ATS2020
Assessment of Transversal Skills

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ΜΑΘΗΣΙΑΚΟΙ ΣΧΕΔΙΑΣΜΟΙ

Έκδοση στα ελληνικά

Με τη συγχρηματοδότηση του
Προγράμματος Erasmus+
της Ευρωπαϊκής Ένωσης

ATS2020 – Assessment of Transversal Skills
ΜΑΘΗΣΙΑΚΟΙ ΣΧΕΔΙΑΣΜΟΙ
Μια συλλογή από μαθησιακούς σχεδιασμούς εκπαιδευτικών (από την πύλη resources.ats2020.eu)

ATS2020 (Assessement of Transversal Skills) Consortium

Φεβρουάριος 2018

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Με τη συγχρηματοδότηση του Προγράμματος Erasmus+ της Ευρωπαϊκής Ένωσης

Αυτή η δημοσίευση αντανακλά την άποψη μόνο του συγγραφέα, και η Επιτροπή δεν μπορεί να θεωρηθεί υπεύθυνη για οποιαδήποτε χρήση των πληροφοριών που περιέχονται σε αυτήν.

ΕΙΣΑΓΩΓΗ

Τα εκπαιδευτικά συστήματα πρέπει να παρέχουν στους μαθητές τις απαραίτητες γνώσεις και δεξιότητες για τη ζωή και την εργασία στον 21ο αιώνα. Οι μαθητές μεγαλώνουν σε έναν ψηφιακό κόσμο ο οποίος φέρνει νέες ευκαιρίες και προκλήσεις, μια κατάσταση που τονίζει την ανάγκη για διδασκαλία και αξιολόγηση των οριζόντιων κομβικών δεξιοτήτων. Το Έργο ATS2020 – Αξιολόγηση Κομβικών Δεξιοτήτων 2020 (Assessment

of Transversal Skills 2020), προτείνει ένα ολοκληρωμένο μοντέλο μάθησης για την ενίσχυση των απαραίτητων οριζόντιων κομβικών δεξιοτήτων των μαθητών/μαθητριών, στο πλαίσιο των υπάρχοντων αναλυτικών προγραμμάτων των χωρών της Ευρωπαϊκής Ένωσης. Ταυτόχρονα, εισηγείται στους εκπαιδευτικούς νέες παιδαγωγικές προσεγγίσεις και καινοτόμα εργαλεία για την ανάπτυξη και αξιολόγηση των δεξιοτήτων αυτών. Το ATS2020 επεκτείνει και αναδεικνύει υφιστάμενα μοντέλα, προσεγγίζοντας τη μάθηση τόσο ως διαδικασία όσο και ως αποτέλεσμα, αναπτύσσοντας ένα πλέγμα μαθησιακών δραστηριοτήτων αλλά και τεχνολογικά και υποστηρικτικά εργαλεία, τα οποία αξιολογούνται, επεκτείνονται και επανασχεδιάζονται. Η μάθηση τεκμηριώνεται μέσα από τη διαδικασία δημιουργίας Ηλεκτρονικού Φακέλου Επιτευγμάτων (ePortfolio), σε τρία επίπεδα (αποθετήριο, χώρος εργασίας και προθήκη επιτευγμάτων), με ενσωματωμένο έναν συνεχή κύκλο αναστοχασμού Η Μάθησή μου. Οι εκπαιδευτικοί και οι μαθητές/μαθήτριες συμμετέχουν ενεργά, συνεργάζονται και λαμβάνουν αποφάσεις βασισμένες σε τεκμήρια καθώς (επανα)σχεδιάζουν τη διδασκαλία και τη μάθησή τους. Για πληροφορίες σχετικά με το έργο ATS2020, συμβουλευτείτε τον ιστότοπο του Έργου στη διεύθυνση http://ats2020.eu και την πύλη πηγών στη διεύθυνση https://resources.ats2020.eu.

Το Έργο Αξιολόγηση Κομβικών Δεξιοτήτων - Assessment of Transversal Skills (ATS2020), υλοποιείται στο πλαίσιο της Πειραματικής Ευρωπαϊκής Πολιτικής και συγχρηματοδοτείται από την Ευρωπαϊκή Επιτροπή μέσω του Προγράμματος Erasmus+ KA3 για την περίοδο 1/3/2015-1/3/2018. Το Έργο εντάσσεται στο πλαίσιο πιλοτικών εφαρμογών καινοτόμων μαθησιακών προσεγγίσεων με στόχο τη διαμόρφωση εκπαιδευτικής πολιτικής. Η ομάδα του Έργου αποτελείται από 17 εταίρους από 11 ευρωπαϊκές χώρες, με συντονιστή το Παιδαγωγικό Ινστιτούτο Κύπρου.

Το Έργο διερευνά την επίδραση που μπορεί να έχει το μαθησιακό μοντέλο ATS2020 στα σχολεία. Κατά τη διάρκεια της σχολικής χρονιάς 2016-2017, το μαθησιακό μοντέλο ATS2020 εφαρμόστηκε σε πιλοτική βάση σε 10 από τις συμμετέχουσες χώρες, με τη συμμετοχή 224 σχολείων, 747 εκπαιδευτικών και 11891 μαθητών.

Για την υποστηρίξη των εκπαιδευτικών σχετικά με την εφαρμογή του μοντέλου μάθησης ATS2020, αυτό το βιβλιάριο συγκεντρώνει επιτυχείς μαθησιακούς σχεδιασμούς ως πηγή για τους εκπαιδευτικούς. Οι εκπαιδευτικοί που ενδιαφέρονται να εφαρμόσουν το μοντέλο μάθησης ATS2020 μπορούν να χρησιμοποιήσουν τους μαθησιακούς σχεδιασμούς, να τους τροποποιήσουν ή να πάρουν ιδέες από αυτούς. Οι εκπαιδευτικοί μπορούν να

αποκτήσουν μια εικόνα του μοντέλου μάθησης και αξιολόγησης ATS2020 και του τρόπου που μπορείν να εφαρμοστεί στην τάξη, χρησιμοποιώντας τα υπάρχοντα αναλυτικά.

Κάθε εκπαιδευτικός μαζί με τον/την εκπαιδευτή/εκπαιδεύτριά του/της ετοίμασαν το μακρο-επίπεδο του μαθησιακού σχεδιασμού και στη συνέχεια συνέχισαν με την ανάπτυξη του μικρο-επιπέδου του μαθησιακού σχεδιασμού. Σε κάθε ανεπτυγμένο μαθησιακό σχεδιασμό, παρέχονται γενικές πληροφορίες για τον μαθησιακό σχεδιασμό και ακολουθεί λεπτομερής περιγραφή των δραστηριοτήτων. Σε κάποιες περιπτώσεις, περιλαμβάνεται και υλικό μαθητών, επιπλέον υλικό και πηγές.

Σε αυτό το βιβλιάριο, υπάρχουν 19 μαθησιακοί σχεδιασμοί στα αγγλικά ανεπτυγμένοι σε επίπεδο μικρο-επιπέδου ως καλές πρακτικές, από τις χώρες οι οποίες συμμετείχαν στην εφαρμογή του Έργου ATS2020, ενώ περισσότερα από 80 πλήρως ανεπτυγμένοι μαθησιακοί σχεδιασμοί είναι διαθέσιμοι στην πύλη πηγών του ATS2020 στην ιστοσελίδα: https://resources.ats2020.eu/learning-designs

Επιπλέον, παρουσιάζονται 10 μακρο-επίπεδα μαθησιακού σχεδιασμού, τα οποία, αν και δεν έχουν αναπτυχθεί πλήρως, μπορούν να δώσουν ιδέες στους εκπαιδευτικούς για να προχωρήσουν με περαιτέρων ανάπτυξη και εφαρμογή. Περισσότερα από 100 μακρο-επίπεδα μαθησιακού σχεδιασμού είναι διαθέσιμα στην πύλη πηγών ATS2020 στη διεύθυνση: https://resources.ats2020.eu/learning-designs. Στην πύλη πηγών του ATS2020 μπορείθτε να εντοπίσετε μαθήματα σε διάφορες γλώσσες, όπως αναπτύχθηκαν από εκπαιδευτικούς.

Σημειώνεται ότι οι μαθησιακοί σχεδιασμοί είναι το έργο των εκπαιδευτικών που τα ανάπτυξαν και δεν έγινε επεξεργασία σχετικά με το περιεχόμενο τους.

Ο πίνακας στην επόμενη σελίδα παρουσιάζει μαθησιακούς σχεδιασμούς στα ελληνικά που είναι διαθέσιμοι στην πύλη πηγών του ATS2020.

Αναμένεται ότι η διαδικτυακή πύλη πηγών θα εμπλουτίζεται συνεχώς από τους εκπαιδευτικούς και εκπαιδευτές. Ως εκ τούτου, σας προσκαλούμε να επισκεφθείτε την ηλεκτρονική πύλη πόρων για περισσότερους μαθησιακούς σχεδιασμούς και να συμβάλλετε στον πλούτο της με δικούς σας μαθησιακούς σχεδιασμούς.

Μαθησιακοι σχεδιασμοι στα ελληνικά διαθέσιμοι στο:

https://resources.ats2020.eu/learning-designs

ΟΛΟΚΛΗΡΩΜΕΝΟΙ ΜΑΘΗΣΙΑΚΟΙ ΣΧΕΔΙΑΣΜΟΙ (ΜΙΚΡΟΕΠΙΠΕΔΟ)				
Α/Α	**Μάθημα**	**Τίτλος**	**Επίπεδο/Τάξη**	**Σύνδεσμος**
1	ΓΕΩΓΡΑΦΙΑ	Εισαγωγή στην Ευρώπη	Δημοτικό, Ε' τάξη	https://resources.ats2020.eu/resource-details/LEDE/europe-intro
2	ΝΕΟΕΛΛΗΝΙΚΗ ΓΛΩΣΣΑ	Μυστήρια – Επιστημονική Φαντασία – «Μηχανή του Χρόνου»	Δημοτικό, Ε' τάξη	https://resources.ats2020.eu/resource-details/LEDE/time_machine_el
3	ΦΥΣΙΚΗ ΑΓΩΓΗ	Παιχνίδια Άμυνας και Επίθεσης Ι	Δημοτικό, ΣΤ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/fisiki_agogi
4	ΦΥΣΙΚΗ ΑΓΩΓΗ	Παιχνίδια Άμυνας και Επίθεσης ΙΙ	Δημοτικό, ΣΤ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/paixnidia-aminas-epithesis-II
5	ΝΕΟΕΛΛΗΝΙΚΗ ΓΛΩΣΣΑ	Ρατσισμός	Γυμνάσιο, Γ΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/Racism
6	ΝΕΟΕΛΛΗΝΙΚΗ ΓΛΩΣΣΑ	Γλώσσες και Πολιτισμοί του κόσμου	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/glosses-politismoi
7	ΝΕΟΕΛΛΗΝΙΚΗ ΓΛΩΣΣΑ	Είμαστε όλοι ίσοι, είμαστε όλοι διαφορετικοί	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/oloi_isoi_oloi_diaforetikoi
8	ΝΕΟΕΛΛΗΝΙΚΗ ΓΛΩΣΣΑ	Ειρήνη - Πόλεμος	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/eirini-polemos
9	ΟΙΚΙΑΚΗ ΟΙΚΟΝΟΜΙΑ	Ανάπτυξη Ασφαλούς και Υγιεινού Τρόπου Ζωής- Υγιείς Τρόποι και Συνθήκες Ζωής	Γυμνάσιο, Β' τάξη	https://resources.ats2020.eu/resource-details/LEDE/Oikiaki-oikonomia-igeia

10	ΟΙΚΙΑΚΗ ΟΙΚΟΝΟΜΙΑ	Κατασκευή από ύφασμα διακοσμημένη με σχέδια με την τεχνική του «Δένω και Βάφω»	Γυμνάσιο, Α’ τάξη	https://resources.ats2020.eu/resource-details/LEDE/Oikiaki-oikonomia-deno-kai-vafo
11	ΠΛΗΡΟΦΟΡΙΚΗ	Προβλήματα που σχετίζονται με το υλικό, λογισμικό, χρήστη	Γυμνάσιο, Γ’ τάξη	https://resources.ats2020.eu/resource-details/LEDE/user-problems
12	ΠΛΗΡΟΦΟΡΙΚΗ	Δίκτυα	Γυμνάσιο, Β’ τάξη	https://resources.ats2020.eu/resource-details/LEDE/diktia
13	ΣΧΕΔΙΑΣΜΟΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑ	Ενέργεια	Γυμνάσιο, Α’ τάξη	https://resources.ats2020.eu/resource-details/LEDE/design-technology-energy
14	ΣΧΕΔΙΑΣΜΟΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑ	Ενέργεια	Γυμνάσιο, Γ’ τάξη	https://resources.ats2020.eu/resource-details/LEDE/energy
15	ΣΧΕΔΙΑΣΜΟΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑ	Ενέργεια	Γυμνάσιο, Γ’ τάξη	https://resources.ats2020.eu/resource-details/LEDE/Sxediasmos-k-texnologia-energy
16	ΦΥΣΙΚΗ	Θερμότητα/Θερμιδομετρία	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/thermotita-thermidometria
17	ΦΥΣΙΚΗ	Στατικός Ηλεκτρισμός	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/statikos-ilektrismos
18	ΦΥΣΙΚΗ	Δυναμικός Ηλεκτρισμός	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/dynamikos-ilektrismos

ΜΑΚΡΟΕΠΙΠΕΔΑ ΜΑΘΗΣΙΑΚΟΥ ΣΧΕΔΙΑΣΜΟΥ				
Α/Α	**Μάθημα**	**Τίτλος**	**Επίπεδο/Τάξη**	**Σύνδεσμος**
1	ΓΕΩΓΡΑΦΙΑ	Ευρώπη - Ιταλία	Δημοτικό, Ε΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/geography_italy
2	ΦΥΣΙΚΕΣ ΕΠΙΣΤΗΜΕΣ	Οι πλανήτες του ηλιακού μας συστήματος	Δημοτικό, ΣΤ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/solar_system
3	ΝΕΟΕΛΛΗΝΙΚΗ ΓΛΩΣΣΑ	Κατευθυντικός Λόγος – Προσκλήσεις	Γυμνάσιο, Γ΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/invitations
4	ΝΕΟΕΛΛΗΝΙΚΗ ΓΛΩΣΣΑ	Ειρήνη-Πόλεμος	Γυμνάσιο, Γ΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/warnpeace
5	ΟΙΚΙΑΚΗ ΟΙΚΟΝΟΜΙΑ	Ανάπτυξη Ασφαλούς και Υγιεινού Τρόπου Ζωής-Φαγητό και Υγεία - Διατροφή Εφήβων & Σχεδιασμός Ισοζυγισμένου Γεύματος	Γυμνάσιο, Β΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/diatrofi-efivwn-isozigismeno-geuma
6	ΟΙΚΙΑΚΗ ΟΙΚΟΝΟΜΙΑ	Ανάπτυξη Ασφαλούς και Υγιεινού Τρόπου Ζωής-Φαγητό και Υγεία – Παράγοντες επιλογής τροφής/Βελτίωση διατροφικών συνηθειών	Γυμνάσιο, Β΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/fagito-igeia
7	ΟΙΚΙΑΚΗ ΟΙΚΟΝΟΜΙΑ	Διατροφή - Χορτοφαγία και διατροφικές τάσεις	Γυμνάσιο, Α΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/oodiatrofi
8	ΠΛΗΡΟΦΟΡΙΚΗ	Λογισμικό εφαρμογών - Εφαρμογή υπολογιστικών φύλλων	Γυμνάσιο, Β΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/excel

9	ΠΛΗΡΟΦΟΡΙΚΗ	Το Υλικό / Αρχιτεκτονική Υπολογιστών-Βασικές έννοιες	Γυμνάσιο, Β΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/iliko-arxitektoniki-pc
10	ΠΛΗΡΟΦΟΡΙΚΗ	Το Υλικό / Αρχιτεκτονική Υπολογιστών-ΚΜΕ – Μνήμη (Κύρια και Βοηθητική)	Γυμνάσιο, Β΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/iliko-pc-kme-mnimi
11	ΠΛΗΡΟΦΟΡΙΚΗ	Το Υλικό / Αρχιτεκτονική Υπολογιστών-Εκτυπωτές-Σαρωτές-Οθόνες	Γυμνάσιο, Β΄ τάξη	https://resources.ats2020.eu/resource-details/LEDE/ektipotes-sarotes-othones
12	ΠΛΗΡΟΦΟΡΙΚΗ	Αναπαράσταση Αλγορίθμων με Λογικά Διαγράμματα Ακολουθιακής Δομής	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/logika-diagrammata-akolouthiaki-domi
13	ΠΛΗΡΟΦΟΡΙΚΗ	Αναπαράσταση Αλγορίθμων με Λογικά Διαγράμματα Δομής Διακλάδωσης	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/logika-diagrammata-domi-diakladosis
14	ΠΛΗΡΟΦΟΡΙΚΗ	Υλικό/Αρχιτεκτονική Η/Υ-Υπολογιστικό Σύστημα-Η Λειτουργική Σχέση του Υλικού και Λογισμικού Η/Υ	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/iliko-logismiko
15	ΣΧΕΔΙΑΣΜΟΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑ	Ηλεκτρισμός – Ηλεκτρονικά	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/electronics
16	ΦΥΣΙΚΗ	Επίλυση προβλήματος στη Φυσική- Ταχύτητα-Ευθύγραμμη ομαλή κίνηση	Γυμνάσιο, Γ' τάξη	https://resources.ats2020.eu/resource-details/LEDE/taxitita

TABLE OF CONTENTS *(in Alphabetical order by Country)*




COMPLETE LEARNING DESIGNS (Micro-level)

BELGIUM

Design and Technology: The technical process / Transport

I. GENERAL DESCRIPTION

Country	Belgium
Author/Editor	Tom Van den Broeck
School	Het Laerhof
Subject	**DESIGN AND TECHNOLOGY**
LD Title	**The technical process / Transport**
Year group	Secondary Education – Second Year (13-14 years)
Duration	10 periods of 50 minutes
Short description	Students are introduced to the technical process. They run true successive steps of the technical process to realize a simple technical system (problem definition, design phase, implementation, initial starting and evaluation). They do research of the different components and subsystems in a technical system. They make choices involving technical systems and think about criteria such as environment, society, price, quality, safety and efficiency. They brainstorm about the problem solution, they search and collect modes of transport, research the evolution of modes of transport, transmissions, materials, switch leg. In addition, they present the evolution of modes of transport, research and discuss the impact of different modes of transport on people, planet and profit, search job vacancies and research of employment. The final product is building a race car which is sufficient enough to transport a marble.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/technology-the-technical-process

II. Learning Design Macro-level

Digital Tools (affordances)
- Padlet (Learning diary)
- Forums/groups/showbie (Communication)
- Google forms (Peer evaluation)

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Build a race car which is sufficient enough to transport a marble
- Run true successive step of the technical process to realize a simple technical system:
  - Problem definition : brainstorming
  - Design phase : make sketches (create artwork) – chose the right requirements
  - Implementation : build the car
  - Initial starting: test the car, his speed, etc.…
  - Evaluation : be critical to improve the car
- Do research of the different components and subsystems in a technical system
  Make choices involving technical systems. Thinking about criteria: environment, society, price, quality, safety, efficiency.

Tasks to develop these competences towards the learning outcomes

- Introduction to the technical process (iBook and iTunes U)
- Brainstorming about the problem solution (in group and then as a class -> Padlet)
- Search and collect (images) mode of transport (In groups)
- Research the evolution of mode of transport, transmissions, materials, switch leg (circuits) (In groups)
- Present the evolution of mode of transport.
- Research and discuss the impact of different mode of transport on people, planet and profit. (in their group and then as a class)
- Search job vacancies
- Research of employment (men-women ; diploma ; driving license ; …)
- Completion of my learning journal (self-evaluation on a google doc)

Skills and competences necessary to reach the expected outcomes

Targeted:

- Search, collect, retrieve and share information (Information literacy skills)
- Work with others on a common task (collaboration skills)
- Plan, monitor, share their learning (autonomous learning skills)
- Develop criteria and apply them on specific tasks (autonomous learning skills)

Emerging:

- Work with others an a common task (collaboration – communication)
- Use digital technologies to support their tasks (digital skills)

Leaning outputs – through all stages (assessment)

- Google forms for student's peer-assessment and feedback.
- Presentation on the evolution of mode of transport.
- Discussion forums with student's comments on different technics, on the impact of different mode of transport, on people, planet and profit.
- Pros and cons for each mode of transportation and technics.
- Student's learning diary

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	**Transversal skills**					
Act_1 Introduction to the technical process. Act_2 Fill in my learning journal on google doc / Mahara	Describe what the technical process is.	Plan their learning (autonomous learning skills)	1.1 Students attend teachers' iBook and iTunes U course. 1.2 Students visit Padlet (technical process) 2.1 Students fill in their "My learning journal" what they already know and what they would like to learn identifying their goals. (google doc) *Revisit and fill in at their own needs during the whole unit.*	Prepare and present an iBook and iTunesU course. Guidelines to work with iBook's (chapter 1) and Padlet	iBook's iTunes U Padlet Google docs / Mahara	Plenary discussion Group work	Student's complete individual my learning journals with identified prior knowledge and learning goals.
Act_3 Review the curricula of technology		– Search collect retrieve and share information (information literacy learning skills) – Use digital technologies to support their tasks (digital skills)	3.1 students review the curricula of technology *Students read and review the curricula of technology to understand what they have to achieve* 3.2 students get the main goals out of the curricula and post them on a Padlet *Students get the main goals out of the curricula and post them on a Padlet to discuss*	Present the curricula of the technical process in an iBook	iBook Padlet Google doc Mahara	Individual work	Students learn what they have to achieve
ACT_4 Fill in my learning journal on google doc / Mahara		Plan their learning (autonomous learning skills)	4.1 students fill in in their "my learning journal" their strategy to achieve their goals. *Revisit and fill in at their own needs during the whole unit*	Review students goals and coach them for their strategies	Google docs / Mahara	Individual work	Students complete individual my learning journal with their goals and the strategy to achieve them

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
ACT_5 Identify the technical process	Identify the technical process	Work with others on a common task (collaboration skills) Develop criteria and apply them on a specific task (autonomous learning skills) Use digital technologies to support their tasks (digital skills)	5.1 students identify the technical process by finding 5 solutions *Students' work in groups and view the collected solutions. Each group discuss the solutions of the sufficiency to transport a marble. They post their response as a group and the Padlet wall or in showbie/Mahara* 5.2 Students visit other groups' Padlet and comment *each group read the solutions of the other groups and provides feedback.* 5.3 students agree on a list of solutions and thereby the different steps of the technical process through a teacher lead discussion with the whole class. *Students agree on a list of solutions and thereby the different steps of the technical process in collaboration with the teachers*	Create an instruction in the iBook Create a Padlet wall / group and a Padlet wall to publish a rubric Monitor and support students activity Create a class in showbie or group in Mahara	Showbie Mahara groups Padlet	Group work Plenary discussion	A classroom accepted rubric with steps of the technical process Each group's list of solutions Discussion with students' communication and collaboration on identifying the technical process.
Act_6 Search and collect images of mode of transport	Refer to different mode of transport	Work with others on a common task (collaboration skills)	6.1 students go online and search for images of different mode of transport. *Students work in group and search online resources and collect images of modes of transport. The teacher provides key trends in transportation mode.* 6.2 Students visit their Padlet / group on showbie / Mahara and create a collection of their images. Students upload their pictures on their wall	Create Padlet walls / showbie class / Mahara groups Monitor and support students activity Give feedback	Padlet walls / showbie class / Mahara groups	Group work	Upload movies/images of transportation modes

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
Act_7 Research the different mode of transport	Research the different transportation modes	Work with others on a common task (collaboration skills) Develop criteria and apply them on a specific task (autonomous learning skills) Use digital technologies to support their tasks (digital skills)	7.1 Students view images and movies and give feedback on the different transportation modes. Referring to safety and environment. *Students see images and movies in the iBook* *Students give feedback on mode of transport referring safety and environment in Mahara / showbie / Padlet. The pros and cons of the transportation modes will be collected on Padlet / showbie / Mahara.* 7.2 Students visit the work of their peers and give feedback using google forms. *Each group read the pros and cons of the other groups and provides feedback.* 7.3 students agree on a list of pros and cons and thereby find the best transportation mode. The discussion is led by the teacher with the whole class. *Students agree on a list of pro and contra of transportation modes in collaboration with the teacher.*	Create an instruction in the iBook Create a Padlet wall / Mahara group / showbie class Create a google form Monitor and support students activity Lead the discussion with the whole class.	Padlet Showbie/Mahara Google forms	Group work Plenary discussion	Group list pro and contra of transportation modes.
Act_8 Search and collect images of the evolution of transport	Refer to evolution of transport	Work with others on a common task (collaboration skills) Use digital technologies to support their tasks	8.1 students go online and search for images of evolution of transport. *Students work in group and search online resources and collect images of evolution of transport.* 8.2 Students visit their Padlet / group on showbie / Mahara and create a collection of their images. They have to place the	Create Padlet walls / showbie class / Mahara groups Monitor and support students activity Give feedback	Padlet walls / showbie class / Mahara groups	Group work	Upload images of the evolution of transport

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
		(digital skills)	pictures in chronological order on a poster. *Students upload their pictures in a folder* 8.3 students comment the evolution by technic and the advantages of the evolution. *Students comment the technology and the advantages of the evolution on the poster.*				
Act_9 Peer evaluation and feedback of students artwork		Share their learning and use peer and teacher feedback for self-evaluation (autonomous learning skills) Use digital technologies to support their tasks (digital skills)	9.1 students upload their poster with their comment. *students upload their poster on a Padlet wall/ showbie / Mahara folder* 9.2 Students visit the work of their peers and give feedback. *Students comment on each other's creations.* 9.3 students agree on the advantages of the evolution of the transportation mode. The discussion is led by the teacher with the whole class. *Students agree on the advantages of the evolution of transportation modes s in collaboration with the teacher.*	Review students artwork Read and review group's feedback Monitor and support students feedback	Showbie / Mahara / Padlet	Groups work Plenary discussion	Groups pages with their posters Discussion forums with peer assessment and feedback on the artwork Students' chronological view of the evolution of transportation mode.
Act_10 Create an artwork integrating the technical process	Create an artwork integrating the technical process: Students build a race car which is sufficient	(Creativity skills)	10.1 Students plan on the artwork they want to create, find the necessary material and work on it. - Students make a sketch - Students chose the right equipment - Students build the car	Individual guidance and feedback Monitor and support students creative work	Mixed media IPad Camera Technical materials	Group work Individual work	Students build a race car which is sufficient enough to transport a marble

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
	enough to transport a marble		- Students will test the car *Students create an artwork in group with the instruction to integrate the technical process. Students and the group will refer to the rubric the created. Students edit their strategies*	Review students "my learning journal"	Mahara / Padlet / showbie		
Act_11 Peer evaluation and feedback of students artwork		Share their learning and use peer and teacher feedback for self-evaluation (autonomous learning skills) Use digital technologies to support their tasks (digital skills)	11.1 students upload a movie of their test on Mahara / google / showbie *students film their artwork and their test and upload it to* Mahara / google / showbie 11.2 Students visit the work of their peers and they give feedback on a google doc / Mahara forum / showbie *Students comment on each other's creations and teacher assigns each member of the group to assess his/her groups' artwork referring to the artwork.* 11.3 students edit their work based on the feedback given and based on their own self reflections. Students read their peers and teachers comment and edit their cars. Each group / student write a final journal reflecting on their collaboration with their peers and what and how they have learnt	Review students artwork in showbie /forum Read and review groups feedback Monitor and support student edit process Read and review students "my learning journal"	Mahara pages – forum Google docs / forms showbie	Group/individual work	Group pages with their creations Discussion forum with students peer assessment and feedback on their car. Students group artwork Students individual my learning journal with self-assessment and reflection entries
Act_12 Identify job ads about technical process and transportation	Identify the job ads for men and women	Work with others on a common task (collaboration skills)	12.1 students identify the job ads for men and women on a Padlet or Mahara *Students work in groups and view the collected job ads. Each group discuss the job ad and if it is accessible for men and or*	Create a Padlet wall / group and a Padlet wall to publish a rubric	Mahara groups Padlet	Group work Plenary discussion	A classroom accepted rubric on job ads Discussion with students communication and

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
		Develop criteria and apply them on a specific task (autonomous learning skills) Use digital technologies to support their tasks (digital skills)	*women. They post their response as a group advertisement the Padlet wall or in showbie/Mahara* 12.2 Students visit other groups Padlet and comment *Each group read the notes of the other groups and provides feedback.* 12.3 students agree on a list of job ads for men and or women through a teacher lead discussion with the whole class. *Students agree on a list* of job ads for men and or women *collaboration with the teachers*	Monitor and support students' activity Create a class in showbie or group in Mahara			collaboration on identifying a job in the transportation mode
Act_13 Create an artwork to present themselves	Create an artwork making a movie to promote themselves for a job.	(Creativity skills)	13.1 Students plan on the artwork they want to create, find the necessary material and work on it. - Students promote themselves (mind map – Padlet) *Students open explain everything and make a film* *Students create an artwork individual with the job ads in remind. Students and the group will refer to the rubric the created. Students use their promotion mind-map*	Individual guidance and feedback Monitor and support students creative work Review students "my learning journal"	Mixed media IPad : explain everything Camera Mind-map Mahara / Padlet / showbie	Individual work	Students make a movie to present themselves
14_ Peer evaluation		Share their learning and use peer and teacher feedback for self-evaluation (autonomous learning skills)	14.1 students upload their movie on Mahara / google / showbie *students present their artwork on* Mahara / google / showbie	Review students artwork in showbie /forum Read and review groups feedback	Mahara pages – forum Google docs / forms showbie	individual work	Group pages with their creations Discussion forum with students peer assessment and feedback on their movie.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
		Use digital technologies to support their tasks (digital skills)	14.2 Students visit the work of their peers and they give feedback on a google doc / Mahara forum / showbie *students and teacher comment on each other's creations* 14.3 students edit their work based on the feedback given and based on their own self reflections. Students read their peers and teachers comment and edit their cars. Each student write a final journal reflecting on their collaboration with their peers and what they have learnt.	Monitor and support student edit process Read and review students "my learning journal"			Students group artwork Students individual my learning journal with self-assessment and reflection entries
Act_15 Complete learning journal		Plan, monitor share their learning (autonomous learning skills)	15.1 fill in their learning journal, their reflection on their work and what kind of evidence they have for their learning achievements *Revisit and fill in at their own needs during the whole unit.*	Review students' journal and coach them for their discussions	Mahara / Padlet / showbie : iTunes U	Individual work	Students' individual learning journal with their self-assessment and description of evidence to support their learning achievements
Act_16 Design and development of individual ePortfolios on technical process of transportation mode	Create an ePortfolio of their learning of the technical process	Plan, monitor share their learning (autonomous learning skills)	16.1 Students design and develop their individual ePortfolio 16.2 Students share their individual ePortfolio and give and receive feedback	Review students' ePortfolio	Mahara	Individual work	Students individual ePortfolios on their learning on the technical process

CROATIA

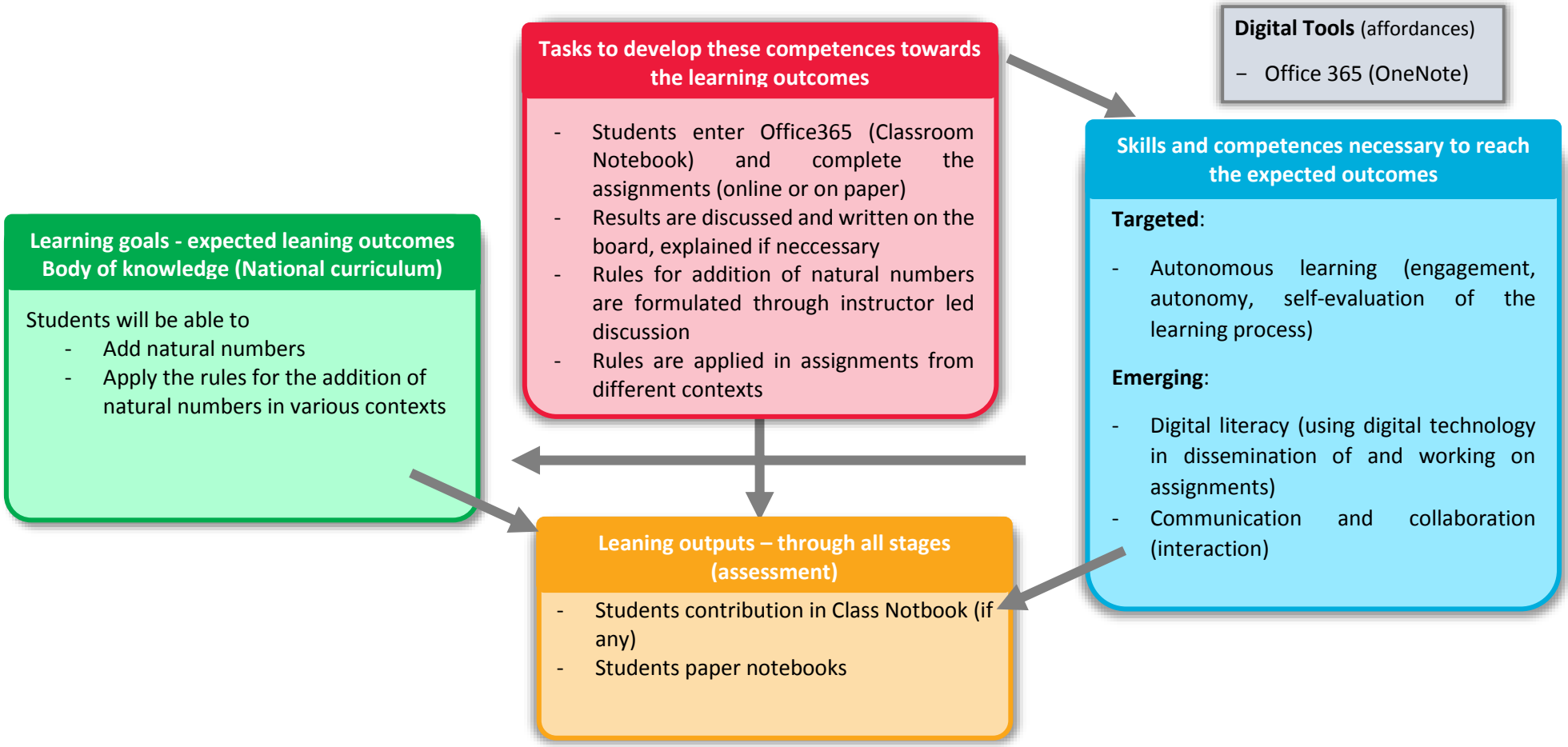
Mathematics: Addition of natural numbers

Mathematics: Addition of natural numbers

I. GENERAL DESCRIPTION

Country	Croatia
Author/Editor	Tomislava Jukić
School	Primary School Retfala
Subject	**MATHEMATICS**
LD Title	**Addition of natural numbers**
Year group	6th grade (11-12 year olds)
Duration	3x45’
Short description	Students log in to Class Notebook where some mathematical assignemnts have been enetered, requiring from them to revise previous learning content (positive and negative numbers, adding zero…). Teacher moderates a class discussion where students explain why they completed assignements in a certain way. The rules for addition of natural numbers are formulated through this discussion.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/addition
Learning Design in Croatian	https://resources.ats2020.eu/resource-details/LEDE/addition

II. Learning Design Macro-level



III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
Activity 1: Addition of natural numbers in Classroom Notebook	To be able to add natural numbers	Autonomous learning – awareness of own knowledge Digital skills – logging into O365, finding the content	Each student logs into O365, they find the mathematical assignments, work on them in their digital or paper notebook	Assisting with passwords Reminding students what they already know about natural numbers	Office 365	Individual work on the computer or in the paper notebook	Completed assignments in Classroom notebook or in the paper notebook	Verbal feedback from the teacher
Activity 2: Discussion about the results of Activity 1	To be able to add natural numbers	Autonomous learning – defining goals for learning	Students talk about the result of each assignment *My Learning Journal:* Attempt to answer what they know and what they need to learn	Teacher moderates a discussion		Whole class discussion		
Activity 3	To be able to add natural numbers	Autonomous learning – developing a strategy for learning	Each student completes more assignments (similar calculations but from different contexts) in O365	Teacher supervises individual work and motivates students to make analogy,		Individual work		
Activity 4	To be able to add natural numbers	Autonomous learning – evaluating strategy	Group discussion – an attempt to formulate rules for addition of different natural numbers and in a variety of contexts *My Learning Journal:* Attempt to evaluate own learning	Teacher moderated discussion		Whole class discussion	My learning – answers to all 5 questions	

CROATIA

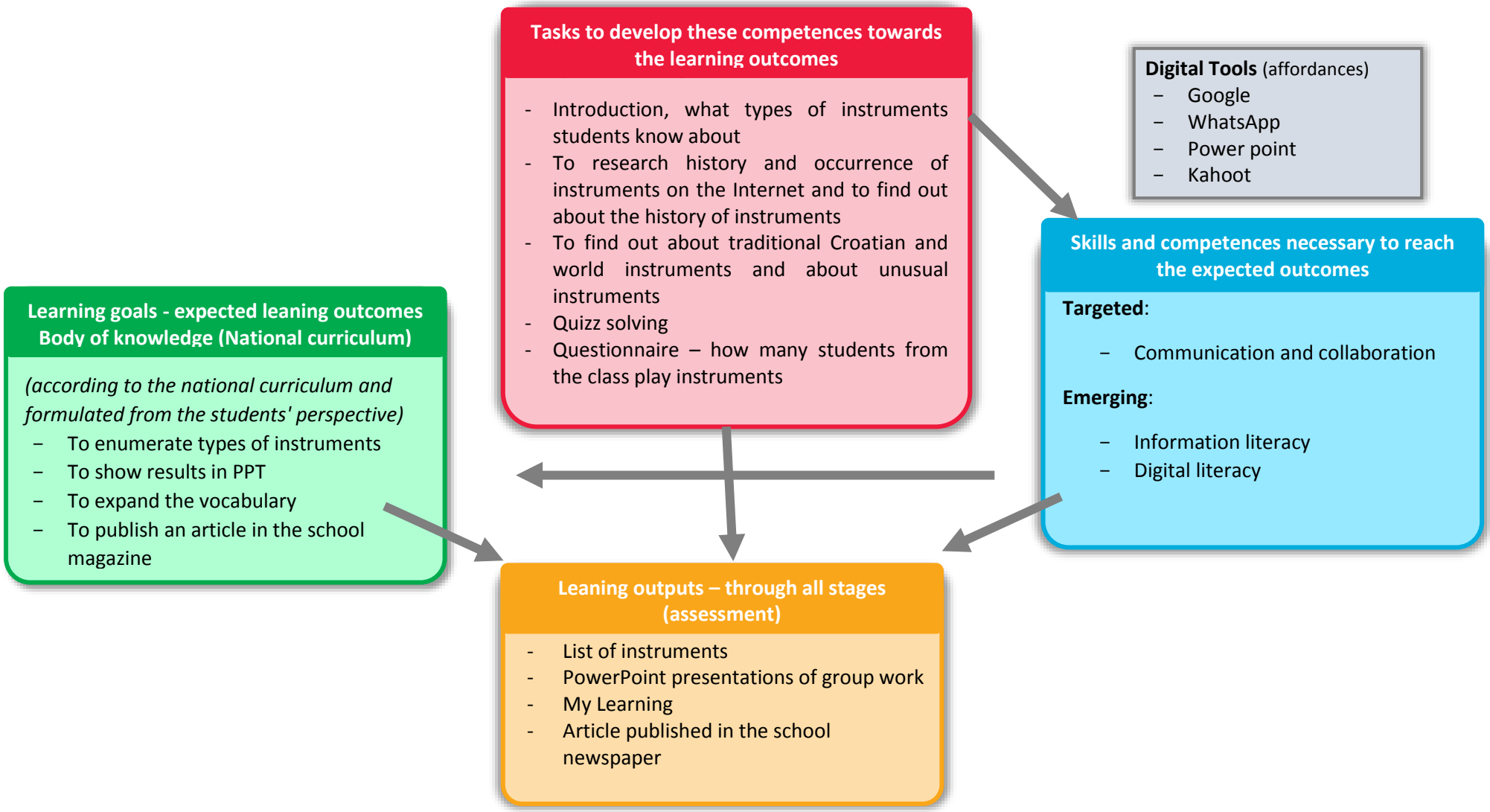
English: Musical Instruments

English: Musical Instruments

I. GENERAL DESCRIPTION

Country	Croatia
Author/Editor	Sandra Prpić
School	Primary School Brezovica
Subject	**ENGLISH**
LD Title	**Musical Instruments**
Year group	7th grade (13-14 years old)
Duration	3x45'
Short description	In the first part of this lesson teacher moderated a class discussion (in English) to establish how much students already know about musical instruments. They were then expected to work in groups in order to develop group presentations about musical instruments. They were instructed to search for certain types of information in school and at home. They presented their group work and discussed about this experience, particularly because they had a public presentation for international audience. Writing the article for school magazine had to be left for later occasion and mostly homework.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/Musical_Instruments
Learning design in Croatian	https://resources.ats2020.eu/resource-details/LEDE/musicalInstruments

II. Learning Design Macro-level



III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
Activity 1: Introduction	Determine how much students already know about musical instruments	Communication and collaboration: Listen and express oneself, discussion,; Autonomous learning: Identify their existing knowledge and skills in reference to the leaning context	Discussion *My Learning Journal:* To answer the first and the second question in My learning template	Supervising and asking questions, led the discussion	One Note	Discussion, Individual	My learning	My learning Self-evaluation and teacher
Activity 2: Research	To find out new instruments and to learn new expressions in English	Autonomous learning: Define goals for their learning to achieve	Research on Croatian and international and some unusual musical instruments and make notes *My Learning Journal:* To answer the third and fourth questions in My learning template	Supervising	One Note	Individual	My learning	My learning Self-evaluation and teacher
Activity 3: Making PowerPoint and presentation	Formulate results in written form in English	Collaboration, use language, discussion, listen and express oneself, use language	Making PowerPoint presentation for the homework in the groups; Oral presentation in front of a class and discussion	Supervising and motivating the students		PPT WhatsApp	Verbal feedback	Students
Activity 4: Kahoot	Repetition of what students learned	Interaction and collaboration	Solving the quiz in the group work	Conducting the quiz	Kahoot	Group work	Quiz result	Points Kahoot (Teacher)
Activity 5: Discuss and debate	To exercise communication in English	Discuss and debate	Discussion about making presentation *My Learning Journal:* To answer the fifth question in My learning template	Moderate the discussion		Individual		Verbal feedback (Students, Teacher)

CYPRUS

Computer Science: Hardware, software and user related problems

I. GENERAL DESCRIPTION

Country	Cyprus
Author/Editor	Pantelis Nikola
School	Lefkara Gymnasium
Subject	**COMPUTER SCIENCE**
LD Title	**Hardware, software and user related problems**
Year group	Gymnasium, C' class
Duration	4X40'
Short description	Students in this unit will be working collaboratively to search information online in order to prepare rules for the correct body position while using the computer, they will be preparing an informative digital poster on hardware problems and will be creating a Mahara page on problems computer users may encounter.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/computer-science-computerRelatedProblems
Learning Design in Greek	https://resources.ats2020.eu/resource-details/LEDE/user-problems

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- Mahara group

Tasks to develop these competences towards the learning outcomes

- Complete "My learning journal" fields
- Complete book worksheets
- Search online, in books and notebooks for information that will help them complete the following activities
- Create a poster on a hardware or software problem
- Write rules for the correct body position while using a computer
- In groups, students create a Mahara page on a computer users' problem
- Create ePortfolio

Skills and competences necessary to reach the expected outcomes

Targeted

Information literacy:
1. Locate, evaluate and use information from a variety of sources and media.
2. Process information and construct new knowledge.

Creativity:
3. Innovative and creative use of tools and resources.

Communication and Collaboration:
4. Participate in groups
5. Interact with classmates and teacher
6. Communicate information effectively

Emerging

Autonomous learning:
7. Recognise basic needs for learning based on pre-existing knowledge
8. Set targets to achieve and develop strategy for their achievement

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

Students should be able to identify problems regarding the computer system. In particular they should be able to:

- Describe briefly hardware problems, in particular: environmental factors, power cuts, natural wear, computational needs
- Describe briefly software problems, in particular: data loss, malware, compatibility problems, new computing needs, user errors
- Describe briefly user-related problems, in particular: physical conditions, decrease of productivity, addiction, loss of personal data
- Explain the role of ergonomics in preventing physical conditions and other user problems and discuss and apply specific rules.
- Suggest ways of addressing and preventing aforementioned problems.

Leaning outputs – through all stages (assessment)

- Completed worksheets
- Posters (in a design software program, Word or PowerPoint)
- Mahara page with students' assignments on computer users' problems
- Students' comments on a Mahara page on wrong position on the computer (based on an image)
- Mahara pages on problems computer users may confront

III. Learning Design Micro-level

**The learning goals and learning outcomes for transversal skills in the following table are presented by the number indicated in the list of the Macro-level.*

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills *						
1. My Learning journal	- Identify previous knowledge	Skills: 7,8	- Students complete in their "My Learning journal" the fields previous knowledge, goals, strategies	-Gives guidelines to students to fill their learning journals	- Students learning journals in Mahara - Guidelines for filling students' learning journals in Mahara	- Individual work on computers (Mahara)	- Students learning journals in Mahara with completed in fields of previous knowledge, goals, strategies	- Teacher reads students' learning journals
2. Hardware and software problems	- Describe briefly hardware problems and suggest ways of prevention and troubleshooting - Describe briefly software problems and suggest ways of prevention and troubleshooting	Skills: 1, 2, 3, 5, 6	- Teacher presents information about hardware problems and a whole class discussion follows - Students complete worksheets in the students' book - Teacher presents information about software problems and a whole class discussion follows - Students complete the relevant worksheets in the students' book - Students discuss worksheets' answers and correct them - Students search online for information on a hardware or	-Presents information on hardware and software problems -Guides students to complete their worksheets and correct them -Helps students create their posters and upload them to Mahara	- Teacher presentation - Students' workbook - Mahara page - (Students choose the software they are going to use to create their poster)	- Teacher presentation - Completion of worksheets - Individual work	- Completed worksheets - Posters	<u>Peer assessment</u> Students comment each other's posters

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills *						
			software problem and create digital posters - Students upload their posters in Mahara - Students comment on each other's posters (in Mahara – using the 'comments' section)					
3. Computer users' problems	- Describe briefly user-related problems, in particular: physical conditions, decrease of productivity, addiction, loss of personal data and suggest ways of facing and preventing them - Explain the role of ergonomics in preventing physical conditions and other user problems and discuss and apply specific rules.	Skills: 1, 2, 3, 4, 5, 6	- Students see in Mahara a photo of someone in front of a computer with bad body posture. Students are asked to read information from their books on physical conditions associated with the use of computers and comment the person's posture in the photograph. - Students work in small groups to present, in Mahara, one of the problems that computer users may encounter (physical conditions, decrease in productivity, addiction, loss of personal data) - Students search online for more information. - Students complete a quiz on the unit.	-Prepares Mahara page with instructions -Prepares groups' Mahara pages -Guides students through their work	- Mahara pages for the activities	- Individual work - Group work	- Comments from all students in Mahara for the person posture in the photograph - Mahara Pages for problems that computers users may face - Completed quiz from all students	<u>Teacher assessment</u> Teacher provides formative feedback on students' work Students complete a quiz which examines whether the subject area goals are achieved.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills *						
4. Completion of My Learning journal and creation of ePortfolio		Skills: 3, 6	- Students complete their My Learning journals - Students create their ePortfolio for the unit - Students complete a self-evaluation tool on their information literacy skills (in their ePortfolio)	-Gives instructions and guides the students	- Mahara	- Individual work	- My Learning journal for every student - ePortfolio for every student	<u>Teacher</u> Teacher provides formative feedback on students' work Provides feedback on their ePortfolios <u>Students' self-assessment</u> Students complete a self-evaluation on their information literacy skills

IV. Material, resources and students' artefacts

Student self-assessment tool on their information literacy skills

The tool is part of the ATS2020 Formative Self-Assessment Scaffolding Tool of Students' Competences and Skills (http://resources.ats2020.eu/resource-details/SCTS/assessment-student). The tool was included in the students' ePortfolios.

Εργαλείο Αυτοαξιολόγησης μαθητή

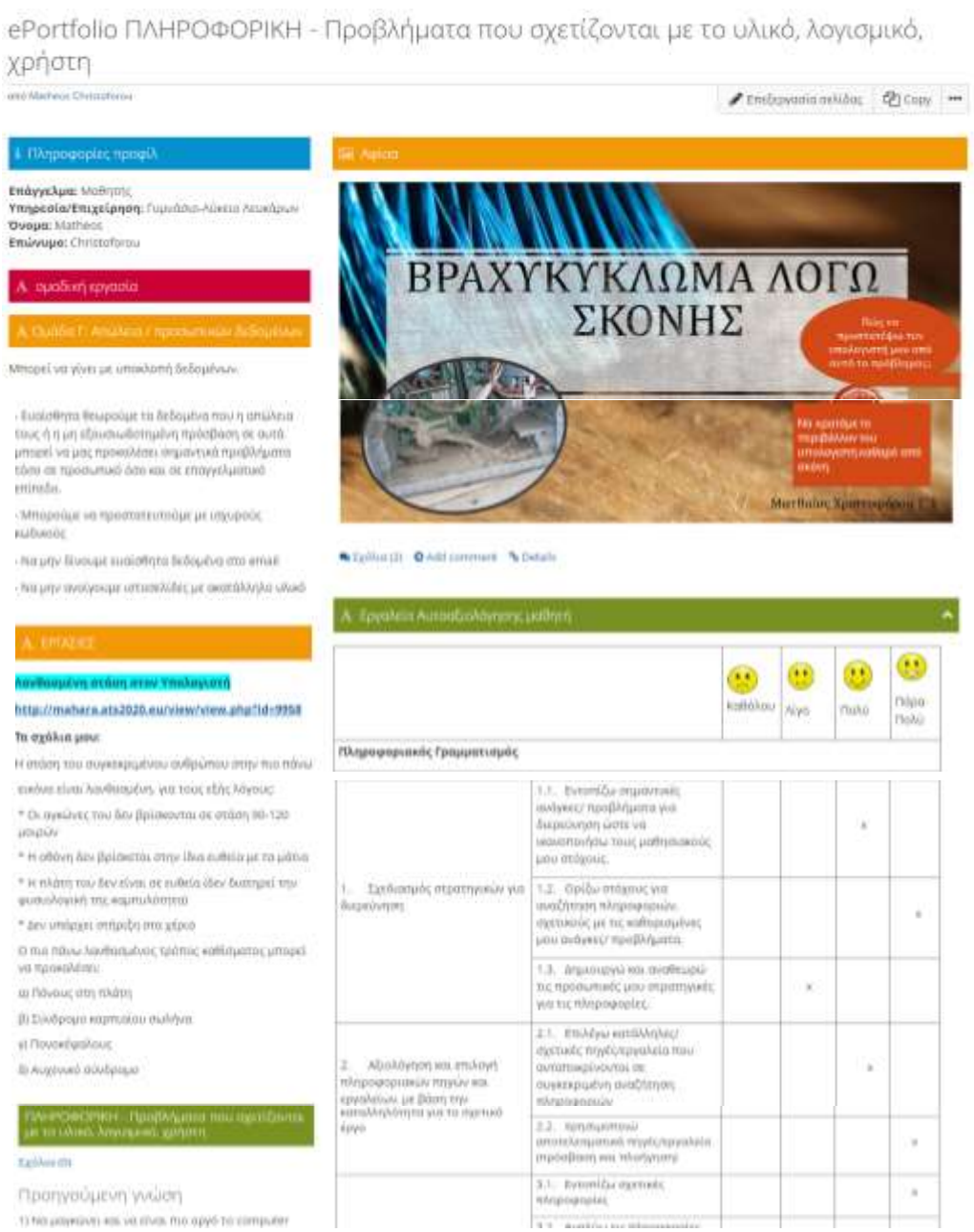
		Καθόλου	Λίγο	Πολύ	Πάρα Πολύ
Πληροφοριακός Γραμματισμός					
1. Σχεδιασμός στρατηγικών για διερεύνηση	1.1. Εντοπίζω σημαντικές ανάγκες/ προβλήματα για διερεύνηση ώστε να ικανοποιήσω τους μαθησιακούς μου στόχους.				
	1.2. Ορίζω στόχους για αναζήτηση πληροφοριών, σχετικούς με τις καθορισμένες μου ανάγκες/ προβλήματα.				
	1.3. Δημιουργώ και αναθεωρώ τις προσωπικές μου στρατηγικές για τις πληροφορίες.				
2. Αξιολόγηση και επιλογή πληροφοριακών πηγών και εργαλείων, με βάση την καταλληλότητα για το σχετικό έργο	2.1. Επιλέγω κατάλληλες/σχετικές πηγές/εργαλεία που ανταποκρίνονται σε συγκεκριμένη αναζήτηση πληροφοριών				
	2.2. Χρησιμοποιώ αποτελεσματικά πηγές/εργαλεία (πρόσβαση και πλοήγηση)				
3. Εντοπισμός, οργάνωση, ανάλυση, αξιολόγηση, σύνθεση και ηθική χρήση πληροφοριών από ποικιλία πηγών και μέσων	3.1. Εντοπίζω σχετικές πληροφορίες				
	3.2. Αναλύω τις πληροφορίες και τα δεδομένα που παρουσιάζονται σε ποικιλία μορφών				
	3.3. Αξιολογώ κριτικά τις πληροφορίες				
	3.4. Αποθηκεύω και ανακτώ πληροφορίες				

Exemplar ePortfolio of the unit “Hardware, software and user related problems”

Student’s profile

Student’s exercises

Student’s “My Learning journal”



Student’s poster (Short circuit due to dust)

Student’s self-assessment

CYPRUS

Geography: Introduction to Europe

Geography: Introduction to Europe

I. GENERAL DESCRIPTION

Country	Cyprus
Author/Editor	Raouna Maria / Hadzittofi Panayiota
School	Lympia Primary School
Subject	**GEOGRAPHY**
LD Title	**Introduction to Europe**
Year group	Primary, 5th Grade
Duration	5 X 80’
Short description	This unit aims to introduce students to the unit Europe and teach them about its basic geographic and political features, its natural and climatic characteristics, the basic parameters for its industrial, social and cultural development as well as learn the basic facts of the EU (historical background - establishment, member countries) and the relation between Cyprus and the EU.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/introduction_europe
Learning Design in Greek	https://resources.ats2020.eu/resource-details/LEDE/europe-intro

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- Mahara
- My Learning (Journals)

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Students learn about the basic geographic (e.g. Europe's position, boarders, mountain ranges, seas, rivers) and political features (e.g. population, religions, names of countries / capitals, hour) of Europe.
- Students learn about Europe's natural and climatic characteristics.
- Students learn about the basic parameters for its industrial, social and cultural development.

Tasks to develop these competences towards the learning outcomes

- Complete worksheets about the unit Europe.
- Search in groups about the geographic, political and cultural features of Europe.
- Create electronic questionnaires about Europe (Google Forms).
- Create a blog for the unit Europe.
- Create «Climate Games» about Europe.
- Create verbal weather forecast content about Europe's areas.
- Create a weather forecaster avatar.
- Participate in group discussions on the forum.
- Participate in an online debate.
- Create a presentation about Europe's development.

Leaning outputs – through all stages (assessment)

- Google Form questionnaire about Europe.
- Blog for the unit Europe.
- «Climate Games» about Europe.
- Weather forecaster avatar.
- Presentation about Europe's development.
- Self-evaluation.
- Feedback – Assessment from teacher.
- Peer evaluation.
- «My Learning journal» for the unit «Introduction to Europe».
- Students' individual ePortfolio on the unit «Introduction to Europe».

Skills and competences necessary to reach the expected outcomes

Targeted

Collaboration and Communication

1. Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments.
2. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
3. Contribute to project teams to produce original works or solve problems.

Creativity and Innovation

1. Innovating and creatively using tools and resources.
2. Create original works as a means of expression.

Information Literacy

1. Plan strategies to guide inquiry.
2. Evaluate and select information sources and tools based on the appropriateness to specific tasks.
3. Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media.
4. Process information and construct new knowledge.

Emerging

1. Use digital technologies to support their learning (digital skills).
2. Autonomous learning.
3. Critical thinking.

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
LESSON 1 Activity 1: *Lesson Introduction*			**<u>Task 1.1:</u>** Teacher informs students about the targeted goals of the unit. More specifically, teacher informs students that the aim of the unit is to introduce them to Europe, so that students: – Can be taught the basic geographic (position, boarders, mountain ranges, seas, rivers) and political features (population, religions, names of countries/capitals, hour) of Europe. – Learn the natural and climatic characteristics of Europe. – Learn the basic parameters of its industrial, social and cultural development. **<u>Task 1.2:</u>** Teacher asks students to go to their My Learning journal and note down in the tab "Prior knowledge" what they already know about Europe. Next, teacher asks students to note down in the tab "Setting goals" what they don't know about Europe, and in the tab "Strategies" how they would like to	- Prepares the lesson (instructions, presentations, Google Forms) in Mahara. - Informs students about the goals of the unit. - Guides students to complete My Learning journal.	- Mahara - My Learning journal	- Individual work	- Students complete the first three tabs in "My Learning journal".	

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
			work for this unit; i.e. individually, in pairs or in groups.					
Activity 2: *Let's Begin …*	**Subject area goals** - Students identify and learn Europe's cultural features.		**Task 2.1:** Teacher asks students to watch a video in Mahara titled **"European Capitals"** and post on the forum which countries and landmarks they have identified or distinguished from the video, and share amongst them any possible personal memories from some of those cities / capitals as well as any feelings that the video might have inspired, even its music.	- Informs students about the task they have to do. - Guides students. - Facilitates the discussion.	-Mahara -Video "European Capitals" -Forum (discussion)	-Individual work -Group discussion	- Write on the forum European countries and landmarks, and share their own personal memories and feelings from some of those cities / capitals.	
Activity 3: *Let's get to know Europe better!*	**Subject area goals** -Students learn the basic geographic (e.g. Europe's position, boarders, mountain ranges, seas, rivers) and political features (e.g. population, religions, names of cities / capitals, hour) of Europe.	**Collaboration & Communication** - Students interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments. - Students communicate information and ideas effectively to multiple audiences using a variety of media and formats. - Students contribute to project teams to produce original	**Task 3.1:** Teacher asks students to watch a **presentation about Europe** and collaborate in groups. More specifically, teacher asks each team's members to focus on the corresponding pages that have been assigned to each team, as shown below. Group 1: Pages 1-13 Group 2: Pages 14-21 Group 3: Pages 22-52 Group 4: Pages 53-end Teacher asks each team to write 10 questions (multiple-choice or short answers) for their peers based on the pages they have studied. The questions will be created on Google Forms.	- Informs students about the task they have to do. - Guides students. - Facilitates the procedure, whenever is necessary. -	-Mahara -Presentation about Europe - Google Forms - Self-evaluation questionnaire	Group work (collaboration)	- Each team prepares a Google Form with multiple-choice questions regarding Europe's geographic features.	Self-evaluation of questionnaire's content. (see learning design appendix)

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
	- Students learn the natural and climatic characteristic of Europe. - Students learn the basic parameters for its industrial, social and cultural development.	works or solve problems.	**Group 1** **Group 2** **Group 3** **Group 4** When the questionnaires have been completed, teacher asks students to answer the other teams' questions.					
Activity 4: *Blog*			**Task 4.1:** Teacher informs that one of the upcoming activities is the creation of **a blog about Europe,** since the upcoming Geography lessons of the 5th Grade will be about the European countries. Teacher informs that the posts on the main page will be a summary / main parts of a lesson, and each team will have their own page on the blog so that they can post their digital projects, which they will do in various lessons.	- Informs students about the blog they will create and refers them to **http://europelympiaclass5.blogspot.com.cy/** to see the blog.	- Mahara - Blog	- Individual work	- Students browse the blog, which they will create in this unit.	
Activity 5: *Introductory Game*			**Task 5.1:** Teacher informs students that on the lesson's page in Mahara there is a game regarding the location of European countries, and that they can play and practise with it whenever they want, either individually or in groups.	- Informs students about the game.	- Mahara - Game	- Individual or group activity in their free time.	- Students will locate the European countries through the game.	

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
Activity 6: *Lesson Conclusion*			**Task 6.1:** Teacher asks students to go to My Learning journal and add their team's questionnaire (link or embed code) in the tab "Evidence". Next, teacher asks students to go to Drive and fill in their own self-evaluation grid. Then, teacher asks them to go to My Learning journal and add the link of their self-evaluation grid in Drive in the tab "Self-evaluation".	- Informs students about the entry in My Learning journal and their self-evaluation of their ability to collaborate and communicate.	- Mahara - My Learning journal - Self-evaluation questionnaire in Drive	-	- Students develop the skill to assess their ability to collaborate and communicate efficiently.	Self-evaluation of communica-tion and collabora-tion skills (see learning design appendix)
LESSON 2 Activity 1: *Europe's climate*	**Subject area goals** To be taught the basic geographic features (position, boarders, mountain ranges, seas, rivers). Learn the natural and climatic characteristics of Europe.	**Collaboration & Communication** - Students communicate information and ideas effectively to multiple audiences using a variety of media and formats.	**Task 1.1:** Teacher asks students to watch a video in Mahara titled "Europe's climate", and after they have studied Europe's geomorphological map: **http://e-geografia.eduportal.gr/maps/map_europe_1/map_europe1.html**, to post on the forum their conclusions regarding their observations related to Europe's landform.	- Prepares the lesson (instructions, presentations, video, geomorphological map) in Mahara. - Informs students about the task they have to do. - Guides the students. - Facilitates the discussion.	- Mahara - Introductory Video - Europe's geomorphological map **http://e-geografia.eduportal.gr/maps/map_europe_1/map_europe1.html** - Forum (discussion)	- Individual work - Group discussion	- Write on the forum observations about the continent's landform.	
Activity 2: *In pairs!*	**Subject area goals** To be taught the basic geographic features	**Collaboration & Communication** - Students interact, collaborate, and publish with peers, experts, or others	**Task 2.1:** Teacher asks students to read carefully pages 95, 96 and 97 from their Student's book. After they have read them, teacher asks students to work in	- Informs students about the task they have to do. - Guides students.	- Mahara - Student's Book - Digital tool for creating games	Group work (collaboration in pairs)	- Creation of «Climate Game – Europe»	Peer evaluation (students establish their own criteria

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
	(position, boarders, mountain ranges, seas, rivers). Learn the natural and climatic characteristics of Europe.	employing a variety of tools and environments. - Students contribute to project teams to produce original works or solve problems. **Creativity & Innovation** - Students innovating and creatively using tools and resources. - Students create original works as a means of expression.	pairs and create an image quiz with questions at **http://www.purposegames.com/,** using a geomorphological map of Europe, e.g. **https://drive.google.com/file/d/0B0v83a5JoZBPMVRxc1o0d05CSEE/view?usp=sharing.** More specifically, teacher asks students to add 10 questions to their game which will be relevant with the content of the pages, i.e. in relation with the climate in different areas of Europe. **Task 2.2:** Next, teacher asks students to share their game on the **forum** and play with the games their peers have created. **Task 2.3:** After students have established evaluation criteria (posted on the forum), teacher asks them to give feedback to their peers for any necessary changes /improvements. Finally, after students have done the necessary changes to their game, teacher asks them to upload it on the blog **http://europelympiaclass5.blogspot.com.cy/** for their unit on the corresponding page, **"Climate Games – Europe".**	- Facilitates the procedure, whenever is necessary. -	**http://www.purposegames.com/** - Geomorphological maps **https://drive.google.com/file/d/0B0v83a5JoZBPMVRxc1o0d05CSEE/view?usp=sharing.** - Forum (peer assessment) - Blog **http://europelympiaclass5.blogspot.com.cy/**		- Sharing the game on the forum. - Write on the forum evaluation criteria for the game (peer evaluation / peer feedback). - Peer evaluation / peer feedback. - Upload game (after any necessary changes / improvements) on the blog **http://europelympiaclass5.blogspot.com.cy/**	regarding the evaluation of the game they have created). Peer feedback.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
Activity 3: Evidence			**Task 3.1:** Teacher asks students to go to My Learning journal and add the link to their game in the tab "Evidence". Next, teacher asks students to go in Drive and fill in their own self-evaluation grid. Then, teacher asks students to go to My Learning journal and add the link of their self-evaluation grid in Drive in the tab "Self-evaluation".	- Informs students about the entry in My Learning journal. - Informs about the completion of their self-evaluation regarding their ability to collaborate and communicate, and their ability to create and innovate.	- Mahara - My Learning journal - Self-evaluation questionnaire in Drive	-	Students develop the ability to assess their skills to collaborate and communicate efficiently, and create original works, using tools and sources.	Self-evaluation of collaboration and communication skills. Self-evaluation of creativity and innovation skills
LESSON 3 Activity 1: *Lesson Introduction*			**Task 1.1:** Teacher asks students to go to My Learning journal and fill in the tab "Prior knowledge" what they already know about weather forecasts, why they are useful, what kind of information they provide, where we can find or watch them, etc. Next, teacher asks students to fill in the tab "Setting goals" what they don't know and would like to learn about news programmes.	- Prepares the lesson (instructions, presentations) in Mahara. - Guides students to complete My Learning journal.	- Mahara - My Learning journal -	- Individual work	- Students complete the first two tabs in My Learning journal.	
Activity 2: *Extreme weather in Europe…*	**Subject area goals** Students learn the natural and climatic characteristics of Europe.		**Task 2.1:** Teacher asks students to watch a video in Mahara titled **"Extreme Weather in Europe"** and discuss in class about Europe's weather.	- Informs students about the task they have to do. - Facilitates the discussion.	- Mahara - Video – **"Extreme Weather in Europe"**	- Group discussion	Develop verbally their opinions and thoughts about the weather and climatic conditions in Europe.	

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
Activity 3: *Group Action!*	**Subject area goals** Students learn the natural and climatic characteristics of Europe.	**Information Literacy** - Students plan strategies to guide inquiry. - Students evaluate and select information sources and tools based on the appropriateness to specific tasks. - Students locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. - Students process information and construct new knowledge. **Collaboration & Communication** - Students interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments. - Students communicate information and ideas effectively to multiple audiences	**Task 3.1:** Teacher tells students that they will become weather forecasters! More specifically, teacher tells students that after they have been separated in teams, each team will be responsible for a different part of Europe (Eastern, Western, North, South) and will create a weather forecast according to the information they will find on the weather. Group A: **Eastern Europe** Group B: **Western Europe** Group C: **North Europe** Group D: **South Europe** In particular, teacher instructs that each team will initially have to find information about the following: (a) Information about last week's temperature, sunshine and rainfall. (b) Other information about the weather, e.g. humidity, wind speed. (c) Compare temperatures according to the area's climate (connection with previous tasks). And then, students will present to teacher, who will take on the role of the news director, their team's goal, their ideas and plan of action (i.e. what they will do to achieve their goal, which means they will use to find the information and	- Informs students about the task they have to do. - Guides students. - Facilitates the procedure, whenever is necessary. - Takes on the role of a news director.	- Mahara - Folder for each team on Google Drive Group A: **Eastern Europe** Group B: **Western Europe** Group C: **North Europe** Group D: **South Europe** - Internet - **VOKI** Programme - Forum for the presentation of a weather forecaster. - Blog **http://europelympiaclass5.blogspot.com.cy/** on **"Weatherforecasters-weather forecasts-VokI".**	Group work (collaboration)	Each team identifies the required information for the climatic context of the area they will have. Group A: **Eastern Europe** Group B: **Western Europe** Group C: **North Europe** Group D: **South Europe** - Each team prepares their verbal forecast in the team's folder on Google Drive. - Create a weather forecaster avatar on **VOKI.**	Peer evaluation (students assess the content of the weather forecast they have created).

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
		using a variety of media and formats. - Students contribute to project teams to produce original works or solve problems. **Creativity & Innovation** - Students innovating and creatively using tools and resources. - Students create original works as a means of expression.	which means they will use to write their forecast, which role will each member have, etc.) Teacher will give them the required feedback as well as any necessary help towards the sources and materials. Students have to upload the information and their verbal forecast in the team's folder on Google Drive. **Task 3.2:** After the completion of their verbal forecast, teacher instructs that they have to switch to **VOKI** and create a weather forecaster avatar, which they have to share on the forum so that they can receive any necessary feedback from their peers. Finally, teacher says that after any necessary changes that will be done based on the feedback they will received, they have to post the weather forecast they have prepared on the blog **"Weatherforecasters-weather forecasts- Vokl".**				- Share on the forum, but also on the blog **"Weatherforecasters-weather forecasts-Vokl"**, the weather forecaster they have made.	
Activity 4: *Teacher Assessment*			**Task 4.1:** Teacher tells students that she will proceed to the assessment of their activity regarding the content of the forecast, the vocabulary, the syntax, the spelling, the creativity, the digital skills and the effective collaboration. The assessment will	- Informs students about the assessment procedure.	- Mahara - Assessment on **Google Sheets** - Class' Google Drive		Inform students about their performance on the subject and the development	Class teacher assessment on level of knowledge and skills level. (see appendix)

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
			be available in the class' personal Google Drive and they can share it in their evidence.				of transversal skills.	
LESSON 4 *Activity 1: Lesson Introduction*	**Subject area goals** Students learn the basic parameters of industrial development.		**Task 1.1:** Teacher asks students to observe in Mahara the map **Map of Europe's industrial areas** and report five countries where some of Europe's best industrial areas are located. Next, teacher asks students to observe on the same map areas in Europe where there are coal mines and report if they can find any relation between the coal mines and the industries in the same area. **Task 1.2:** Teacher asks students to go to My Learning journal and fill in the tab "Prior knowledge" what they already know about the two specific questions, i.e. to mention: 1. Five European countries where the best industrial areas of Europe are located today. **2.** If they can spot any relation between the coal mines and the industries in the same area, in Europe.	-Prepares the lesson (instructions, presentations) in Mahara. -Facilitates the discussion. -Guides students to complete My Learning journal.	-Mahara -**Map of Europe's industrial areas** -My Learning journal	-Group discussion -Individual work	-Students develop personal opinions and thoughts about Europe's industrial development. -Students complete the first two tabs in My Learning journal.	
Activity 2: *Internet Debate*	**Subject area goals** Students learn the basic	**Collaboration & Communication** - Students interact, collaborate, and	**Task 2.1:** Teacher asks students to write in their notebook three reasons in favour of an industrial installation	- Informs students about the task they have to do.	- Mahara - Students' personal notebooks	- Group work (collaboration)	Students interact, collaborate and share	Google Apps Self-assessment

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
	parameters of industrial development.	publish with peers, experts, or others employing a variety of tools and environments. - Students communicate information and ideas effectively to multiple audiences using a variety of media and formats. **Information Literacy** - Students plan strategies to guide inquiry. - Students evaluate and select information sources and tools based on the appropriateness to specific tasks. - Students locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. - Students process information and construct new knowledge.	in their area and three reasons against it so that they can prepare for an Internet debate on the **forum**. Teacher informs students that for their preparation they can consult the Internet and find various sources. **Task 2.2:** Then, teacher asks students to split into two teams. Teacher informs students that they will participate in an Internet debate on the forum, in which they have to collate their arguments in favour or against an industrial installation in their area, i.e. Lympia. Teacher specifies that one team will be in favour of the industrial installation in their area and the other team will be against the industrial installation in their area. Finally, teacher stresses that during the debate students can mention the links of the pages they have used to support their arguments (e.g. a page about industrial emissions). **Task 2.3:** After the completion of the Internet debate, teacher informs students that based on some criteria, such as: -The collaboration of my team was effective,	- Facilitates the discussion and the procedure.	- Forum (**forum**) (discussion) -	- Individual work (self-evaluation)	efficiently with peers, via the forum, opinions in favour of the industrial installation in their area.	tools for the debate.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
			-We were clear and have presented our arguments properly, -Our arguments were well-documented (e.g. supported from websites, sources, etc.), -We respectfully stated our opinion, they have to vote which team they think did better. **Task 2.4:** Teacher asks students, in their free time, to go to My Learning journal and add in the tab "Evidence" the file from Google Drive. Next, teacher tells students that they have to go to Drive and complete their self-evaluation grid. Finally, teacher asks them to go to My Learning journal and in the tab "Self-evaluation" attach the link of their self-evaluation grid in Drive.					
Activity 3: *Europe's development*	**Subject area goals** Students learn the basic parameters of Europe's social and cultural development.	**Collaboration & Communication** - Students interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments. - Students communicate information and ideas effectively to	**Task 3.1:** Teacher tells students that after they have studied pages 98-99 from their Student's book and have watched the presentation on "Colonialism in Europe", to find reasons that have contributed in Europe's development and in pairs create a short presentation of 4 slides on Google Slides. **Task 3.2:** Next, teacher informs students that they have to send their	- Informs students about the task they have to do. - Guides students. - Facilitates the procedure, whenever is necessary.	- Mahara - Presentation – Colonialism in Europe - Google Slides - E-mail	- Individual work - Group work (collaboration)	Each team to find the required information that contribute to Europe's development. - Each team to prepare 4 slides regarding	- Teacher's feedback

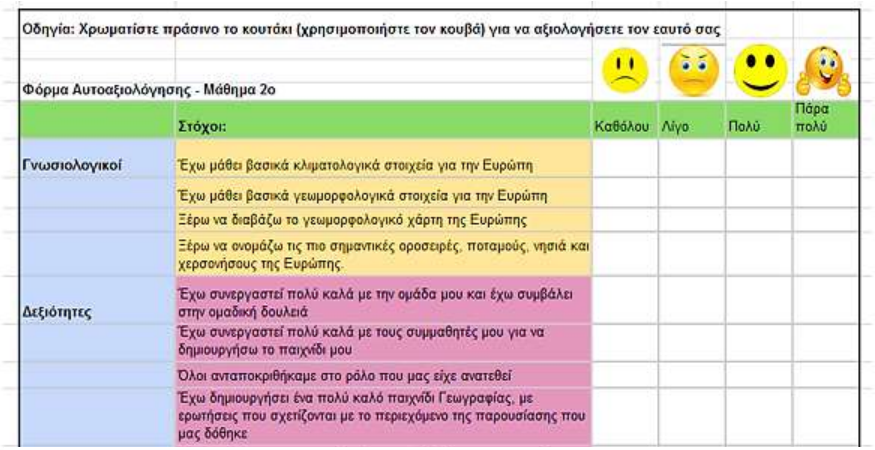
Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
		multiple audiences using a variety of media and formats. - Students contribute to project teams to produce original works or solve problems. **Creativity & Innovation** - Students innovating and creatively using tools and resources. - Students create original works as a means of expression.	project via e-mail to the teacher for feedback. Teacher mentions that she will be the e-mail's main recipient (to). However, teacher informs that they have to send a copy of the e-mail (cc) to the trainer and another copy to another recipient, whose address must not be visible (bcc). **Task 3.2:** Teacher informs students that after she has sent them the feedback and they have made the necessary changes, they have to share their presentation on the **blog** of their unit: **http://europelympiaclass5.blogspot.com.cy/.** Then, teacher tells students that they have to go to My Learning journal to add in the tab "Evidence" the link to their presentation.				Europe's development.	
LESSON 5 Activity 1: *My ePortfolio*		**Emerging skills Autonomous Learning** - Students evaluate the process and the results, and they provide evidence for their accomplishments.	**Task 1.1:** Teacher asks students to create their ePortfolios. More specifically, teacher asks students to create some tabs in their **ePortfolio**: - ***Profile***: present themselves (i.e. name, surname, photo, interests). - ***"My Learning" Journal:*** check if their journal is up to date and	- Prepares the lesson (instructions) in **Mahara**. - Guides students to create their "**ePortfolio**" for Introduction to Europe.	- **Mahara** - **"ePortfolio** - **Introduction to Europe"**	- Individual work	-Students evaluate the process and the results of the lessons, and they provide evidence for their accomplishments.	Final _ ePortfolio Assessment Scaffolding Tool for teacher Final _ Skills Assessment Scaffolding

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
			that it appears in the **ePortfolio** (if not, press edit in the **ePortfolio,** and from "**General**" add "**Learning Entry**"). - ***Experience:*** describe their experience (How did I work?, What do I think I learned?, What could I have done better?, What would I change?, Which of my assignments did I like more and why?). - ***1st lesson***- description (work and citation - link and picture). - ***2nd lesson***- description (work and citation – link and picture). - ***3rd lesson***- description (work and citation – link and picture). - ***4th lesson***- description (work and citation – link and picture). - ***Evaluation of Transversal Skills:*** Skills that I have developed in this unit (see your self-evaluations and complete skills but also cite the links). **Task 1.2:** Teacher asks students to share their ePortfolio with her once they have completed it.				Exemplar e-Portfolio	Tool for teacher

IV. Material, resources and students' artefacts

Formative assessment scaffolding tool - Lesson 2:

It is suggested that the tool is available through the online learning environment they are using (Mahara, Office356) in its electronic version. **Self-evaluation of collaboration and communication skills / Self-evaluation of creativity and**



Οδηγία: Χρωματίστε πράσινο το κουτάκι (χρησιμοποιήστε τον κουβά) για να αξιολογήσετε τον εαυτό σας

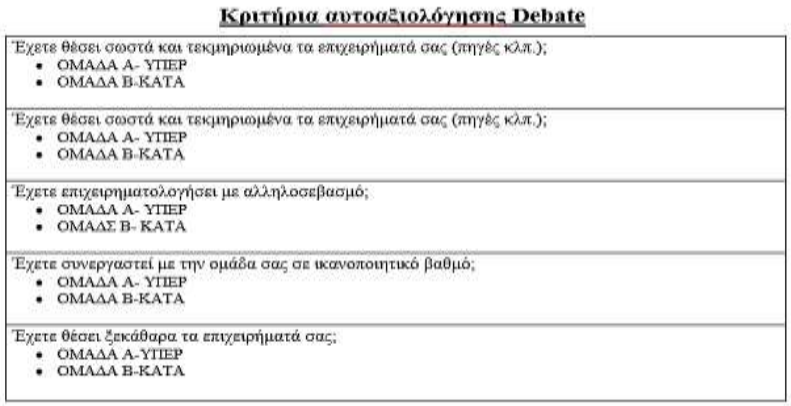
Φόρμα Αυτοαξιολόγησης - Μάθημα 2ο

	Στόχοι:	Καθόλου	Λίγο	Πολύ	Πάρα πολύ
Γνωσιολογικοί	Έχω μάθει βασικά κλιματολογικά στοιχεία για την Ευρώπη				
	Έχω μάθει βασικά γεωμορφολογικά στοιχεία για την Ευρώπη				
	Ξέρω να διαβάζω το γεωμορφολογικό χάρτη της Ευρώπης				
	Ξέρω να ονομάζω τις πιο σημαντικές οροσειρές, ποταμούς, νησιά και χερσονήσους της Ευρώπης.				
Δεξιότητες	Έχω συνεργαστεί πολύ καλά με την ομάδα μου και έχω συμβάλει στην ομαδική δουλειά				
	Έχω συνεργαστεί πολύ καλά με τους συμμαθητές μου για να δημιουργήσω το παιχνίδι μου				
	Όλοι ανταποκριθήκαμε στο ρόλο που μας είχε ανατεθεί				
	Έχω δημιουργήσει ένα πολύ καλό παιχνίδι Γεωγραφίας, με ερωτήσεις που σχετίζονται με το περιεχόμενο της παρουσίασης που μας δόθηκε				

Formative assessment scaffolding tool - Lesson 4:

It is suggested that the tool is available through the online learning environment they are using (Mahara, Office356) in its electronic version.

Google Apps - Self-assessment tools for the debate.

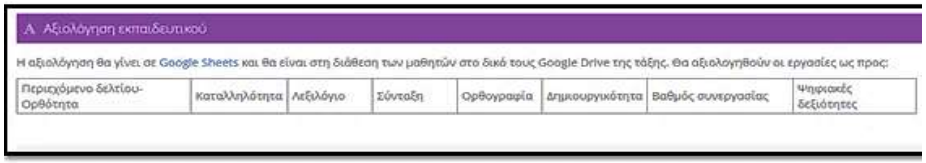


Κριτήρια αυτοαξιολόγησης Debate

Έχετε θέσει σωστά και τεκμηριωμένα τα επιχειρήματά σας (πηγές κλπ.); • ΟΜΑΔΑ Α- ΥΠΕΡ • ΟΜΑΔΑ Β-ΚΑΤΑ
Έχετε θέσει σωστά και τεκμηριωμένα τα επιχειρήματά σας (πηγές κλπ.); • ΟΜΑΔΑ Α- ΥΠΕΡ • ΟΜΑΔΑ Β-ΚΑΤΑ
Έχετε επιχειρηματολογήσει με αλληλοσεβασμό; • ΟΜΑΔΑ Α- ΥΠΕΡ • ΟΜΑΔΣ Β- ΚΑΤΑ
Έχετε συνεργαστεί με την ομάδα σας σε ικανοποιητικό βαθμό; • ΟΜΑΔΑ Α- ΥΠΕΡ • ΟΜΑΔΑ Β-ΚΑΤΑ
Έχετε θέσει ξεκάθαρα τα επιχειρήματά σας; • ΟΜΑΔΑ Α-ΥΠΕΡ • ΟΜΑΔΑ Β-ΚΑΤΑ

Formative assessment scaffolding tool - Lesson 3:

Class teacher assessment on level of knowledge and skills level innovation skills.



Α Αξιολόγηση εκπαιδευτικού

Η αξιολόγηση θα γίνει σε Google Sheets και θα είναι στη διάθεση των μαθητών στο δικό τους Google Drive της τάξης. Θα αξιολογηθούν οι εργασίες ως προς:

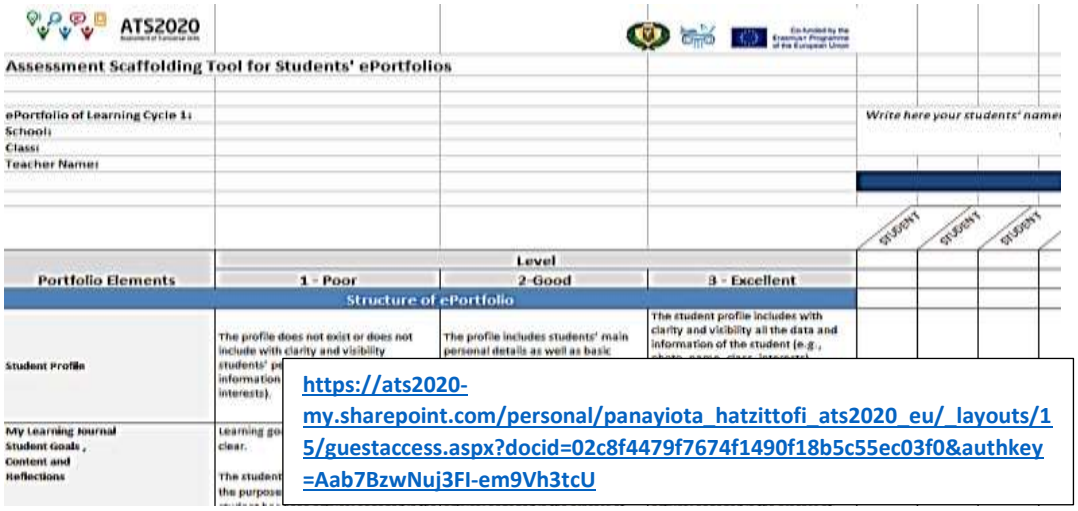
Περιεχόμενο δελτίου-Ορθότητα	Καταλληλότητα	Λεξιλόγιο	Σύνταξη	Ορθογραφία	Δημιουργικότητα	Βαθμός συνεργασίας	Ψηφιακές δεξιότητες

- *Sheet content – correctness*
- *Appropriateness*
- *Vocabulary*
- *Syntax*
- *Spelling*
- *Creativity*
- *Collaboration grade*
- *Digital skills*

Formative assessment scaffolding tool - Lesson 5:

It is suggested that the tool is available through the online learning environment they are using (Mahara, Office356) in its electronic version.

Assessment Scaffolding Tool for Students' ePortfolios



ATS2020

Assessment Scaffolding Tool for Students' ePortfolios

ePortfolio of Learning Cycle 1:
School:
Class:
Teacher Name:

Write here your students' name

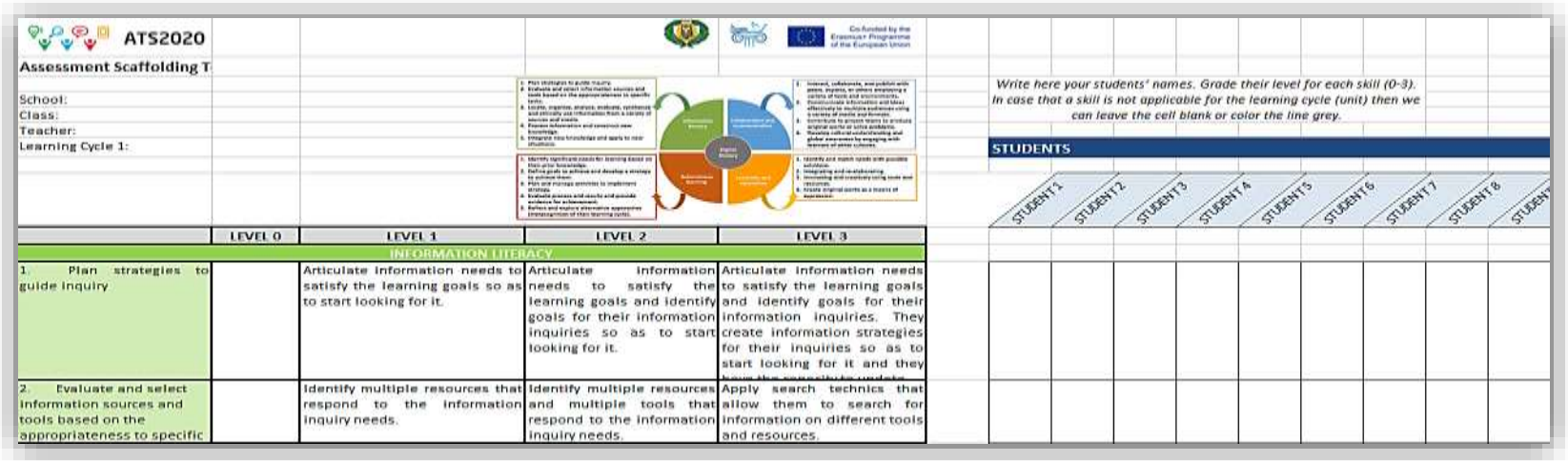
Portfolio Elements	Level 1 - Poor	2-Good	3 - Excellent
Structure of ePortfolio			
Student Profile	The profile does not exist or does not include with clarity and visibility students' pe... information... interests).	The profile includes students' main personal details as well as basic	The student profile includes with clarity and visibility all the data and information of the student (e.g.,
My Learning Journal Student Goals, Content and Reflections	Learning go... clear. The student... the purpose...		

https://ats2020-my.sharepoint.com/personal/panayiota_hatzittofi_ats2020_eu/_layouts/15/guestaccess.aspx?docid=02c8f4479f7674f1490f18b5c55ec03f0&authkey=Aab7BzwNuj3FI-em9Vh3tcU

Assessment scaffolding tool - Lesson 5:

It is suggested that the tool is available through the online learning environment they are using (Mahara, Office356) in its electronic version.

Assessment Scaffolding Tool of Students' Competences and Skills for Teachers



ATS2020

Assessment Scaffolding T

School:
Class:
Teacher:
Learning Cycle 1:

Write here your students' names. Grade their level for each skill (0-3). In case that a skill is not applicable for the learning cycle (unit) then we can leave the cell blank or color the line grey.

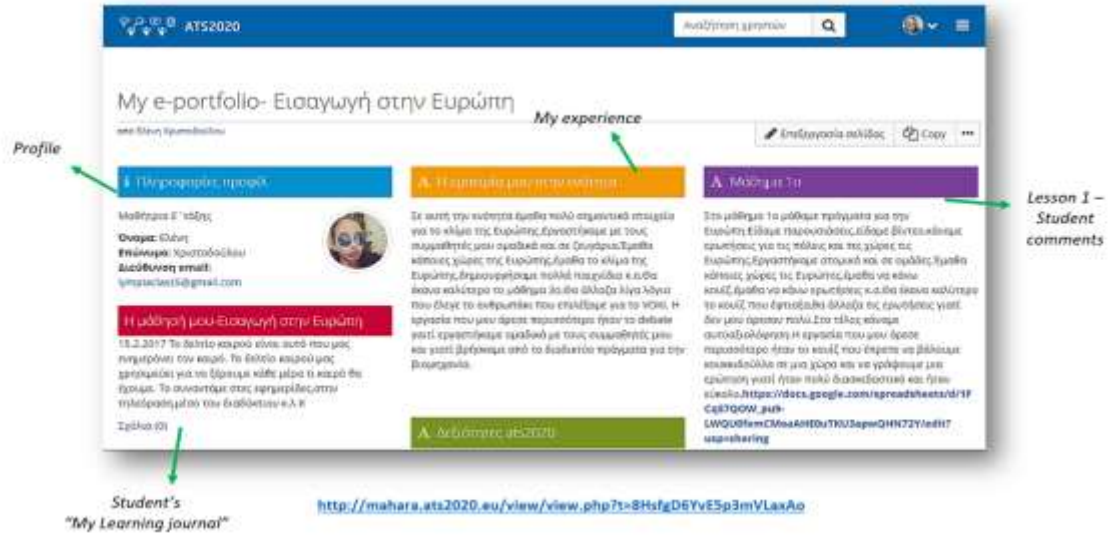
STUDENTS

STUDENT 1 | STUDENT 2 | STUDENT 3 | STUDENT 4 | STUDENT 5 | STUDENT 6 | STUDENT 7 | STUDENT 8 | STUDEN

	LEVEL 0	LEVEL 1	LEVEL 2	LEVEL 3
INFORMATION LITERACY				
1. Plan strategies to guide inquiry		Articulate information needs to satisfy the learning goals so as to start looking for it.	Articulate information needs to satisfy the learning goals and identify goals for their information inquiries so as to start looking for it.	Articulate information needs to satisfy the learning goals and identify goals for their information inquiries. They create information strategies for their inquiries so as to start looking for it and they
2. Evaluate and select information sources and tools based on the appropriateness to specific		Identify multiple resources that respond to the information inquiry needs.	Identify multiple resources and multiple tools that respond to the information inquiry needs.	Apply search technics that allow them to search for information on different tools and resources.

https://ats2020-my.sharepoint.com/personal/panayiota_hatzittofi_ats2020_eu/_layouts/15/guestaccess.aspx?docid=04fd5116405764518a6a58a16fda4983b&authkey=Acj2QSZqSGKqcrwVq5_S128

Exemplar ePortfolio - Lesson 5:



CYPRUS

Modern Greek: We are all equal, we are all different

Source https://www.youtube.com/watch?v=QjtCmHoJPwk

I. GENERAL DESCRIPTION

Country	Cyprus
Author/Editor	Christos Rarras
School	Engomi Gymnasium- Kyriakos Neocleous
Subject	**MODERN GREEK**
LD Title	**We are all equal, we are all different**
Year group	3rd grade of Secondary Education (14-15 years old)
Duration	6 periods
Short description	The present learning design focuses on the investigation of the characteristics of Racist Speech. By examining a variety of informational sources corresponding to different text types (e.g. advertisement, anecdotes, journalistic texts), students explore how the racist ideology is disseminated through speech. By utilizing scientific arguments students deconstruct the underlying perceptions of language figures, and break down the lame foundations of racist ideology. In the end, they state their personal opinion by writing up an argumentative text.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/all-equal-all-different
Learning design in Greek	https://resources.ats2020.eu/resource-details/LEDE/oloi_isoi_oloi_diaforetikoi

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet
- Office 365 OneNote
- http://www.greek-language.gr/greekLang/index.html
- Blog

Learning goals - expected leaning outcomes
Body of knowledge (National curriculum)

- Become sensitized, problematize, and express their position by providing arguments on one of the most critical issues of contemporary societies: Equality and respect for diversity
- To try to define a concept and thereafter through an inductive process to understand the way in which we define concepts
- To get to know the potential and use of electronic tools (Dictionaries, text bodies) so that they can improve their digital and Information Literacy competences and become

Tasks to develop these competences towards the learning outcomes

- Students investigate in what ways the racist ideology uses speech in order to be disseminated. More specifically, students collaborate in order to discover new vocabulary, which figures of speech (metaphors, similis, analogues etc.) are used to promote the racist ideology
- Students utilize the arguments offered by Science (Biology, Sociology, Genetics) to prove the lame foundation of Racist Speech, so that they can break it down.
- Students publicize their findings in a blog that they will create, in order to contribute as active citizens to the combat of racism
- Students complete assessment sheets
- Students create their ePortfolios for the unit

Leaning outputs – through all stages (assessment)

- Racism diagram completed (forms of racism)
- Definitions of concepts relating to racism
- Criteria for recognizing Racist Speech
- Racist Speech: Vocabulary, figures of speech, style
- References to the origins of the sources they have gathered for issue under study
- Evaluation of the material: criteria of suitability and credibility
- Argumentative essay for breaking down Racist Speech
- Learning diaries My Learning Journal
- Completed formative assessment sheets
- Blogs
- ePortfolios

Skills and competences necessary to reach the expected outcomes

Targeted
Information Literacy
- Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media.
- Process information and construct new knowledge.
- Integrate new knowledge and apply to new situations.

Collaboration and Communication
- Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments.

Emerging
Creativity and Innovation
- Integrate and re-elaborate.

Collaboration and Communication
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- Develop cultural understanding and global awareness by engaging with learners of other cultures

Autonomous Learning
- Autonomous Learning Skills

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	**Transversal Skills**						
Activity 1 Screening of a video animation about racism and its various forms. **Activity 2** Work with electronic dictionary and body texts in the Portal for the Greek Language http://www.greek-language.gr/greekLang/modern_greek/tools/corpora/index.html	– Students problematize about different types of behaviour which, while they may seem natural and accepted, they may actually be problematic. – Students try to define racism, and to understand how we define a concept and how we break it down into different components (forms of racism) –*See Modern Greek Language 3rd Grade, Unit 6, p. 116*	Collaboration and Communication Develop cultural understanding and global awareness by engaging with learners of other cultures. Information Literacy Evaluate and select information sources and tools based on the appropriateness to specific tasks. Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media	– Students comment on the behaviour of the main character of the video that is presented, they define it, and additionally they try to define the forms in which it is manifested. – Students define with the help of the electronic dictionary two other significant terms which are included in 3rd unit http://ebooks.edu.gr/modules/ebook/show.php/DSGYM-C107/675/4493,20226/ of Greek Language text book: "Prejudice" and "Stereotypes". They also explore the terms, which are provided in p.56 of their textbook, so that they get to familiarize with as many terms as possible See Appendices	-The teacher introduces students to the issue of Racism beginning from the actual term. He/She, then, refers to different forms of racism. -The teacher refers students to the organizer of the 3rd unit of the textbook where the terms "Stereotypes" and "Prejudice" are included. He/She asks them to relate these terms to the concept of Racism. -He/She also refers students to p. 56 of the textbook, to C2 Part Vocabulary, where more terms pertaining to Racism are included. He/She asks students to research these terms in the Text Corpora of the Portal for the Greek Language See Appendices and describe the contexts in which these terms are used.	– Video (See Appendices) – Electronic Dictionary in the Portal for Greek Language www.greek-language – Text corpora in the Portal for Greek Language www.greek-language.gr – Diagram Forms of Racism. – See *Materials-Resources-Tools*, 5 in Appendices	Video Screening in the plenary Students work in pairs to define Racism Students work in pairs for providing a definition on Racism Research different forms of racism on the internet (individual work)	– Racism: Definition – Forms of Racism – "Prejudice", "Stereotypes": Provide definition and examples for these terms as well as for the terms that are mentioned in page 56 of the student's textbook, part C2.	Fill in the diagram- different forms of racism. Fill in the table with the terms that need to be defined Context of the terms: Word document in which different quotations are included

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal Skills						
Activity 3 Completion of the My Learning Journal (Points 1-3) for the topic of the Learning Cycle "Racist speech and counterarguments: How is racist ideology conveyed in speech and how can it be opposed?"		Autonomous Learning Identify significant needs for learning based on their prior knowledge. Define goals to achieve and develop a strategy to achieve them. Plan and manage activities to implement strategy.	– Students complete fields 1-3 of the *My Learning Journal*. Available at: https://resources.ats2020.eu/resource-details/ADM/learning_journal_en	The teacher announces the topic of the assignment "Racist speech and counterarguments: How is racist ideology conveyed in speech and how can it be opposed? At the same time, he/she asks students to complete the *My Learning Journal* (Fields 1-3).	*My Learning Journal.* Available at: https://resources.ats2020.eu/resource-details/ADM/learning_journal_en	– Individual work	Completion of the first 3 fields of the *My Learning Journal*	*My Learning Journal.* Available at: https://resources.ats2020.eu/resource-details/ADM/learning_journal_en
Activity 4 Discuss and write down the main characteristics of Racist Speech.	Students make assumptions regarding the main characteristics of Racist Speech, and they propose criteria referring to the vocabulary, the style, as well as the thematic of Racist Speech	Autonomous Learning Identify significant needs for learning based on their prior knowledge. Define goals to achieve and develop a strategy to achieve them.	– Students discuss based on potential prior knowledge about the characteristics of racist speech	– The teacher oversees the work of students but he/she does not intervene. He/She allows students to put forward their own assumptions.	– Internet – Text book	– Group work – Discussion in the 4-member student groups	Characteristics of Racist Speech Criteria of categorization	Worksheet: Criteria of Racist Speech. See Appendices in *Materials-Resources-Tools*

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal Skills						
Activity 5: Students research materials to verify/ test the assumptions that they put forward.	Students provide evidence that they have been sensitized in relation to all aspects of racism.	Information Literacy – Evaluate and select information sources and tools based on the appropriateness to specific tasks. – Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. – Process information and construct new knowledge. – Effective use of search engine machine	Students research examples of Racist Speech, as well as the communicative situations in which it occurs. They start from the textbook (text 5, p.53). Available at http://archeia.moec.gov.cy/sm/310/c_gym_neolliniki_glossa_vilio_mathiti.pdf/	The teacher supervises students' work, and provides help when needed (searching informational sources, communicative situations etc.)	– Internet – School textbook	Work on the computers	A variety of materials containing Racist Speech, political speeches, jokes, comics, advertisements	Formative assessment tool for the unit. See 9 in Materials-Resources-Tools in Appendices
Activity 6 Students study the material and try to extract the main characteristics of Racist Speech – they evaluate its potential impact on viewers and listeners.	– Students study the material and extract the main elements based on certain characteristics – Assessment of the effectiveness of certain choices	- Information Literacy Process information and construct new knowledge.	Students analyse the materials that they have gathered, extract the main characteristics of Racist Speech, and evaluate their impact.	The teacher assists students in analysing the material and drawing their conclusions.	Audio-visual material and written texts from the Internet.	Students work in groups; they discuss, and work out solutions	A written text containing the main characteristics of Racist Speech	A questionnaire for the assessment of group work See Appendices *Materials-Resources-Tools*, (point 8)

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal Skills						
Activity 7 Completion of the *My Learning Journal* (field 4-Evidence).		Autonomous Learning Evaluate process and results and provide evidence for achievement.	– Students provide the evidence of their learning		*My Learning Journal* (*Materials-Resources-Tools*,6) in Appendices	Individual work	– A variety of materials – (Written texts, audios, images, advertisements etc.)	*My Learning Journal* (field 4)
Activity 8 Students prepare the counterargument to the materials that they have collected, taking a stance against racism.	Students write an argumentative text with which they break down the argumentation of racism.	Creativity and Innovation Integrate and re-elaborate.	Students collect material from various sources; they prepare their argumentation (biology, religion, literature, history)	The teacher provides guidance when needed	Internet	Individual work	Argumentative text	Tool: Structure of the argumentative text. See *Materials-Resources- Tools*, 10 in Appendices, 10
Activity 9 Students create blogs to which they upload their material.		Interaction and Communication with other students, teachers or people with the same interests in the electronic environment	Students follow instructions in order to create their blogs, and upload their material.	The teacher supports students in creating blogs	Internet	Group work	Blog	Evaluate attractiveness and effectiveness of the blog (how many likes did the blog receive?)
Activity 10 Putting together an ePortfolio	Presentation of students' work in ePortfolios.		Students develop their ePortfolios for the Learning Cycle.	– The teacher acts as a facilitator. He/She refers students to supportive materials (See *Materials-Resources- Tools* Materials, 11 in Appendices – He/She assesses students' ePortfolios	-Office365 OneNote -Tool Instructions for the development of ePortfolio -See Material Resources-Tools, 11 in Appendices	Individual work in OneNote	Students' ePortfolios	Assessment Scaffolding Tool for Students' ePortfolios Available at: https://resources.ats2020.eu/resource-details/SCTS/assessmentTooolePortfolio

IV. Material, resources and students' artefacts

	ACTIVITY	MATERIALS-RESOURCES- TOOLS
1	Introduction to the issues of Racism and Diversity	• Screening of an animation in which the issue of Racism is raised titled *The glasses of Diversity* https://www.youtube.com/watch?v=IaW8e9uNDsM
2	Understanding of the definition of a concept	• Modern Greek textbook 3rd Grade Secondary School, p. 56 Available at: http://archeia.moec.gov.cy/sm/310/c_gym_neolliniki_glossa_vilio_mathiti.pdf • Text Corpora http://www.greek-language.gr/greekLang/modern_greek/tools/corpora/index.html • Forms of Racism Diagram. Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under the unit *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί*
3	Investigation of concepts about equality and diversity	• Modern Greek textbook 3rd Grade Secondary School, p. 56 Available at: http://archeia.moec.gov.cy/sm/310/c_gym_neolliniki_glossa_vilio_mathiti.pdf
4	Researching dictionary entries to define related concepts	• Text Corpora http://www.greek-language.gr/greekLang/modern_greek/tools/corpora/index.html • Dictionary of standard Modern Greek • http://www.greek-language.gr/greekLang/modern_greek/tools/lexica/triantafyllides/index.html
5	Discussion about the main characteristic of Racist Speech	• Worksheet: Criteria for detecting Racist Speech Available at: https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under the unit *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί* • Forms of Racism Diagram. Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under the unit *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί*
6	Monitoring of the Learning Process	• *My Learning Journal* for this particular unit. Tool available at https://resources.ats2020.eu/resource-details/ADM/learning_journal_en
7	Text to be used as a starting point for researching informational sources on the internet	• Modern Greek textbook 3rd Grade Secondary School, text 5, p.53 Available at: http://archeia.moec.gov.cy/sm/310/c_gym_neolliniki_glossa_vilio_mathiti.pdf\
8	Formative Assessment tool for Collaboration and Communication skills	• Formative Assessment tool for Collaboration and Communication skills Available at: https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under the unit *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί*

9	Formative Assessment tool for the Information Literacy skills	• Formative Assessment tool for the Information Literacy skills Available at: https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under the unit *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί*
10	Assessment tool for teacher	• Structure of an argumentative text. Available at: https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under the unit *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί*
11	Instructions for the creation of an ePortfolio	• Instructions for the creation of an ePortfolio Available at: https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *We are all equal, we are all different*

Formative Assessment Tool 1

Formative Assessment tool for Collaboration and Communication skills Available at: https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under the unit *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί*

Formative Assessment Tool 2

Formative Assessment tool for the Information Literacy skills. Available at: https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Είμαστε όλοι ίσοι- Είμαστε όλοι διαφορετικοί*

Formative Assessment Tool 3

Assessment Scaffolding Tool for students' ePortfolios
https://resources.ats2020.eu/resource-details/SCTS/assessmentToolePortfolio

A student's ePortfolio

https://ats2020-my.sharepoint.com/personal/christos_rarras_ats2020_eu/_layouts/15/WopiFrame.aspx?folderid=12a1b65d00a4842a496ec29a8018bb33a&authkey=AbAqwAtHtbeuwQSrVw20swI&action=view

CYPRUS

Greek Language: Mysteries – Science Fiction – "Time Machine"

I. GENERAL DESCRIPTION

Country	Cyprus
Author/Editor	Raouna Maria / Hadjittofi Panayiota
School	Lympia Primary School
Subject	**GREEK LANGUAGE**
LD Title	**Unit 10: Mysteries – Science Fiction – "Time Machine"**
Year group	Primary Education, Fifth Grade
Duration	4x80'
Short description	A journey in time has begun! This unit aims to let students travel in time with their fictional "Time Machine". The main objective of the unit is for students, via an imaginary adventure, to develop the ability to communicate effectively (spoken and written), understand and produce descriptive texts, and use future and hypothetical sentences. More specifically, within this unit the students will have the opportunity to describe their own fictional time machine based on the material they will be given and the sources/images they will find themselves; to describe the changes that need to be made during the transition from one period to another (e.g. clothes, speech); to investigate the preferences of the school's students regarding the period they would like to travel to; to describe a "Time travel" adventure which will culminate in France, which they have learnt through Geography lessons (criteria for the era, utilisation of the time machine's description, etc.).
Hosted (URL)	Lesson in Mahara: http://mahara.ats2020.eu/group/view.php?id=540 Learning Design in English: https://resources.ats2020.eu/resource-details/LEDE/time_machine
Learning Design in Greek	https://resources.ats2020.eu/resource-details/LEDE/time_machine_el

II. Learning Design Macro-level

Learning goals - expected leaning outcomes
Body of knowledge (National curriculum)

- Describe their own fictional time machine, based on the given material and with sources/images they will find themselves.
- Describe the changes that need to be made during the transition from one period to another (e.g. clothes, speech).
- Do a research regarding the students' preferences for the period they would like to travel to, listing the information for each period which will arise from a survey.
- Describe a 'Time travel' adventure which culminates in France, which they have learnt through Geography lessons (criteria for the era, utilisation of the time machine's description, etc.).
- Use future tenses and hypothetical sentences.

Digital Tools (affordances)

- Internet access
- Mahara
- My Learning (Journals)

Tasks to develop these competences towards the learning outcomes

- Complete "My Learning" Journal, stating their prior knowledge about time machines and time travel, their goals and strategy for the unit, and the evidence of their assignments and evaluations (self-evaluation / teacher's evaluation / peer evaluation).
- Study the given handout and visual material about time machines and time travel.
- Search the Internet in groups and find relative sources (pictures, articles, etc.) about time machines (characteristics, form, etc.).
- Utilise sources and in pairs create written text/description of how they imagine their own "Time Machine".
- Share copies of their material (e.g. time machine description, questionnaire, etc.) via emails to multiple recipients using the 3 fields: to, cc, bcc.
- Create group research/bibliography overview for the production of written text regarding the time periods (the time of the dinosaurs, Ancient Greece, Middle Ages – Byzantium, Greek Revolution).
- Create electronic questionnaire (Google Forms) to research the students' preferences regarding the period they would choose to time travel.
- Collect and analyse on a chart and share their research data.
- Create ideogram on MindMaple for the "Time Travel" text they will create.
- Create a fictional story based on the original description of their time machine and the ideogram they have created

Leaning outputs – through all stages (assessment)

Production of written text/description of their own "Time Machine".
Written text /bibliography overview about the time periods (the time of the dinosaurs, Ancient Greece, Middle Ages – Byzantium, Greek Revolution).

- Digital questionnaire (Google Form).
- Research results / quantitative data.
- Ideogram on MindMaple.
- Fictional story/written text "Time Travel".
- Self-evaluation. Feedback – Assessment from teacher.
- Peer evaluation – Assessment from classmates.
- "My Learning" Journal for the unit "Time Machine".
- ePortfolio for the unit "Time Machine".

Skills and competences necessary to reach the expected outcomes

Targeted

Collaboration and Communication

- Interact, collaborate and publish with peers, experts or others, employing a variety of tools and environments.
- Communicate information and ideas effectively to multiple audiences, using a variety of media and formats.
- Contribute to group projects to produce original works or solve problems.

Information Literacy

- Plan strategies to guide inquiry.
- Evaluate and select information sources and tools based on the appropriateness to specific tasks.
- Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media.
- Process information and construct new knowledge.

Creativity and Innovation

- Innovating and creatively using tools and resources.
- Create original works as a means of expression.

Emerging

Autonomous Learning

- Recognise basic learning needs based on pre-existing knowledge.
- Define goals to pursue and develop strategy to achieve them.
- Evaluate the process and results, and provide evidence of achievements.

Digital Skills

Critical Thinking

III. Learning Design Micro-level

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
LESSON 1: Travelling with the Time Machine **Introduction to the unit's goals**			**Unit goals** Teacher informs students about the unit's targeted goals, according to which students have to: 1) Describe their own fictional time machine, based on the given material and with sources/images they will find themselves. 2) Describe the changes that need to be made during the transition from one period to another (e.g. clothes, speech). 3) Do a research regarding the students' preferences for the period they would like to travel to, listing information for each period which arose from a survey, and asking them to justify their answers. 4) Describe a "Time travel" adventure which culminates in France, which they have learnt through Geography lessons (criteria for era, utilisation of the time machine's description, etc.). 5) Use future tenses and hypothetical sentences.	- Prepares the lesson (goals, instructions, presentations, Google Forms) on **Mahara**. - Informs students about the unit's goals.	**Mahara**	Class discussion	- Students are informed about the unit's goals.	
Activity 1: Learning Entry – ePortfolio			Teacher informs students that the time has come to travel in time (past and future)… so they have to be ready physically (exercise well, take vitamins), mentally (arouse their curiosity, use their criteria and correct language) and spiritually (armed themselves with courage, patience and perseverance) and fastened themselves for this magical journey… **Task 1.1:**	- Guides students to create and complete **"My Learning"** Journal. - Guides students to create **"My ePortfolio – Time Machine"**	- **Mahara** - **"My Learning"** Journal - **"My ePortfolio– Time Machine**	- Individual work	- Students complete the first three tabs in **"My Learning"** Journal, defining thus their prior knowledge	

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
			Teacher asks students to go to **Mahara** and from **"Contents"** select **"Learning Entry"** and create a **"New Learning Entry"**, which they will name **"My Learning – Time Machine"**. After they have prepared it, teacher asks students to go to the journal, which they have created, and note down in the tab **"Prior Knowledge"** what they know about time machines, if they believe in their existence, and if they would like to travel in time and why. Next, teacher asks students to note down in the tab **"Setting Goals"** what they don't know and would like to know about time machines and time travel, and in the tab **"Strategies"** how they would like to work for this unit; i.e. individually, in pairs or in groups. **Task 1.2:** Then, teacher asks students to go to **"Briefcase"** on Mahara and create a new page which they will name **"My ePortfolio - Time Machine"**. Next, teacher asks students to join the tab **"My Learning – Time Machine"** with the tab "**My ePortfolio - Time Machine"**. More specifically, teacher asks students to click edit in the tab "**My ePortfolio - Time Machine"** and from **"General"** add **"Learning Entry"**. Then to click on **"Learning Entry"** to edit and **"My Learning – Time Machine"** to join the two pages and click save. Finally, teacher asks students to add **"Profile Information"** from **"Personal Information"** and after they have selected all the fields to appear on their page to click save.	and add their **"My Learning"** Journal and their personal information.			of the unit, their goals and the strategy which they will employ. - Students create "**My ePortfolio – Time Machine"** and add their **"My Learning"** Journal and their personal information in **"Profile"**.	

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
Activity 2: Time Machine…	**Subject area goals** - Students describe their own fictional time machine, based on given material and with sources/images they will find themselves. - Use future tenses and hypothetical sentences.	**Information Literacy** - Students plan strategies to guide inquiry. - Students evaluate and select information sources and tools based on appropriateness to specific tasks. - Students locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. - Students process information and construct new knowledge. **Collaboration & Communication** - Students interact, collaborate and publish with peers, experts or	**Task 2.1: Motivation** Teacher asks students to watch on **Mahara** the trailer 'Time machine' **https://www.youtube.com/watch?v=90T7iLuzFgg** and write down in the comments at the bottom of the page the facts that refer to a journey in time. Next, teacher asks students to discuss in class what type of list could be created with everything they have mentioned so that they can be considered as characteristics, which will have to be included in a **'Time Travel'** description in the 3rd lesson. **Task 2.2: Time Machine** Teacher asks students to read in their Student's Book (Volume 2) the text **"A Time Machine"** on page 64 and discuss in class about its references to time machines. Next, teacher asks students to carry out in pairs a search on the Internet, regarding the descriptions that exist for time machines. More specifically, teacher asks students to find sources and images that refer to time machines and mention the relevant links in the **forum.** Finally, after they have studied the material and utilised the information from their classmates, teacher asks students to write on **Google Drive** their own complete description (in pairs) for the time machine. **Task 2.3: Distribution** Teacher asks students to send the descriptions of their time machines via email to their teacher, to receive **feedback**.	- Informs students about the tasks they have to do. - Guides students during the discussion and tasks.	- **Mahara** - Video motivation trailer 'Time machine' **https://www.youtube.com/watch?v=90T7iLuzFgg** - Greek Student's Book (Volume 2) - **Forum** (discussion) - **Google Drive** - Email	- Group discussion - Pair work	- Students find facts in video and written texts, which refer to a journey in time. - Students discuss and create a list with the characteristics of a journey in the future, which can be used in a descriptive text. - Students work in groups and find relevant sources about time machines. - Students to utilise effectively the sources and create a description of their own time machine.	- Feedback for the time machine text, written text via email from the class teacher and the other recipients.

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
		others, employing a variety of tools and environments. - Students contribute to group projects to produce original works or solve problems.	Teacher says that the main recipient of the email will be her, so they will have to enter her email address in the field (to). Teacher says that they will have to enter the email addresses of the recipients in the field (cc), and explains that in this way whoever is mentioned in the field cc will receive a copy and can see to who else a copy of the email has been sent. Meanwhile, teacher mentions that Mrs Giorgalli, must receive a copy of the email and her email address should be entered in the field (bcc), explaining that in this way whoever is mentioned in the field bcc will receive a copy of the email but no one else can see them. So Mrs Eleutheria can see that a copy has been sent to Mrs Panayiota and Mr Constantinos but NO ONE can see Mrs Eleutheria, neither Mrs Panayiota nor Mr Constantinos. Finally, after they have made the necessary changes based on the given feedback, teacher asks students to add the link of their assignment in the tab **"Evidence"** in the journal **"My Learning – Time Machine"**.				- Students send the description of their time machine via email, utilising all the fields (i.e. to, cc, bcc). - Students utilise effectively the given feedback so that they can make all the necessary changes to the description of their time machine.	
Activity 3: Self-evaluation			Next, teacher asks students to find on Drive the file **(file)** with their name and complete their self-evaluation table. Then, she asks them to go to **"My Learning"** Journal and add the link of their self-evaluation in the tab **"Self-evaluation"**.	- Informs students about their self-evaluation regarding their skills of information literacy and collaboration and communication.	-**Mahara** -Self-evaluation questionnaire on Drive -**"My Learning"** Journal	Individual work	Students to evaluate their skills of collaboration and communication and information literacy.	**Self-evaluation Tool 1**

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
LESSON 2 **Time Travel!** **Activity 1:** **Travelling in the future can become a reality**		**Collaboration & Communication** Students communicate information and ideas effectively to multiple audiences, using a variety of media and formats.	**Tasks 1.1:** Teacher asks students to find Lesson 2 on **Mahara** and click on the link **https://deltahacker.gr/timetravel/** to read the text **"Does time travel exist already?"** After reading the text, teacher asks students to write down their thoughts about what they have read in the field "Comments" at the bottom of the lesson page on **Mahara**. Next, teacher asks students to share their thoughts with the rest of the class, leading thus into an open discussion about time travel.	- Guides students in the task and the discussion.	- **Mahara** - Text **"Does time travel exist already?"** at **https://deltahacker.gr/timetravel/**	- Individual work	- Students find relevant information about time travel and share their thoughts with the class.	
Activity 2: **Let's Investigate**	**Subject area goals** 1. Describe the changes that need to be made during the transition from one period to another (e.g. clothes, speech). 2. Do a research regarding the students' preferences for the period they would like to travel to, listing the information	**Collaboration & Communication** - Students interact, collaborate and publish with peers, experts or others, employing a variety of tools and environments. - Students contribute to group projects to produce original works or solve problems. **Information Literacy**	**Task 2.1:** Teacher tells students that since travelling in time may become a reality in the future to conduct a similar research like the one the students in their Student's book page 64 have conducted so that they can find in which period the students of Primary School Lympion wish to travel to. First, teacher asks students to split into four (4) groups before they begin their research and find information about the 4 time periods: the time of the dinosaurs, Ancient Greece, Middle Ages – Byzantium, Greek Revolution. She explains to the students that before they ask the students of Primary School Lympion, they have to prepare material (a small presentation) for these four (4) periods so that they can inform the students. Teacher divides the students into four (4) groups and after they have found information on the Internet about the period that was	- Prepares lesson (instructions, texts, Google Forms, presentations ppt) on **Mahara**. - Informs students about the task they have to do. - Guides and facilitates the students.	- **Mahara** - Greek Student's Book (Volume 2) - Google Docs files. Group A: **The time of the dinosaurs** Group B: **Ancient Greece** Group C: **Middle Ages- Byzantium**	- Group work	- Students find information about the time periods: the time of the dinosaurs, Ancient Greece, Middles Ages- Byzantium, and Greek Revolution. - Students prepare a presentation about the periods (the time of the dinosaurs,	

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
	for each period which will arise from a survey. 3. Use future tenses and hypothetical sentences.	- Students plan strategies to guide inquiry. - Students evaluate and select information sources and tools based on appropriateness to specific tasks. - Students locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. - Students process information and construct new knowledge.	assigned to them, she asks them to prepare in the file Google Docs that has been assigned to them a small presentation. Group A: **The time of the dinosaurs** Group B: **Ancient Greece** Group C: **Middle Ages-Byzantium** Group D: **Greek Revolution** Teacher informs that their presentation needs to include the following information: • To which era does their period refer? How many years ago? • What are the main characteristics of the period? • Why would they like to live in that period? • Relevant images • Reference to their research's sources. Teacher asks students to go to **"My Learning"** Journal and add the link of their group assignment in the tab **"Evidence"**.		Group D: **Greek Revolution**		Ancient Greece, Middles Ages-Byzantium, and Greek Revolution) and mention the relevant sources of their information.	
Activity 3: Research "Time Travel"		**Collaboration & Communication** - Students interact, collaborate and publish with peers, experts or others, employing a	**Task 3.1:** Teacher asks students to access Google Forms, which is posted on **Mahara** (**http://mahara.ats2020.eu/view/view.php?id=14088**), and each group has to add the question "How many children from each class would like to travel to…" Next, after completing the questionnaire, teacher asks students to embed it on the class blog along with the presentations they have	- Informs students about the task they have to do. - Guides and facilitates the procedure whenever is necessary.	- Mahara - Greek Student's Book (Volume 2) - Google Forms - Class blog	- Group work	- Students create an electronic questionnaire (Google Forms) for their research. - Students embed the questionnaire	

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
		variety of tools and environments. - Students communicate information and ideas effectively to multiple audiences, using a variety of media and formats. **Creativity & Innovation** - Students innovate and creatively use tools and resources.	prepared for each period, so that all the classes can answer it. Finally, teacher asks students to inform the teachers of Primary School Lympion about the research they are conducting and their new post via email (to: Mrs Maria Raouna, cc: to all the teachers of their school, and bcc: to Mrs Panayiota Hadjittofi). Teacher asks students to go to **"My Learning"** Journal and add the link to their questionnaire in the tab **"Evidence"**.				and presentations they have prepared for the four (4) periods on the class blog. - Students inform via email the teachers of Primary School Lympion for the conduction of their research, utilising all the fields of an email (i.e. to, cc, bcc).	
Activity 4: The results travel…		**Collaboration & Communication** - Students interact, collaborate and publish with peers, experts or others, employing a variety of tools and environment - Students communicate	**Task 4.1:** After they have collected the answers of the school's students, teacher asks students to use the link **Google Sheets file** that is in the lesson on **Mahara** and add the data to it, so that they can create a graph altogether. Teacher asks students to go to **"My Learning"** Journal and add the image with the results in a graph in the tab **"Evidence"** and share them on the class blog.	- Informs students about the task they have to do. - Guides and facilitates the procedure whenever is necessary. - Informs students about the entry in **"My Learning"** Journal.	- Mahara **Google Sheets file (Excel)** - "**My Learning**" Journal - Class blog	- Group work	- Students collect the answers of Primary School Lympion's students. - Students analyse the data and create a graph of the results.	

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
		information and ideas effectively to multiple audiences, using a variety of media and formats. - Students contribute to class projects to produce original works or solve problems.					- Students share the results on the class blog.	
Activity 5: Self-evaluation			Teacher asks students to find on Drive the file (**self-evaluation report**) with their name and complete their self-evaluation table. Next, she asks them to go to **"My Learning"** Journal and add the link of their self-evaluation in the tab "**Self-evaluation"**.	- Informs students about their self-evaluation regarding their skills of information literacy and collaboration and communication.	- **Mahara** - Self-evaluation questionnaire on Drive - "**My Learning** " Journal	- Individual work	Students evaluate their skills of collaboration and communication, information literacy and creativity and innovation.	**Self-evaluation Tool 2**
LESSON 3 Description of a time travel Activity 1: Pre-writing phase			**<u>Task 1.1:</u>** Teacher informs students that today they will travel with the time machine they have already designed/described (pair work). Teacher informs students that initially they will have to decide with the partner they have designed the time machine to which period they would like to travel, having in mind the following criteria: -Which are the characteristics of the period they would travel to?	- Prepares the lesson (instructions, ideogram) on **Mahara**. - Informs students about the task they have to do.	- **Mahara**	- Group work	Students are informed about the written description they have to produce as well as the criteria they have to take into consideration	

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
			-Who would they like to meet? -What is the secret hidden in the history and period they will travel to? - What are they hoping to discover about it? -What else would make their journey exciting for the reader? -Their journey should end in Magical France! Teacher informs that they should also take into consideration that: -If they talk about the past, they have to use **past tenses**. -If they talk about the future, they have to use **future tenses**.				during the writing process.	
Activity 2: **Pre-writing Phase**		**Collaboration & Communication** - Students interact, collaborate and publish with peers, experts and others, employing a variety of tools and environments. **Creativity & Innovation** - Students innovate and creatively use tools and resources.	**Task 2.1:** Teacher asks students to create in pairs an ideogram on **MindMaple** (example HERE), which should include their original ideas for the description they have to do. Teacher stresses that their ideogram has to be based on the criteria they have been given, i.e. the period's characteristics, the heroes, the mystery, the revealing/exciting fact, useful words for describing, etc. Finally, teacher informs students that after they have prepared their ideogram, they have to upload it in the folder on Google Drive https://drive.google.com/drive/folders/0B0v83a5JoZBPVnltZUtlbnl4Nms?usp=sharing, and add the link in the tab Evidence in **"My Learning"** Journal and also add the image after they have taken a screenshot of it.	- Informs students about the task they have to do. - Facilitates the process whenever is necessary. - Informs students about **"My Learning"** Journal entry.	- **Mahara** Ideogram on MindMaple - "**My Learning**" Journal	- Group work	- Students prepare on an ideogram the original ideas for the description they will do.	

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
Activity 3: Writing Phase	**Subject area goals** 1) Describe a "Time Travel" adventure which culminates in France, which they have learnt through Geography lessons (criteria for the era, utilisation of the time machine's description, etc.). 2) Use future tenses and hypothetical sentences.	**Collaboration & Communication** - Students interact, collaborate and publish with peers, experts or others, employing a variety of tools and environments. - Students communicate information and ideas effectively to multiple audiences, using a variety of media and formats. **Creativity & Innovation** - Students create original works as a means of expression.	**Task 3.1:** Teacher tells students that they have to click on the link **'Time travel'** from the lesson on Mahara and create a file in the particular folder, where they have to write their story, using their original description for their time machine and their ideogram. After each group uploads their descriptive text about time travel, teacher asks students to use the file in the **Drive** file to proceed in peer evaluation and give feedback to their classmates about their assignment. Finally, after students have evaluated the comments and the peer evaluation of their assignment and made the necessary changes, teacher asks students to go to **"My Learning"** Journal and add their assignment in the tab **"Evidence"**.	- Informs students about the task they have to do.	- Mahara - Each group's file on Google Drive in the folder **'Time Travel'** - "**My Learning**" Journal	- Group work	Students create their own descriptive text about time travel. - Students evaluate the comments from their classmates' feedback on the context of their text and make the necessary changes on their descriptive text.	Peer evaluation (students evaluate the context of their classmates' descriptive text **"Time Travel"**. **Evaluation 3**
Activity 4: Self- evaluation – Peer evaluation			**Task 4.1:** Teacher asks student to find on Drive the file **(Drive)** with their name and complete their self-evaluation – peer evaluation table.	- Informs students about the evaluation process.	- Mahara - Class evaluation on file on	Individual work	-Students evaluate their skills of collaboration and	**Evaluation 4**

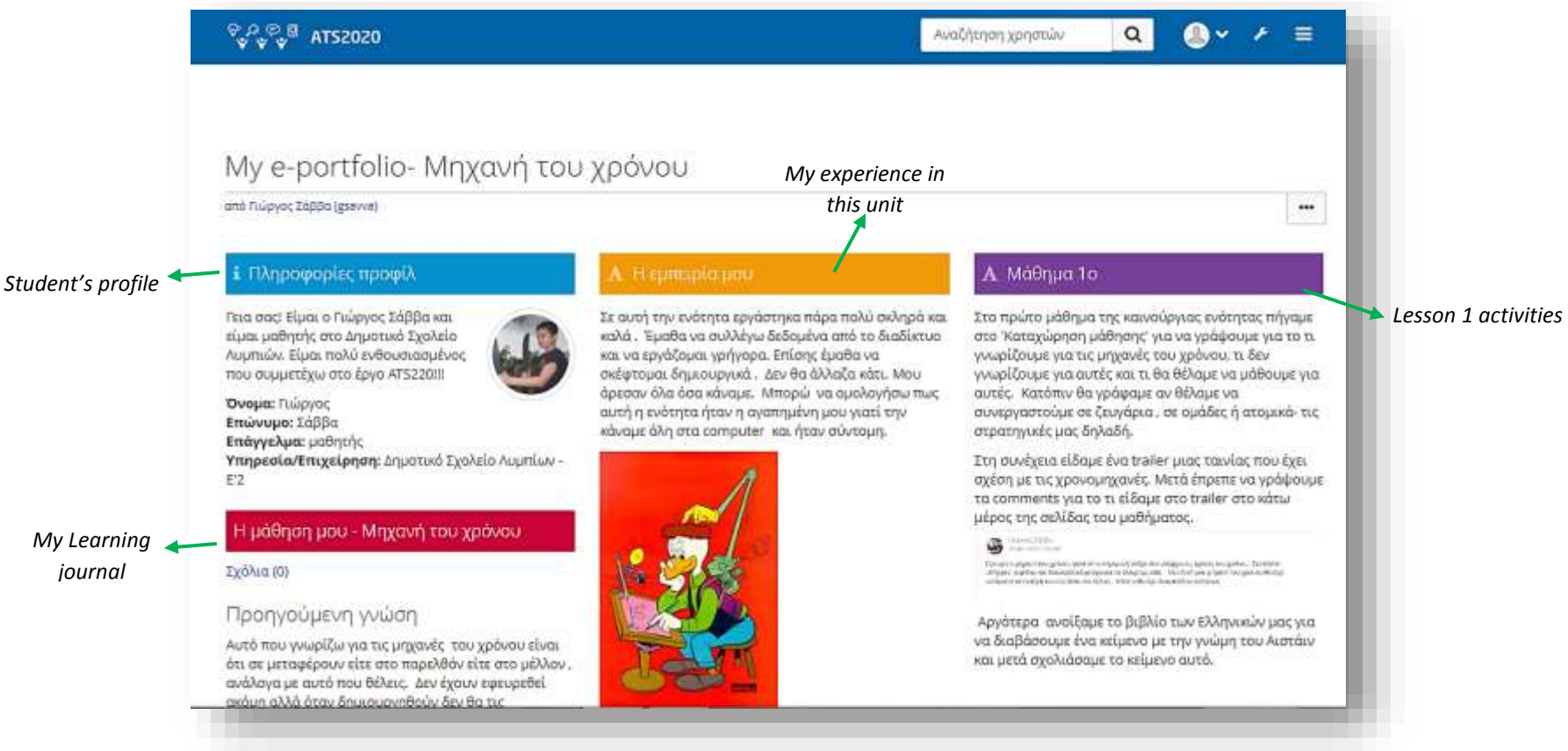
Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
			Next, she asks them to go to **"My Learning"** journal and add the link of their self-evaluation in the tab **"Self-evaluation"**.		Google Drive **(Drive)**		communication, information literacy and creativity and innovation.	
LESSON 4 **Let's create our ePortfolio!** **Activity 1: Guidance**		- Autonomous learning	**Task 1.1:** Teacher asks students to reflect, evaluate and describe what they have learnt in this unit and what they have created. She explains that they can show again part of or their entire assignments on this page, i.e. what they have done, what happened and more specifically, which ATS2020 skills they have developed from each task. Finally, teacher cites a guiding table on the basis of which she asks students to build their **ePortfolio**. -My experience in this unit (how I worked; what I think I have learnt; what I could have done better; what I would change; which assignment I liked more and why) -1st lesson – assignment (description and citation – link and image) -2nd lesson -assignment (description and citation- link and image) -3rd lesson - assignment (description and citation - link and image) -Skills I have developed in this unit (refer to their self-evaluations and complete the skills, but also add the links).	- Prepares lesson (instructions) on Mahara. - Guides students on how to create their **ePortfolio**.	Mahara **ePortfolio**	- Individual work	Students can reflect, evaluate all their assignments and present them in their **ePortfolio**, presenting what they have learnt at knowledge level and which skills they have developed. Complete ePortfolio. **Exemplar ePortfolios**	
Activity 2: Presentation and Distribution of ePortfolio.			**Task 2.1:** Teacher asks students to share with her their **ePortfolio** page for the final evaluation.	- Explains to students the self-evaluation process.	- Assessment tool on **Drive.**	- Individual work	Reflection and self-evaluation. Complete assessment	Final assessment tool of the ePortfolio, which the

Activity	Learning goals - outcomes		Tasks (students/teacher)	Teacher's role	Tools	Methodology - Classroom Arrangement	Expected learning outputs	Assessment tool
	Subject area	Transversal skills						
Self-evaluation ATS2020 Transversal Skills			Finally, teacher asks students to evaluate, on the basis of their reflection, the ATS2020 skills they have developed throughout the unit. Students can find the evaluation tool on **Drive.**				tool of ATS2020 transversal skills.	teacher evaluates the student's ePortfolio. **Evaluation 5** Final assessment tool which students evaluates the skills of information literacy, collaboration and communicatio n and creativity and innovation. **Evaluation 6** Final assessment tool of transversal skills ATS2020, which teacher evaluates the students' skills. **Evaluation 7**

IV. Material, resources and students' artefacts

The assessment tools are available in Greek in the resource portal version of the lesson

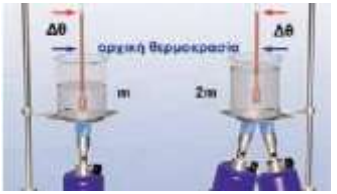
Exemplar ePortfolio



http://mahara.ats2020.eu/view/view.php?t=nCho2WHlcG3kjpATwVqJ

CYPRUS

Physics: Heat and Calorimetry



I. GENERAL DESCRIPTION

Country	Cyprus
Author/Editor	Manolis Kyriakakis
School	Engomi Gymnasium- Kyriakos Neocleous
Subject	**PHYSICS**
LD Title	**Heat and Calorimetry**
Year goup	3rd grade of Secondary Education (14-15 years)
Duration	4 periods
Short description	The present learning design focuses on the understanding of the phenomenon of the change of temperature of a body, by engaging students in activities during which they explore the factors determining this change. By studying various informational sources, as well as by engaging in experimental activities designed by themselves, students figure out the factors that determine the change of temperature of a body, they formulate the mathematical relationship of the calculation of Calorimetry, and explain the importance of the heat capacity of water. They then solve quantitative applications in class.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/heat-and-calorimetry
Learning Design in Greek	https://resources.ats2020.eu/resource-details/LEDE/thermotita-thermidometria

II. Learning Design Macro-level

Digital Tools (affordances)
Use of Office365 OneNote- o365.ats2020, PPT, smartphones (photos and videos), digital questionnaires, Microsoft forms etc.)

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Compare the movements of molecules in solids, liquids and gases by use of simulations (1 period)
- Verify through experiments that the change of temperature of a body depends on the mass of the body in question, the quantity of temperature that is transferred from, or to the body, as well as from the type of material of the body
- They formulate the mathematical relationship of the calculation of the quantity of heat that is transferred to/ from a body. They evaluate and explain the importance of the heat capacity of the water to everyday activities (1 period).

Tasks to develop these competences towards the learning outcomes

- Students study the molecular structure of the three states of matter by running digital simulations
- Students complete the "My Learning Journal"
- Students carry out in the lab the experiments about the natural states of matter. They note down their observations in OneNote Class Notebook
- Teacher's presentation in class (3 stories). Students make assumptions in worksheet and announce them.
- Students take pictures or videos during the control activities of the factor that influences the amount of heat that is absorbed or released by a body. (Evidence can be uploaded).
- Students discuss with classmates of other groups and write down the factors studied by other groups. The teacher writes on the board the mathematical relationship that connects the amount of heat with the factors that affect it, and they discuss in class the units of measurement of the physical quantities. The specific heat capacity C, which is characteristic for the material.
- The teacher brings up the natural phenomenon of the sea and the sand and asks students to provide their interpretations (type of material).
- Students apply the mathematical relationship of Calorimetry in different quantitative applications in class and at the end, they fill in a multiple choice questionnaire about Calorimetry.
- Students develop their ePortfolios for the unit.

Leaning outputs – through all stages (assessment)

- Completed *My Learning Journals*
- Evidence of the group work of carrying out experiments and completion of information in *OneNote Collaboration Space*, as well as in the *private notebooks* of each student
- Completed experimental worksheet
- Collection of evidence (photos, videos) of lab activities (experiments on Calorimetry in OneNote Class Notebook)
- Completion of the self-assessment sheets on Calorimetry and Skills

Skills and competences necessary to reach the expected outcomes

Targeted

Information Literacy
- Process information and construct new knowledge.
- Integrate new knowledge and apply to new situations.

Creativity and Innovation
- Identify and match needs with possible solutions.
- Integrate and re-elaborate.

Emerging

Collaboration and Communication
- Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments.

Autonomous Learning
- Autonomous Learning Skills

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology Classroom Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	**Transversal skills**						
Worksheet: Molecular Structure of the natural states of matter (1 period) The use of simulation for the molecular structure of the natural states of matter	Students compare the movements, forces and distances between molecules in solids, liquids and gases, by the use of simulations.	Information Literacy - Process information and construct new knowledge. Digital Literacy and Communication skills - Students collaborate, and interact by using a simulation (See Simulations for the interpretation of the molecular structure Appendices and answer questions their private notebooks about the molecular structure of the three states of matter.	The teacher brings up and connects the previous unit with the characteristics of solids, liquids and gases concerning the volume and form. He/She asks students to complete the initial table. He/ She explains what the forecast and representation model is, and how it can be used in the case of molecular interpretation of the natural states of matter with regard to forces, movements and distances between molecules. A short video is run about the molecular interpretation of matter and a simulation is presented (See video for molecular structure of the natural states of matter- See Appendices Students write down their observations in the worksheet (See Worksheets Molecular Structure of Matter- Appendices Parmenides and Democritu's views are presented and a	The teacher provides support and guidance, based on the instructions of the worksheet. The goal is for students to realize and write down the different ways in which molecules interact in each natural state. He/She asks students to use a simulation, so that they can complete their homework assignment in OneNote Class Notebook.	- Simulations for the interpretation of molecular structure- See Appendices - Videos for the molecular structure- See Appendices - Worksheets on the Molecular structure of matter- See Appendices	Students are sitting in groups, and attend their teacher's presentation on the molecular structure of the natural states of matter.	- Molecular motion in solids, liquids, and gases, by the use of a simulation. - Worksheets completed by students	- Completion of homework in class - Formative assessment in class as well as through the discussion with students - Assessment of students' work in OneNote Class Notebook

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology Classroom Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
			discussion takes place regarding their accuracy or not. The lesson comes to an end with the reference to the change of a state as well as to the ways that the interaction of molecules changes when a liquid turns into gas, and liquid turns into a solid respectively.					
Worksheet: Experimental Activity (1 period) The teacher presents a natural phenomenon (PPT) relating to Calorimetry. He/She presents students with three short stories, and asks students to explore one of the factors that affects the amount of heart absorbed or	Students verify in an experimental way the relationship of the temperature change of a body to the mass of that body, the amount of heat transferred from or to this body, as well as to the type of material of that body.	<u>Information Literacy</u> Students draw conclusions from the data collected during implementation of the appropriate experimental schedule. They process information and construct new knowledge. <u>Collaboration and Communication</u> Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments. <u>Creativity and Innovation</u> Students identify needs (resolve a question), and utilize	The teacher presents the natural phenomenon occurring with the sand and water of the sea during the Summer (daytime/night time), in a PPT presentation (PPT presentation material – See Appendices, and asks students to carry out the experiment relating to the exploration of one of the factors (mass, type of liquid, change of temperature) Asks students of each group to talk in class with classmates of other groups, and write down the factors studied by other groups. If there is time available, students write down their observations in their private notebooks (OneNote) while experimental work takes place. Students are expected to	- The teacher presents the natural phenomenon (sand and water) - The teacher has a guiding role during the experiments. - The teacher manages the instruments and makes them available to students. He also oversees the time resources.	- The worksheets distributed to teams (Worksheets on Calorimetry- See Appendices - Teacher's PPT presentation- PPT presentation material on Calorimetry- See Appendices - The instruments and materials of the laboratory	- Students are sitting in groups in the Physics lab. - The groups collaborate, complete the worksheet, and announce the results in the plenary. - Each student transfers evidence of their work in their private notebooks (OneNote).	- Experimental investigation of the relationship between the change of temperature of a body, and the mass of the body, the quantity of heat that is transferred from or to the body, as well as the type of material of the body in question. - Completed worksheets of each group.	- Students are assessed by the teacher during the execution of the experimental activities, by the use of an observation sheet - Assessment is completed with the assessment of the conclusions that students make and write down in OneNote, after the completion of the

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology Classroom Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
released by a body.		resources and materials (experiment) in order to prove the mathematical relationship of Calorimetry.	upload evidence of their work in the groups in the collaboration space, and write down a substantiated conclusion about the factor that they have investigated.					experimental activities. - The completed fields in students' *My Learning Journals* - (See in Appendices *My Learning Journal for the Unit*)
Worksheet Experimental Activity- Completion – 1 period Presentation of the findings of each group in the plenary, and formulation of the mathematical relationship of Calorimetry. Presentation and study of Specific Heat Capacity C.	Students put forward the mathematical relationship of calculating the amount of heat that is transferred to and from a body. Students evaluate and explain the importance of heat capacity of the water in everyday life	<u>Collaboration and Communication</u> Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments.	The teacher brings back to the lesson his/her initial presentation and asks students to mention the factors that affect heat. He/She summarizes the factors, and the students answer the questions raised about the factors. The mathematical relationship about Calorimetry is formulated in the plenary. The physical quantities as well as the measurement units that will be used are written down. Discussion takes place about the factor "water", and the Specific Heat Capacity is defined.	-The teacher asks the students of each group to talk with the students of other groups, and write down the other factors studied by the groups. -The teacher writes on the board the mathematical relationship connecting the amount of heat with the factors determining it (type of material, mass, change of temperature). A discussion takes place about the	- Worksheet on Calorimetry (See Appendices) - PPT presentation- Material on Calorimetry containing the example with the water and the sand- See Appendices	- Students sit in groups in the lab - Groups collaborate, complete the worksheets, and announce the outcomes in the plenary - Each student transfers evidence, and writes the conclusions in his/her private notebook (OneNote).	- Mathematical relationship for calculation of the amount of heat transferred from or to a body: $\Delta Q = m\,c\,\Delta T$ - Definition of Specific Heat Capacity c. - Discussion about the effect of the large Heat Capacity of water in everyday life e.g. climatic conditions	- Assessment of the students' private notebooks as well as of the degree of participation in the *Collaboration Space (OneNote)* of each group. - Homework based on the worksheet.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology Classroom Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
				measurement units of physical quantities -The Specific Heat Capacity C, relevant to the type of material is defined. -The teacher comes back to the natural phenomenon of the sand and the sea, and asks students to provide an interpretation (type of material).				
Worksheet on quantitative applications of Calorimetry (1 period) Students solve quantitative applications of the mathematical relationship of Calorimetry	Students apply the mathematical relationship of Calorimetry	Information Literacy Students integrate new Knowledge and apply it to new quantitative problems Autonomous Learning Students through completion of formative assessment questionnaires (on Calorimetry and scaffolding tool) reflect on their learning, and explore alternative approaches (new approach when knowledge gaps and	Students solve the quantitative applications in class. They discuss with the teacher potential questions or difficulties. They answer the multiple choice questions about Calorimetry in OneNote (o365.ats2020.eu)	The teacher answers students' questions whilst they are solving the quantitative applications. Teacher receives information about the development of students' ePortfolios, and provides guidance	- Worksheet on quantitative applications - (See *Quantitative Applications of relationship of Calorimetry* – See Appendices - Multiple Choice Questions in OneNote application - Formative Self-Assessment Scaffolding Tool of Students' Competences and Skills - https://resources.ats2020.eu/resource-	Individual work- solving of quantitative applications of the mathematical relationship of Calorimetry Individual work – completion of questionnaire	Quantitative Applications of the relationship $\Delta Q = m\ c\ \Delta T$-	- Assessment is ongoing and formative during the solving of quantitative applications - Completion of questionnaire on Calorimetry- See Appendices - The completion of the Formative Self-Assessment

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology Classroom Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
		questions arise in the unit of Calorimetry).			details/SCTS/assessment-student			Scaffolding Tool of Students' Competences and Skills - https://resources.ats2020.eu/resource-details/SCTS/assessment-student The sections on Information Literacy and Creativity and Innovation should be completed by the students for this Learning Cycle

IV. Material, resources and students' artefacts

APPENDICES		
	ACTIVITY	**MATERIALS- RESOURCES-TOOLS**
1	*My Learning Journal* for the unit.	https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg See also: https://resources.ats2020.eu/resource-details/ADM/learning_journal_en
2	Molecular structure of the natural states of matter.	- Simulations for the molecular structure of matter: Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Θερμότητα- Θερμιδομετρία (Φυσική Γ΄Γυμνασίου)* - A video about the molecular structure of the natural states of matter: Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Θερμότητα- Θερμιδομετρία (Φυσική Γ΄Γυμνασίου)*
3	Experimental investigation of the relationship determining the change of temperature of a body.	- Worksheets: Molecular structure of matter. Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Θερμότητα- Θερμιδομετρία (Φυσική Γ΄Γυμνασίου)* - Activity on the natural states of matter. Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Θερμότητα- Θερμιδομετρία (Φυσική Γ΄Γυμνασίου)* - Worksheets on Calorimetry. Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Θερμότητα- Θερμιδομετρία (Φυσική Γ΄Γυμνασίου)* - PPT presentation material on Calorimetry. Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Θερμότητα- Θερμιδομετρία (Φυσική Γ΄Γυμνασίου)*
4	Formulation of the mathematical relationship of Calorimetry	Worksheet: Quantitative Applications of the relationship of Calorimetry Available at https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg under *Θερμότητα- Θερμιδομετρία (Φυσική Γ΄Γυμνασίου)*
5	Formative Assessment	Formative Assessment on Calorimetry https://ats2020-my.sharepoint.com/personal/nicolina_markidou_ats2020_eu/_layouts/15/guestaccess.aspx?folderid=0097fc6c02f7c4ab69de70549e4f49959&authkey=Aa5LXMqbFyit-jxz9my2nDg

Formative Assessment Scaffolding tool 1

Formative Assessment Scaffolding Tool of Students' Competences and Skills: https://resources.ats2020.eu/resource-details/SCTS/assessment-student

Formative Assessment Scaffolding tool 2

Assessment Scaffolding Tool for Students' ePortfolios: https://resources.ats2020.eu/resource-details/SCTS/assessmentToolePortfolio

Student's ePortfolio

Εργασία θερμικής μόνωσης

Wednesday, April 5, 2017 1:50 PM

Διάδοση της θερμότητας σε διαφορετικά στερεά υλικά

Ο Αντώνης ισχυρίζεται ότι το υλικό που χρησιμοποιήθηκε για το κτίσιμο των σπιτιών δεν επηρεάζει το πόσο γρήγορα μεταφέρεται η θερμότητα προς το περιβάλλον.

Για να επιβεβαιώσει ή να διαψεύσει τον ισχυρισμό του, σχεδίασε μια έρευνα. Χρησιμοποίησε ποτηράκια από τρία διαφορετικά υλικά: σίδερο, πολυστερίνη και γυαλί (γύψο). Αφού έριξε ίδια ποσότητα ζεστού νερού στα τρία ποτηράκια, τα τοποθέτησε σε δοχεία με κρύο νερό. Ακολούθως άρχισε να καταγράφει τη θερμοκρασία του νερού στο κάθε ποτηράκι κάθε μισό λεπτό.

Α) Να κάνετε το πείραμα και να συμπληρώσετε τα δεδομένα σας στον πίνακα που ακολουθεί.

Χρόνος (λεπτά)	Μεταλλικό ποτηράκι	Ποτηράκι από πολυστερίνη	Γυάλινο ποτηράκι
			
0	85	85	85
0.5	83	84	75
1	48	83	66
1.5	45	81	63
2	39	80	59
2.5	38	80	56
3	38	79	53
3.5	37	79	51
4	36	77	49
4.5	35	76	47
5	35	76	46

Από ποιο σώμα «μεταφέρεται» πιο γρήγορα η θερμότητα; Το μεταλλικό, το γυάλινο ή το σώμα από πολυστερίνη;

Παρατήρησα ότι στο μεταλλικό ποτηράκι η θερμοκρασία μειώνεται πολύ γρηγορά άρα μεταφέρεται πιο γρηγορά η θερμότητα. Αντίθετα στο ποτηράκι πολυστερίνης η θερμοκρασία μειώνεται πολύ αργά άρα μεταφέρεται πολύ αργά η θερμότητα.

Πειράματα Θερμιδομετρίας

Wednesday, April 5, 2017 1:49 PM

Αρχικά ζεστάναμε τα δυο μαρμελια με νερό και χρονομετρήσαμε το χρόνο που έβρασαν τα δυο υγρά. Όταν το νερό του Νίκου αυξήθηκε κατά 5 βαθμούς κελσίου απο την αρχική του θερμοκρασία, σημειώσαμε την τελική του θερμοκρασία και συνεχίσαμε να χρονομετρούμε για το νερό του Παύλου. Όταν το νερό του Παύλου ζεσταθηκε κατά 10 βαθμούς κελσίου δηλαδή το διπλάσιο σταματήσαμε το χρονομετρο και σημειώσαμε την τελική θερμοκρασια του νερού του Παύλου.

Τα όργανα μέτρησης που χρησιμοποιήσαμε είναι χρονόμετρο, θερμόμετρο, λυχνος και ζυγαρια.

CYPRUS

Design and Technology: Energy – Environmental Issues

I. GENERAL DESCRIPTION

Country	Cyprus
Author/Editor	Andri Armefti
School	Lefkara Gymnasium
Subject	**DESIGN AND TECHNOLOGY**
LD Title	**Energy – Environmental Issues**
Year group	Gymnasium, C' class
Duration	4x40'
Short description	Students will learn about energy and environmental issues that come from its use, through discussion activities, searching online and presenting the outcomes of their research.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/energy_en
Learning Design in Greek	https://resources.ats2020.eu/resource-details/LEDE/energy

II. Learning Design Macro-level

Learning goals - expected leaning outcomes
Body of knowledge (National curriculum)

- Recognize the importance of energy consciousness through energy saving and the use of renewable energy sources.
- Report environmental problems and suggest ways to address them.
  - Show, through examples, the environmental impact of atmospheric pollution, the destruction of the ozone layer and the uncontrolled deforestation
- Study and know the basic principles of how technology products and systems, work to reduce energy consumption.

Tasks to develop these competences towards the learning outcomes

- Complete "My Learning" journals
- Teacher presentation energy and renewable energy sources – student discussion on the presentation
- Students post in a Mahara page images presenting environmental problems. They write the problems presented in the images in the comment section.
- Students create Mahara page about an environment problem
- Book exercises
- Discussion on importance of saving energy
- Students, in groups, prepare a page in Mahara, presenting the solar water heater or photovoltaic systems
- Create ePortfolio

Digital Tools (affordances)
- Internet access
- Mahara group

Skills and competences necessary to reach the expected outcomes

Targeted:
Information literacy
- Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media.
- Process information and construct new knowledge.

Emerging:
Communication and Collaboration
- Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments.
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats.

Leaning outputs – th[illegible]gh all stages (assessment)

- My Learning journal
- Students' ePortfolio
- Mahara page with images (uploaded from students) that present environmental problems
- Mahara Page with definition and impact on the environment of environmental problems
- Mahara pages, for each student group, presenting the solar water heater or photovoltaic systems

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
My Learning journal	Identify previous knowledge		Students complete in their "My Learning" journals the fields of previous knowledge, goals and strategies regarding what they know about energy.	Gives guidelines for the completion of learning journals	-Learning journals in Mahara -Instructions in Mahara about creating and filling learning journal	Students' individual work on the computers	Completed fields previous knowledge, goals, strategies in "My Learning" journal	Teacher reads students learning journals
Teacher presentation	Recognize the importance of energy consciousness through energy saving and the use of renewable energy sources.		The teacher presents: energy definition, renewable energy sources (examples, advantages and disadvantages), non-renewable energy sources (examples, advantages and disadvantages). (With the use of software, presentation, video). A discussion with students about the presentation follows.	Presents the basic concepts of the unit	- Software use - Presentation Video	Teacher presentation		<u>Teacher</u> Observes students participation in the discussion
Mahara page on environmental problems	Report environmental problems and suggest ways to address them. - Show, through examples, the environmental impact of atmospheric	<u>Information literacy</u> - Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. - Process information and construct new knowledge.	- Students locate an image online that presents an environmental problem. Then they upload it to a common page in Mahara's environment. In the comment section on the page, everyone writes the environmental	-Gives instructions Helps students to locate pictures online	- Computers - Internet Mahara page	- Students' individual work on the computers Students comments on Mahara page	Mahara page with images with environmental problems that the students located and in the comment section of the page,	<u>Teacher</u> Checks whether the students have done their exercise in the Mahara page

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
	pollution, the destruction of the ozone layer and the uncontrolled deforestation		problems presented by the images all the students have uploaded.				comments from each student mentioning the environmental problems of the images	
Information on environmental problems	– Recognize the importance of energy consciousness through energy saving and the use of renewable energy sources. Report environmental problems and suggest ways to address them. - Show, through examples, the environmental impact of atmospheric pollution, the destruction of the ozone layer and the uncontrolled deforestation	Information literacy - Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. - Process information and construct new knowledge. Communication and Collaboration - Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments. - Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	- Students search for information about an environmental problem (mainly from the Internet), prepare a definition of the problem and write its impact on the environment. They present their work on a shared Mahara page. They should cover the following environmental problems: atmospheric pollution, ozone layer destruction, uncontrolled deforestation. They should cite the sources they used. [If there is time, a discussion follows about natural gas and LPG, the reasons it is important to find gas in a country and examples of how it is used.]	-Gives instructions Assists students to use Mahara and locate and choose useful information from the internet	- Mahara page internet	Pair work	Mahara page where environmental problems are presented	Teacher Checks whether the students have done their exercise in the Mahara page Observes the material that the students have uploaded and provides comments for improve-ment
Saving energy	Same as above plus: Study and know the basic principles of how	Communication and Collaboration - Interact, collaborate, and publish with peers, experts, or-	Energy markings and their meaning (book exercise - page 52) - Calculation of energy consumption (book	-Explains the instructions -Guides to the solutions	Student's book	Individual work Whole class discussion	Completed student's book worksheets	Teacher Checks the correctness of the students answers and

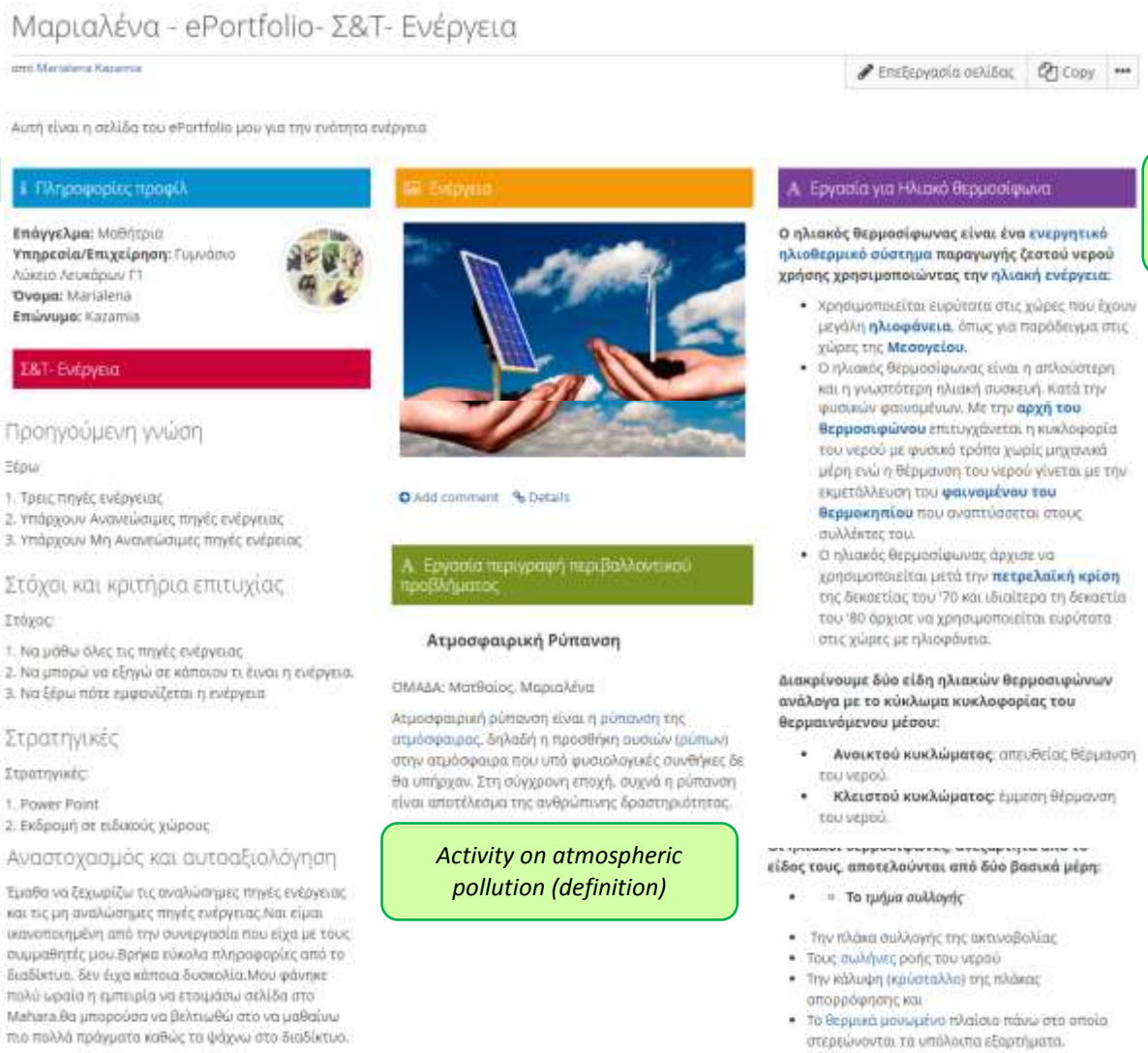
Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment
	Subject area	Transversal skills						
	technology products and systems, work to reduce energy consumption.	others employing a variety of tools and environments. - Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	exercise with a Power Authority account -page 53) Discussion with students about the necessity of energy saving in the current era and systems that help reduce energy consumption.	-Discusses with the students about saving energy				discusses with them the way of solving the exercises
Mahara page - solar water heater or photovoltaic systems	Same as above	<u>Information literacy</u> – Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media. – Process information and construct new knowledge. <u>Communication and Collaboration</u> - Interact, collaborate, and publish with peers, experts, or others employing a variety of tools and environments. - Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	Students in couples prepare a page in Mahara where they present the solar water heater or photovoltaic systems. They locate information online. Students are asked to be careful about the credibility of their sources and to cite their sources. They should include photos and videos. Peer evaluation of their work (based on a rubric)	Gives instructions Helps students to use Mahara and search information online	- Mahara - Internet	Pair work	- Mahara page (for every 2 students) for solar water heater or photovoltaic systems - Completed self-assessment tools	<u>Peer evaluation</u> Appendix (formative assessment tool)
ePortfolio creation		<u>Communication and Collaboration</u> Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	"My Learning" journal – Reflection Students create their ePortfolios	Gives instructions	Mahara	Individual work	Completed learning journals ePortfolio for every student	<u>Teacher</u> Gives comments for improving students' ePortfolios

IV. Material, resources and students' artefacts

Formative assessment scaffolding tool – Peer Assessment – Activity 6

INSTRUCTIONS: Check the page your classmates created and evaluate it based on the following table. Mark an X in the box that you think is more appropriate. Save your file and upload it as a comment under their Mahara page.			
Name: Surname:			
Group that I evaluate:			
	Very good	average	Needs improvement
They explained what the solar water heater/photovoltaic systems is/are.			
They explained the function of the solar water heater/photovoltaic systems.			
They used simple and easy to understand words to give their descriptions.			
They referenced their sources.			
They used relevant images.			
They used relevant videos			
They page is well organized (information are clear, arrangement is good, I can understand what the subject and the message is)			
Suggestions for improvement:			

Exemplar ePortfolio



Profile information

"My Learning" journal

Group activity on photovoltaic systems

Activity on atmospheric pollution (definition)

ESTONIA

English as a Foreign Language: London

English as a Foreign Language: London

I. GENERAL DESCRIPTION

Country	Estonia
Author/Editor	Marika Sarapuu
School	Tallinna Laagna Gümnaasium
Subject	**ENGLISH AS A FOREIGN LANGUAGE**
LD Title	**London**
Year group	8th Grade, Basic school (14-15 year olds)
Duration	3 lessons
Short description	The goal of the learning design is to gain knowledge on famous sights in London. Students form groups of 2-3 students. Each student makes a separate page of a famous sight. The group later creates a collection of pages which is shared with the whole class.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/london

II. Learning Design Macro-level

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Gain knowledge on London famous sights.
- Analyze data; make the choice between relevant and irrelevant data. Collaborative work, understand instructions and act according to the instructions, give feedback to peers, submit the work on time, being creative.
- Content: The content of the lessons is about London famous sights and everything connected to that. Integrated topics history, facts, fees, videos, photos, location.
- Competences: General competences (values, social, determine yourself, study competence, communication, entrepreneurial competence);
- Subject competences are development of the vocabulary, improving IT skills in the new environment.
- Learning activity: read, listen, watch, comment, post, share, create new pages, analyse.
- Assessment: The students will get 1 mark which is assessed on the scale from 1 to 5.

Tasks to develop these competences towards the learning outcomes

Fill in My learning • Introduction to the topic • Students are divided into groups and they are each given a specific topic to explore • Search and collect information • Prepare the presentations • Peer evaluation • Completion of My learning journal

1. Lesson: My Learning (1-3). Form groups; make a group page.
2. Lesson: design a page about one of London sights.
3. Lesson: Make a collection of the pages. Finish My Learning (4.-5.). Create a page of My Learning and share it with the teacher.

Skills and competences necessary to reach the expected outcomes

Targeted:

- Select, search, collect, retrieve and share information
- Preparing presentations using ICT means
- Developing collaboration skills
- Plan, monitor, share their learning
- Develop self-assessment skills

Emerging:

- Collaboration and communication skills

Leaning outputs – through all stages (assessment)

Online collaborative group works which are shared within the class group. • Peer-assessment • Gaining knowledge on the subject • Students individual My learning journals • Enriching vocabulary

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
Activity 1 Fill in My Learning points 1.-3.		Plan their learning (autonomous learning skills)	Students fill in their "My learning journal" what they already know and what they would like to learn identifying their goals. Revisit and fill in at their own needs during the whole unit.		Mahara "My learning journals"		Student's individual My learning journals with identified prior knowledge and learning goals.	
Activity 2 Form a group of 1-3.			Name a group. Add members to the group. Write a group description.		Mahara groups.	A group is formed. In the group there are 2-3 students.	Groups are formed.	
Activity 3 Make a group page. Create your page under the group page.	A group page is made. Each student creates one's own page under the group page according to the topic everybody is given by teacher.		1. A picture of the object. 2. A video of the object (max 5 min). 3. 5 facts about the object. 4. A picture of the location of the object. 5. The entrance fee to the object. 6. The history of the object (max 100 words).	Topics for the students: The London Eye Shakespeare's Globe Westminster Abbey The Tower of London St Paul's Cathedral The Houses of Parliament The Tower Bridge The Millennium Bridge The National Gallery Greenwich Regent Park Buckingham Palace	Mahara page creation.	To limit the information into 5 facts. To limit the history text into 100 words.	A student recognizes the famous sights of London by the picture. The student knows the history of the object.	

Activity 4 Make a collection of group pages and share the collection with the class group.	A collection of pages posted in the class group page.		Inside your group create a collection of pages about your topics. Share the collection with your class group.	Review students goals and coach them for their strategies	Mahara		A collection of pages.	
Activity 5 Fill in My learning journal 5.-6.	My Learning journal is completed.		Evidence: Attach screenshots of your pages. Self-Evaluation What is the most valuable new knowledge you gained about the object that you didn't know before that study session?		Mahara			
Activity 6 Create a My learning page and share it with teacher.	Analyse the learning process.		Create a page about My learning Journal.	Monitor and support students activity Give feedback	Mahara	Individual	A page about My learning journal.	

LITHUANIA

Lithuanian language: Tales

I. GENERAL DESCRIPTION

Country	**Lithuania**
Author/Editor	Živilė Meškelienė
School	Vilnius Martynas Mažvydas Pre-gymnasium
Subject	**LITHUANIAN LANGUAGE**
LD Title	**Tales**
Year group	Lower Secondary
Duration	6 teaching periods
Short description	Lithuanian tales about the creation of the world, gods and mythical beings. Students create and record a radio show about their chosen mythical creature.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/tales

II. Learning Design Macro-level

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

8.8.5. The scope of literary education content
Lithuanian tales about the creation of the world, gods and mythical beings.
8.8.1. TRAINING ACHIEVEMENTS

- Speaks clearly, speaks aloud, right, at an appropriate pace.
- Is able to tell an event coherently, to describe an object, an animal, a place and a person, to explain a simple process, to think about read works. Properly uses stylistic and rhetorical means of linguistic expression.
- Narrates stories of a solid composition (tales) in a clear, coherent, rich language.
- Individually or through tips, find information for creating text in a library or on the Internet. Is able to select information (compare, evaluate), correctly indicates the source of information.
- Discusses Lithuanian cultural phenomena and the literary (cultural) context of the work: Lithuanian folklore - its peculiarity and value.

Tasks to develop these competences towards the learning outcomes

- Students listen to the radio show "Ryto rasa krito" ("Morning Dew dropped") and create a radio broadcast success criteria, according to which they will create their own program.
- Student groups read the subject text about a specific mythical being, re-create it into the text of the radio program (interview with the mythological researcher).
- Selects a few tales about a specific mythical being, learns to tell them.
- Collected information about the mythical being (sentences and the subject text) is organized, and the plan of the program is prepared.

Skills and competences necessary to reach the expected outcomes

Capabilities sought

Information Literacy / Digital Competence

Able to

- to use the search of the LRT library, to find and to listen to the required radio broadcast;
- to save information from multiple sources, specify metrics properly;
- to classify the collected material according to the research questions;
- to relate knowledge and accumulated information;

Municipal Learning Abilities

- to formulate the goal of learning, to define the criteria for the final result;
- to anticipate action steps;
- to keep track of the progress of the learning goal.

The skills acquired at the same time

Creativity and Innovations:

- to improve creative self-expression;

Communication and collaboration:

- to collaborate in a group of three: to allocate activities, to perform them timely, share feedback;
- to agree on a co-decision.

Leaning outputs – through all stages (assessment)

- A plan for the listened radio broadcast shall be made with questions, its purpose, the addressee, the main idea will be named; the five most important criteria for a good show will be named.
- Each student will write the purpose of their broadcast, the addressee, the questions in the e-portfolio, and will provide information collection and publication steps.
- Working together in the group, they shall create questions about the mythical being for the guest of the show, shall classify information for each answer (indicates sources) and find 3 correct sentences.
- The group shall record the radio show about a mythical creature.
- Every student shall write a reflection in the e-portfolio of each step on how to achieve the goal

Digital Tools (affordances)

- LRT music library
- Digital Library (http://ebiblioteka.mkp.emokykla.lt/)
- Learning path (e-portfolio)
- *Filmora Video Editor* (or other sound installation program)

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	**Transversal skills**						
1. Finding information in the LRT music library	- Discussing of Lithuanian folklore - its peculiarity and value. - Answering to questions from the text in their own words or using quotes; compiling a text content plan using questions, short wording, and key words.	**Information Literacy / Digital Competence** - To browse the LRT music library website and find the right show.	1. Task 1 The teacher recalls that aetiological tales have been started to be studied during the literary lessons. Students are asked during what calendar time people have been thinking about and are now considering the creation of the world, remembering and still recalling the tales about this. The address of the LRT music library is specified: http://lrvab.lrt.lt/ and several features of the program: Title - *"Ryto rasa krito" ("Morning Dew dropped"),* Approximate show time - *2016 January,* the key words of the show - *aetiological tales* or *creation of the world*. Students need to find a recording of the program. Task 1.2 The teacher indicates the exact extracts of the show. Students listen to the recording of the show perform the text comprehension task (download a Word document or the teachers gives a printed piece of paper).	To monitor and encourage students to test the widest range of show search paths. To organize the first listening of the show extracts for the whole class. To supervise how tasks are performed when the students listen to specific extracts individually for the second time.	http://lrvab.lrt.lt/ http://lrvab.lrt.lt/lt/archive/19724/	Students work in groups of 3. Everyone is trying different ways of searching, considering in the group, choosing the best, the most convenient. For the first time, students are all listening to the recording of the show and individually performing part I listening tasks. For the second time, students listen to the specific parts of the show as needed and reply to questions in Part II.	To try some ways of the search in LRT music library. The specific show is found. The questions have been answered, the listening tasks have been performed. The task document has been uploaded to the e-portfolio.	Formal self-assessment of competencies according to the assessment criteria

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
2. Designation of good performance criteria		**Self-government learning** - to formulate the learning goal; - to choose the ways and means of work - to schedule time and work phases; - to identify the criteria for the final result	Task 2.1 The teacher publishes a long-term assignment: *to create a radio show about the chosen mythical being (perk, devil, lament, deity, fairytale, witch).* The students identify the key words and concepts of the task, and they raise a number of questions for each of them, the tasks to be solved. The teacher writes the student's suggestions to the map of thoughts and at the same time demonstrates how to use the interactive planning tool. Task 2.2 Students are returned to the radio broadcast listening assignments. Based on the answers to the specified tasks, they distinguish the criteria for good performance. Provides the steps for creating the broadcast and portrays them on the map of thoughts.	Announces a task, helps students to make it more specific, visually captures students' suggestions, explains how the learning is planned using a map of thoughts. Listens to the good performance criteria offered by the students and after corrections makes a final agreement.	Planning tool: map of thoughts for class 5-6. http://www.ugdome.lt/kompetencijos5-8/Irankiai/Planavimas/Planavimas_5_6%20kl/index.html Listening task sheets or Word Document.	Conversation. Learning tool demonstration. Group work: each student individually writes 3 criteria. The group discusses the suggestions of all members and selects the best, most important criteria of the 5th show. Groups' suggestions are linked / listed in a single list.	The task has been examined, an example of a map of thoughts has been prepared. A map of thoughts with learning steps, radio broadcast criteria has been prepared. This material has been uploaded to e-portfolio.	Formal self-assessment of competencies according to the assessment criteria
3. Collection of information about the mythical being.	Searches information in the library or online for creating text independently or using tips. Are able to select	**Information Literacy / Digital Competence** (see section "Lithuanian language knowledge and skills")	Task 3.1 Students agree on the created show: - *theme* (what kind of mythical beast is told about to the audience?); - *the purpose* (why it will be told?); - *the content* (what will be told?) Task 3.2	Reminds the rules of the group discussion. Takes care that the discussions are cultured.	Sheet of group communication (patterns of sentences, questions).	Group work.	Radio show theme, purpose, plan to write in e-portfolio. Interactive text comprehension	

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
	information (compare, evaluate) correctly indicate the source of the information.	**Communication and co-operation.** (Task 3.1) - are actively listening; - criticize thoughts, suggestions, but not people; - talk and agree. (Task 3.3) - share the works; - ask for help, provide assistance; - everyone equally engage and participate.	http://lietuviu5-.mkp.emokykla.lt reads a subject text about the devil and performs interactive tasks (*Gimtieji namai. Skaitau. 1 rinkinys*). Task 3.3 In the Digital Library *Literatūros kūriniai 5-8 klasei* (Literature Works for Class 5-8) students find a set of tales "Sužeistas vėjas" ("Injured Wind"). Working together in the group, they read tales about a specific mythical being and, according to selected criteria, classify the information given in the stories about the mythical being.	The teacher explains that in carrying out tasks 1 and 2, the students classify, divide information about the mythical being, and perform tasks 3 and 4 to learn the generalization of information, to associate it. The teacher demonstrates how to manage the information provided in the tale using www.padlet.com.	http://lietuviu5-6.mkp.emokykla.lt http://ebiblioteka.mkp.emokykla.lt/kuriniai/suzeistas_vejas/ https://padlet.com	Individual work - reading and comprehension tasks. Self-organized group work at home (group members share stories and fill the common wall ("squat") about the mythical being.	tasks have been performed. The information about the mythical being has been systematized. https://padlet.com The schema has been photographed and uploaded to the e-portfolio.	
4. Narrating of tales	- Narrates stories of a solid composition (tales) in a clear, coherent, rich language.	**Communication and co-operation.** - are actively listening; - identify the successes and failures of other people, advice.	Task 4.1 http://lietuviu5-.mkp.emokykla.lt listens to the story "Apgauta ragana" ("The Deceived Witch") and performs interactive tasks (*Gimtieji namai. Klausau. 2 rinkinys*). Task 4.2 The students choose a tale about their group's mythical creature and learns to narrate their chosen tale. Every student using records the narrated tale.	The teacher draws the students' attention to the art of narrating a tale, the correct pronunciation, and the variety of intonations.	http://lietuviu5-.mkp.emokykla.lt	Individual work in an interactive learning environment. Individual work. Group work: each member comments the narration of the tale according to the criteria in the assessment table. The last word is the said by	The interactive listening tasks have been performed. The narrated tale has been recorded and loaded to the e-portfolio.	

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
			Task 4.3 The group listens the records and discusses the extracts of the tale and the way to narrate it better.			the narrator of the tale.	The tale narration table has been filled in the e-portfolio.	
5. Preparation of the radio show	- Speaks clearly, speaks aloud, right, at an appropriate pace. - Is able to tell an event coherently, to describe an object, an animal, a place and a person, to explain a simple process, to think about read works. Properly uses stylistic and rhetorical means of linguistic expression.	**Information Literacy:** - to relate knowledge and accumulated information; **Creativity and Innovations:** - to improve creative self-expression. **Communication and co-operation** - to participate equally and to become involved; - to share the works; - to inspire the group.	Task 5.1 The group is developing a plan for the show. Provides for the guests of the show, four questions to them, the introduction and the end of the show. Task 5.2 The radio show is recorded and mounted. Task 5.3 The radio shows are assessed: - comments from friends; - the group evaluates itself according to the scheduled show criteria; - teacher's assessment.	The teacher recalls that while planning the show it is important to review the purpose, the main idea, the statements recorded in the e-portfolio. To remember the paragraph summarizing the information. Encourages to assess the plan according to the criteria of the show. Evaluates the students' shows. Organizes the rating of the classroom friends.	*Filmora Video Editor* (or other sound mounting application) https://padlet.com	Group work: role-playing (presenter, guests), the plan is being created. Group work	The radio broadcasts has been recorded and uploaded to a common wall ("squat") of the class shows.	

IV. Material, resources and students' artefacts

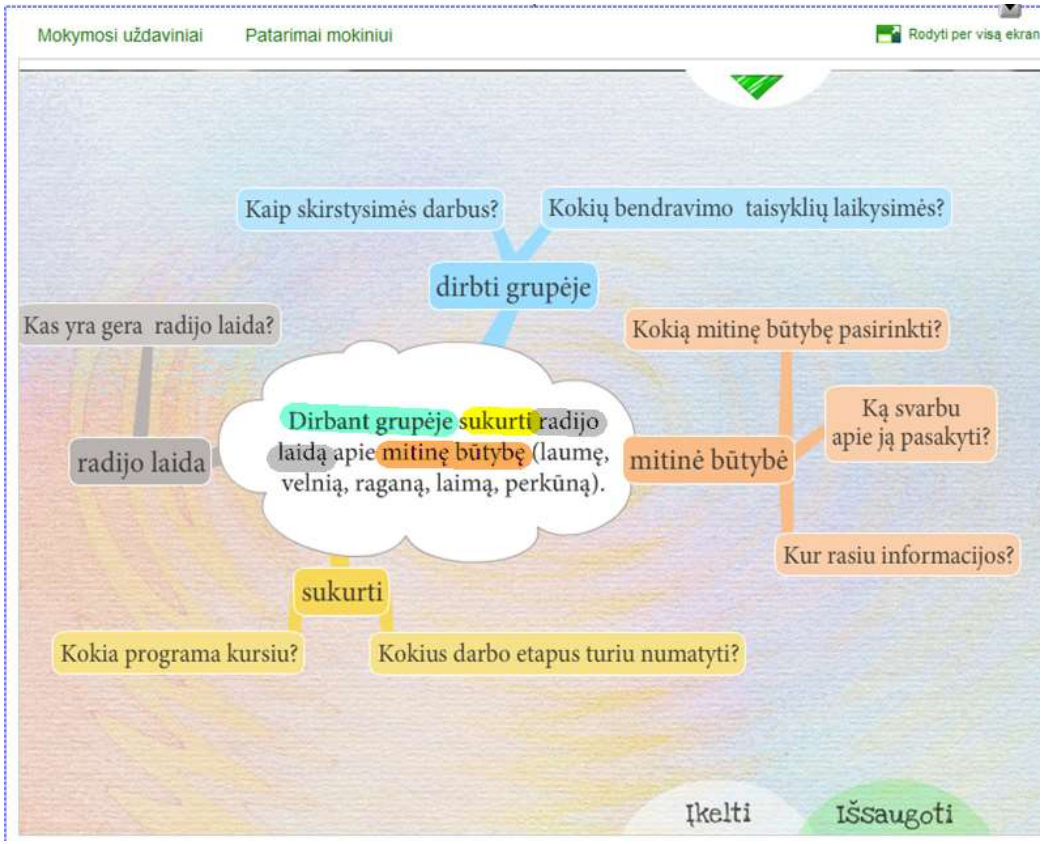
LISTENING SHEET

Listen to the excerpts from the radio show "Ryto rasa krito" ("Morning Dew dropped") and perform the tasks

Part I	**PART II**
1. How is the calendar time related with the tales about the creation of the world? 2. What kind of Christmas traditions are still alive today? 3. What world is depicted in the etymological legends of Lithuania before its creation? 4. Which story about the (self-) creation of the world from a duck egg did you like the most? Tell. 5. When and who did write the two tales? Why is the author of the show referring to the source of tales? 6. How does the author of the show summarize the implications of the tales narrated by Genovaitė Jukневičienė and Alfredas Mickus? Write her thought in your own words. 8. Listen to the summary of the show. Enter the missed words into the paragraph. *The world is renewing to the man of ancient cultures ... In every New Year, it regains the original holiness, which was characteristic to the ... passing of the hands. Year perceived as ... , having ... and ..., able to reborn in the form of New Year. With each New Year there was a new, holy, pure, yet untouched time. But the rebirth of time and the new start are possible because ...* 9. How do you evaluate the idea of the authors of the show to include not only aetiological tales but also folk songs into the story about the creation of the world? Explain your opinion.	10. Imagine being the author of the show you are listening to. What initial information should you have prepared before the creation of the show? Complete the description of the show. *Subject:* *Purpose:* *Content (show plan):* *INTRODUCTION. ...* *ENUNCIATION. 1. ...* *2. ...* *3. ...* *THE END. ...* *The main idea:** 11. What would you change or how would you improve the listened show? Why?

LEARNING PLANNING

Example of map of thoughts (http://www.ugdome.lt/kompetencijos5-8/Irankiai/Planavimas/Planavimas_5_6%20kl/index.html **)**



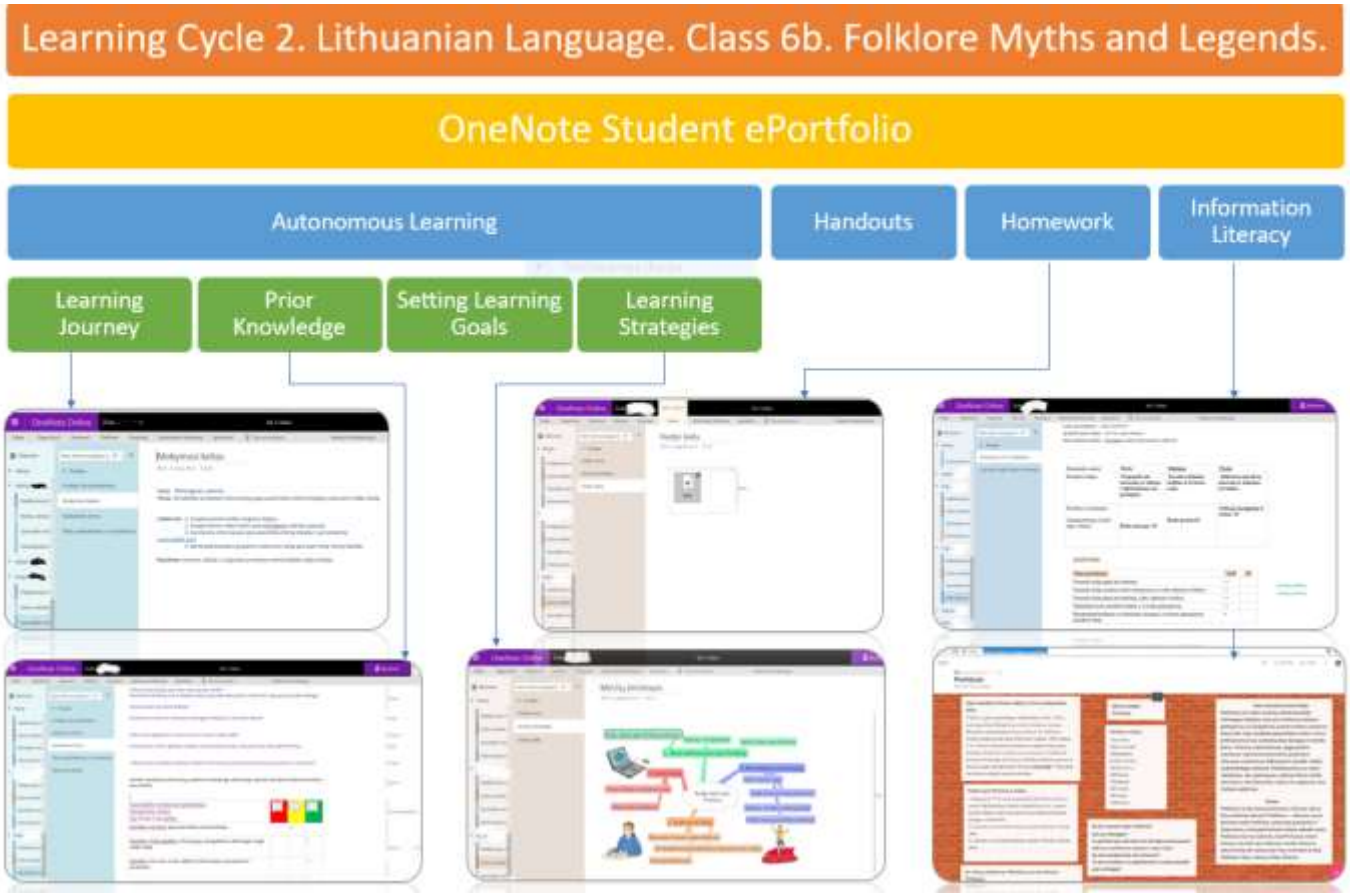
INFORMATION MANAGEMENT BY CO-OPERATION

An example of the scheme of the mythical being (https://padlet.com/zivile_meskeliene/v **)**

SELF-ASSESSMENT TABLES

Information Literacy / Digital Competence To find, analyse, systematise, evaluate, process and use ethically information from various sources: *Students use the site search.*		
Examples of students' achievements	YES	NO
Students find the show by title		
Students find the show by setting the category of the show and entering the keywords		
Students find the show by title, date, keyword		
Students test several search techniques and evaluate the most convenient		
Information Literacy / Digital Competence To find, analyse, systematise, evaluate, process and use ethically information from various sources: *Students are able to find the information they need and organize and apply it.*		
Students in the digital library find tales about the chosen mythical being		
Students learn the information about the mythical being when reading the tales		
Students provide criteria for the distribution of information (aspects of the discussion of the mythical being)		
Students divide information about mythical beings into the thematic groups		
Students indicate the source of information (title of the tale)		
Students distinguish the quotes correctly (with quotation marks)		
Students re-create the collected information into the text of another genre (interview of the show - 4 questions and answers)		
Students select and use examples of artistic texts (tales) to support the subject information.		
Students identify the relevance of the information / topic (in the introductory part of the show, it is explained why they talk about mythology)		
Students summarize the collected information in a paragraph (end of the show)		
Students use the online tool https://padlet.com		
Self-government learning / digital competence Describing learning objectives and developing learning strategies for them.		
Examples of students' achievements	YES	NO
Students distinguish the essential words and concepts of the task		
Students formulate exploratory questions		
Students provide sources of information		
The students agree on the criteria for the final result		
Students use an interactive map of thoughts		
Self-government learning / digital competence *Planning and managing activities for the implementation of a learning strategy.*		
Students distinguish learning steps and plan them in a row		
Students provide how they will learn / work in every step		
Students distribute a series of learning activities		
Students adjust their activity plan according to their needs		
After each stage, students examine the expediency of activities		

Exemplar ePortfolio



LITHUANIA

Lithuanian language: Repetition of spelling the nasal vowels in the root

I. GENERAL DESCRIPTION

Country	**Lithuania**
Author/Editor	Živilė Meškelienė
School	Vilnius Martynas Mažvydas Pre-gymnasium
Subject	**LITHUANIAN LANGUAGE**
LD Title	**Repetition of spelling the nasal vowels in the root**
Year group	10-13 years old
Duration	4 teaching periods
Short description	The electronic portfolio captures the learning path for spelling the nasal vowels in the root: pre-knowledge, personal needs, learning strategies, evidence of activity, self-assessment.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/lithuanian-language

II. Learning Design

Digital Tools (affordances)
- Electronic Portfolio (Microsoft One Note application)
- Learning Planning Tools (http://www.ugdome.lt/competencies5-8)
- Spelling dictation, exercises (http://ebiblioteka.mkp.emokykla.lt/)
- mounting application

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- 8^1.8.3. The scope of the content of the language system knowledge in the concenter of 5-6 grades
- The root is the main significant part of the words. Shift of root vowels in the related words.
- The nasal vowels are witnesses of language history. Spelling of the nasal vowels in the stem of words.
- 8^1.8.1. LEARNING ACHIEVEMENTS
- correctly pronounces and writes the root vowels;
- applies the rules of spelling of the nasal vowels in the root of words.

Tasks to develop these competences towards the learning outcomes

- To create an Office365 account, manage personal profile, get familiar with the applications.
- To discuss why it is important to set goals, plan the learning, explore examples of conversations between students and teachers, and choose practical tips on how to plan the activities and time.
- To create a learning path for spelling the nasal vowels in the root, describe it, and fill out using the Microsoft OneNote application.
- To explore the dictations of spelling the nasal vowels from trimester I, to upload their photos to the e-portfolio, to identify the main literacy gaps, to formulate personal learning needs.
- To provide and apply a strategy of improving literacy.
- To write a dictation of spelling the nasal vowels in the root and evaluate the progress made.

Leaning outputs – through all stages (assessment)

- The electronic portfolio captures the learning path for spelling the nasal vowels in the root: pre-knowledge, personal needs, learning strategies, evidence of activity, self-assessment.
- Selected, tested and evaluated learning strategy.
- Follow-up on spelling of the nasal vowels and self-assessment based on the collected dictations of words.
- The planning, monitoring and evaluation of spelling of the nasal vowels is assessed in the electronic portfolio.
- The progress of spelling the nasal vowels in the root is assessed (the results of the 1st and 3rd trimester are compared).

Skills and competences necessary to reach the expected outcomes

Targeted Skills:
Self-learning Abilities
Able to
- identify specific learning needs based on background knowledge;
- define the objectives pursued and develop a strategy for achieving them;
- plan and manage activities for implementation of the strategy;
- evaluate the process and results, present evidence of achievements;

Emerging skills
Information Literacy / Digital Competence
Able to
- combine existing knowledge and accumulated information;
- assess and collect the sources of information and tools based on their suitability for specific tasks.

III. Learning Design Micro-level

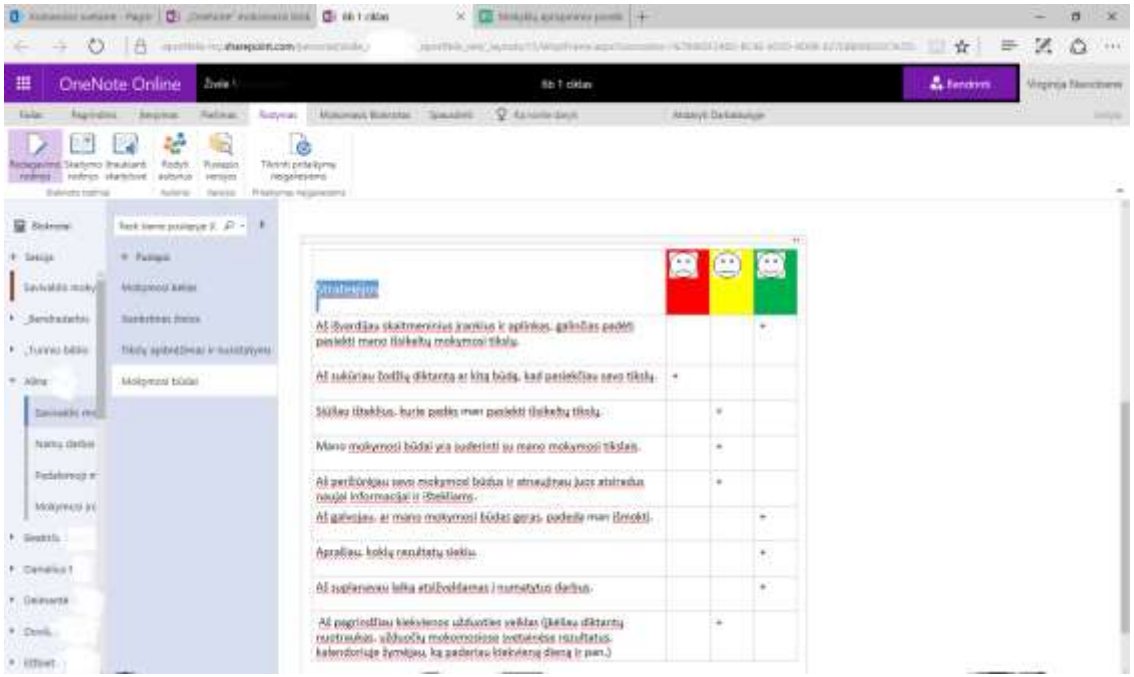
Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	**Transversal skills**					
1. Office365 account management	- Identifies the structural and graphic features of the text and uses them to quickly find information and understand it better.	**Information Literacy / Digital Competence** - Sign in to the Office365 system	1.1. Sign in to your personal account and change the temporary password to a permanent one 1.2. Create a personal profile. Briefly introduce yourself.	Explain the criteria of a safe password and password reminder methods Help students to find profile boxes, explain how to fill them out if necessary. Provide timely feedback on writing in Lithuanian.	https://login.microsoftonline.com/	Because students' digital competences are different, after completing the task, the more literate students are encouraged to walk in the class and consult friends. When the whole class completes a task, move to another task.	The account of Office365 is created and a personalized profile is arranged.
2. Discussing the meaning and ways of learning planning	- Understands the content and purpose of the texts being read.	**Self-learning** - Using the learning experience of other students, to find out how to improve own learning by properly planning work.	2.1. Read students and teachers conversations about learning, do text comprehension and analysis tasks. 2.2. Create a conversation between a student and a teacher about learning to spell the nasal vowels in the roots of words.	Initiate conversations in pairs. Lead the discussion of dialogues.	Planning tool: texts and tasks for grades 5-6. (1), (2) http://www.ugdome.lt/kompetencijos5-8/mmkvi/planavimo-irankis/	Individual work - reading and text comprehension tasks. Creative task in pairs.	Dialogues about learning planning have been explored. Personal learning planning difficulties and needs have been indicated in the created dialogues.
3. Creation of an e-portfolio in the Microsoft OneNote application	- Defines concepts: cause, consequence, purpose, fact, opinion.	**Information Literacy / Digital Competence** - Use the Microsoft	3.1 Examine the example of the learning folder; identify the purpose of each page, the purpose of	Deliver the learning folder; ask questions about the structure of the e-portfolio, the	Microsoft OneNote application	Demonstration of the learning tool (e-portfolio Microsoft	The e-portfolio created by each student.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
	- Knows how texts are created to express opinions, evaluate, and how - by communicating facts, informing.	OneNote learning folder **Self-learning** - Understand the essential skills of self-learning	the text in it, and the language features. 3.2 Discuss the intended learning path: identify its benefits, adjust the steps, and offer additional learning steps. 3.3. Manage the pages of the learning folder; download the required information from the *Content Library*.	nature of the texts, and the purpose. Encourage students' initiative to adjust the proposed learning path, to argue their ideas.	https://login.microsoftonline.com/	OneNote application). Discussion "Does the ability to write correctly depend on the ability to plan learning and track progress?"	Learning path for spelling the nasal vowels adjusted and approved by the classroom community.
4. Formulating personal literacy purposes and anticipating a learning strategy	- Adheres to the rules for spelling the nasal vowels in the root of words.	**Self-learning** - Identify specific learning needs based on background knowledge; - Define the objectives pursued and develop a strategy for achieving them.	4.1 Explore the dictations of spelling the nasal vowels from trimester I, to upload their photos to the e-portfolio, to identify the main literacy gaps. 4.2 Formulate personal learning goals. 4.3 Create a learning strategy for spelling of the nasal vowels in the root of words.	Individual consultations, timely feedback.	Microsoft OneNote application https://login.microsoftonline.com/	Individual work. The Fair of Learning Strategies.	Learning evidence (word dictations) uploaded to the e-portfolio, existing knowledge described, and learning objectives formulated. The self-assessment tables of self-learning are filled.
5. Independent literacy exercises, strategy implementation, monitoring, evaluation.	- Adheres to the rules for spelling the nasal vowels in the root of words.	**Information Literacy:** - Assess and collect learning sources and tools based on their	5.1 Execute the intended learning tasks. Evidences of learning activities uploaded to the e-portfolio.	The teacher monitors the records of the e-portfolio. He/she recommends students how to change learning	Microsoft OneNote application	Individual work	Educational evidence, assessment of learning activities

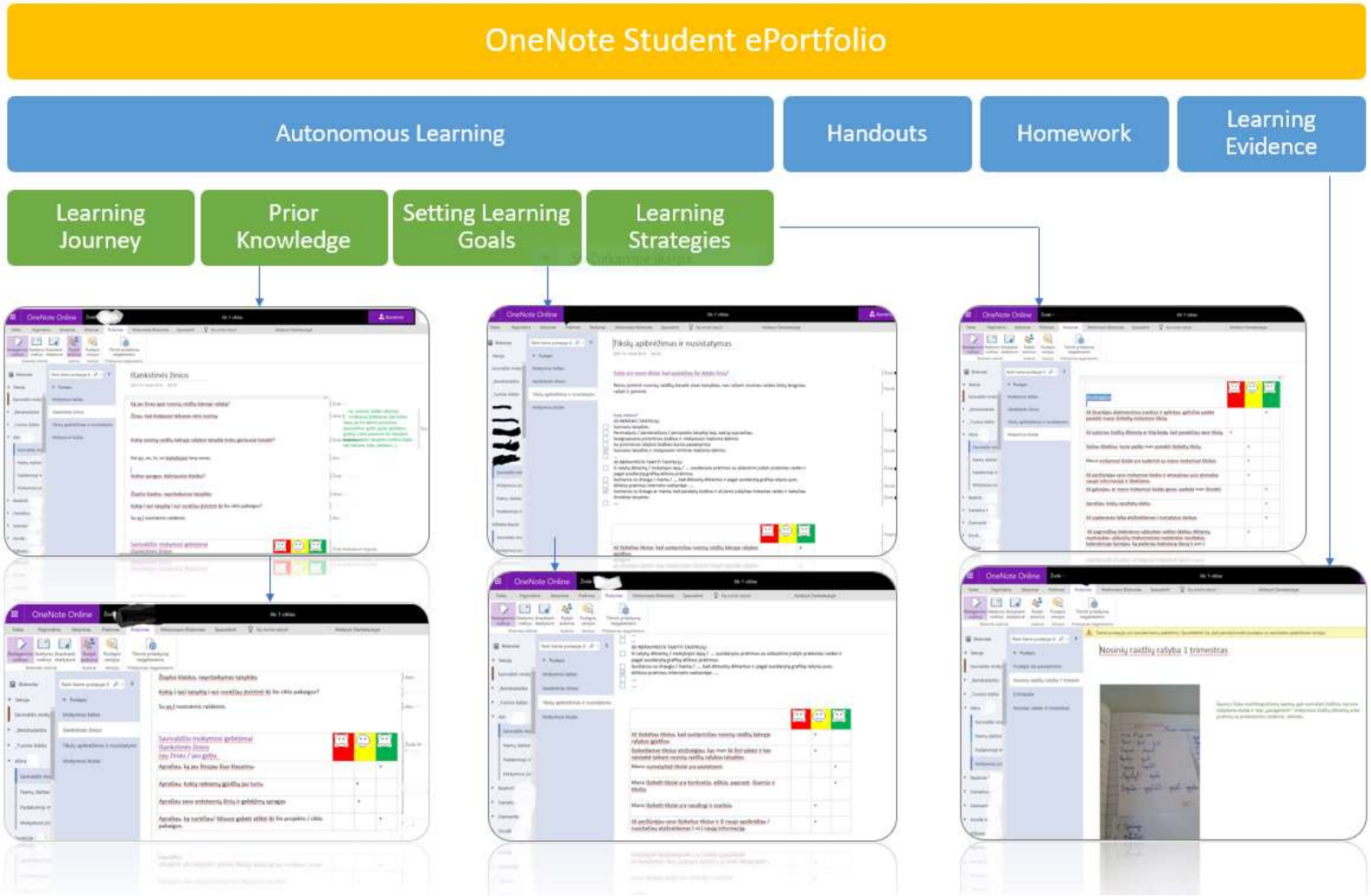
Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
		suitability for specific tasks. **Self-learning** - Plan and manage activities for implementation of the strategy; - Evaluate the process and results, present evidence of achievements.	5.2 Evaluate independent learning. Always write into the e-portfolio what tasks are more successful, what learning paths are foreseen, why and how should they be changed?	activities, provides other feedback.	https://login.microsoftonline.com/		uploaded to the e-portfolio.
6. Word dictation. Self-assessment of the learning cycle.	- Adheres to the rules for spelling the nasal vowels in the root of words.	**Self-learning** - Assess the learning process and results.	6.1. Write and evaluate the dictation of words 6.2. To substantiate the progress of literacy (compare the results of the 1st and 3rd trimester, the nature of spelling mistakes). 6.3. Evaluate the learning cycle: how useful it was.	Prepare the dictation of words and evaluation criteria.		Word dictation Individual work - reflection.	Evaluated literacy progress The specific advantages and disadvantages of the learning cycle (student questionnaire) specified

IV. Material, resources and students' artefacts

Students' artefacts. Autonomous Learning. Learning Strategy. Self-Assessment



Exemplar ePortfolio



SLOVENIA

History: World War I – Isonzo front

Kobarid Museum (Museum of World War I and Isonzo front in Kobarid)

I. GENERAL DESCRIPTION

Country	Slovenia
Author/Editor	Vilma Brodnik
School	National Education Institute Slovenia
Subject	**HISTORY**
LD Title	**World War I – Isonzo front**
Year group	General Upper Secondary School, 16–18 years
Duration	2–3 school hours
Short description	In the years 2014–2018, we commemorate the centenary of the end of World War I, which had great impact on Slovenes. On 24 May 1915, Italy declared war to the Austro-Hungarian Empire, in which the Slovenes lived at the time. The Italian military plan included the occupation of Trieste, the breakthrough towards Ljubljana and the occupation of major parts of the Slovene territory. Thus, a 600 km long battle line from Switzerland to the Adriatic Sea was established and it was divided into the Tyrol, Corinthian and Isonzo fronts. The southern part of the front, which was 90 km long, started at Rombon, ran along the Isonzo (Soča) River and it descended to the Timavo River in the Adriatic Sea. It was called the Isonzo front and represented the largest battlefield in Slovenia ever. In the learning design, we present the discussion of the Isonzo front in the general upper secondary school by integrating schoolwork with historical sources, ICT and the cooperative learning among students.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/wwi

II. Learning Design Macro-level

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Students understand the causes of World War I and the Isonzo front.
- Students describe twelve battles of the Isonzo and characteristics of a trench warfare.
- Students understand that it is important to preserve the memory of the Isonzo front with the main goal of maintaining peace and coexistence between the former warring nations.

Tasks to develop these competences towards the learning outcomes

- Students revise the causes of World War I and the formation of an antagonist Entente and Central Powers using an e-poster in the Glogster application.
- Students discuss the common learning goals, plan one con-tent/subject goal and one transversal skill goal in terms of com-mon goals and write them down in Mahara Learning Journal, where they also review the success criteria.
- Students search for information about twelve Isonzo battles on websites, solve tasks on the worksheet and upload the completed worksheet in Mahara.
- Students study excerpts from preserved war diaries. From war correspondents' point of view, they write a newspaper article on the life of soldiers at the Isonzo front and upload the file in Mahara.
- On websites, students search for information about life in Ljubljana during World War I. In Padlet, they write a postcard to relatives in the countryside asking them for help because they are starving.
- Students prepare virtual learning path in the GuidiGo application by means of collaborative learning.
- Students self-evaluate their knowledge of the Isonzo front in Mahara Learning Journal.

Digital Tools (affordances)

- Mahara Learning Journal
- Glogster
- Websites – resources about the Isonzo front
- Padlet
- GuidiGo

Skills and competences necessary to reach the expected outcomes

Targeted

- Inquiry based learning

Emerging

- Information literacy (history resources)
- Critical thinking
- Digital skills
- Autonomous learning
- Collaboration and communication

Leaning outputs – through all stages (assessment)

- Completed Mahara Learning Journal
- Completed worksheet
- A postcard about life in Ljubljana between World War I in Padlet
- A newspaper article about life of a soldier at the Isonzo front during World War I
- A virtual learning path on preserved monuments and places of the Isonzo front in application GuidiGo
- Peer feedback and self-evaluation

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	**Transversal skills**					
Activity 1: Identification of pre-knowledge by creating an e-poster and sharing it in Mahara Learning Journal	Causes of WWI, formation of Entente and Central Powers	*Autonomous learning* (determine the prior knowledge of the selected area) and *digital literacy* (create an e-poster, Mahara e-portfolio).	**Task 1:** Students revise the causes for the beginning of World War I and the formation of two opposing blocks – Entente and Central Powers that fought during World War I. The revision is individual. Students prepare a revision in a form of an e-poster (for example, in the Glogster application). An e-poster or its link is uploaded in Mahara Learning Journal. In addition to the learning and content goals, transversal skills are emphasised (information literacy, digital literacy, autonomous learning (learning based on prior knowledge)).	Explains the activity and gives instructions.	Glogster, Mahara Learning Journal	Plenary Individual work	Students' e-posters Completed task on prior knowledge in Mahara Learning Journal
Activity 2: Planning personal goals in Mahara Learning Journal		*Autonomous learning* (overview goals and success criteria, set personal goals of the subject – the Isonzo front).	**Task 2:** Students work in pairs and discuss subject goals and success criteria. Then students set themselves two personal goals (one subject goal and one transversal skill), they exchange and discuss them in pairs, then they upgrade them according to peer feedback and share them in Mahara Learning Journal.	Presents and discusses with students common subject goals and transversal skill goals, divides students into pairs, observes and helps students.	Mahara Learning Journal	Pair work Peer feedback	Personal student's goals and success criteria in Mahara Learning journal
Activity 3: Learning about the Isonzo front	Causes of the Isonzo front, twelve battles of the Isonzo (trench warfare, breakthrough the front at	*Information literacy* (analyse, evaluate, select, synthesize and ethically use information from historical sources	**Task 3.1:** Students work in pairs: they find out the causes for beginning of the Isonzo front (imperialistic politics of Great Powers, London pact and its meaning for Slovenes). They use relevant information from websites about imperialistic politics and London pact.	Supports, helps and monitors students.	A worksheet with tasks	Pair work Individual work	Fulfilled worksheets in Mahara Learning Journal, a newspaper article and a postcard in Padlet

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
	Kobarid), everyday life of ordinary soldiers at the Isonzo front, everyday life in Ljubljana during the war (citizens, refugees, war prisoners).	in different media; process information and construct new knowledge); *autonomous learning* (evaluate process and results, provide evidence of their achievement).	**Task 3.2:** Students work in pairs: they learn about twelve battles of the Isonzo and breakthrough of the front at Kobarid, use relevant information from websites about twelve battles of the Isonzo. **Task 3.3:** Students individually study and compare excerpts from preserved military diaries of soldiers from both sides (Austro-Hungarian and Italian) to describe everyday life of soldiers at the Isonzo front (position warfare (caverns, trenches), weapons, uniforms, diet, free time, contact with relatives), famous soldiers at the Isonzo front. Then they write a newspaper article from a war correspondent's point of view from the Isonzo front for the then Slovenian or Italian newspaper (for example for Slovenian newspaper Slovenec or Italian newspaper Il Popolo d'Italia). **Task 3.4:** Students individually study relevant information from websites about everyday life of citizens, refugees and war prisoners in Ljubljana during World War I. In Padlet, they write a postcard to relatives asking for help because of lack of supplies. **Task 3.5:** In pairs, students solve tasks on a worksheet. Individually they write newspaper articles and postcards in Padlet. Afterwards, they exchange newspaper articles and postcards and evaluate them according to success criteria. Then students improve their newspaper articles and		Websites about the Isonzo front War diaries of ordinary soldiers at the Isonzo front Mahara Learning Journal		

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
			postcards according to peer feedback. Students upload fulfilled worksheets, newspaper articles and link to the postcards in Padlet in Mahara Learning Journal.				
Activity 4: Creation of a virtual learning path of the Isonzo front		*Information literacy* (integrate new knowledge and apply it to new situations); *digital literacy* (a virtual learning path in application GuidiGo); *autonomous learning* (peer evaluation).	**Task 4:** Students are divided into groups of four students (five groups). Each group creates one virtual attraction of a virtual learning path in GuidiGo application. Each virtual attraction consists of a concentrated explanatory text of the attraction from one of the battles of the Isonzo. It presents what can a student nowadays see in the area (preserved monuments from the Isonzo front (caverns, trenches), cemetery, museum, outdoor museum etc.), includes pictures or photos of the attraction, the meaning of the attraction for preserving peace and cooperation between nowadays nations, who fought at the Isonzo front.	Supports, helps and monitors students.	Application GuidiGo Mahara Learning Journal	Group work	A virtual learning path in application GuidiGo and a link to a virtual learning path in Mahara Learning Journal
Activity 5: Self-evaluation with Traffic Lights (semaphore)		*Autonomous learning* (self-evaluate and reflect process of learning and results (evidence)).	**Task 5:** Students individually evaluate their learning and evidence of learning according to success criteria.	Supports, helps and monitors students. Gives students feedback according to their evidence of learning.	Traffic Lights Mahara Learning Journal	Individual work	Fulfilled Traffic Lights in Mahara Learning Journal A teacher evaluates students' evidences of learning according to success criteria

IV. Material, resources and students' artefacts

Appendix to Activity 1: Identification of pre-knowledge

Create an e-poster about the causes of World War I. Take into consideration:

1. Revise reasons that led to World War I (old and new Great Powers and their imperialistic politics, arms race (new weapons, a lot of money for armaments), efforts for a new division of the world).
2. Revise the formation of allied blocks, especially two greatest: Entente Cordiale and Central Powers.
3. Revise first turning points before the beginning of World War I (two Morocco crises, Balkan as a "barrel of arrowroot powder", Balkan wars).
4. Create an e-poster (in application Glogster or other). It should consist of key words, pictures and photos of the learning topic (causes of WWI, crisis before WWI, schematic presentation of Entente and Central Powers).
5. Share link of an e-poster or an e-poster in Mahara Learning Journal

Appendix to Activity 2: Individual learning plan according to common goals and information literacy

In pairs, overview the goals and success criteria of the topic – the Isonzo front.

The goals of the topic are: ⇨ I am learning to:

1. Explain causes for the beginning of the Isonzo front (great power of imperialistic politics (especially so-called Italian irredentism)).
2. Evaluate main points of London pact and their meaning for Slovenes.
3. Describe the course of eleven battles of the Isonzo and the breakthrough of the front at Kobarid – the twelfth battle (use a map of the Isonzo front).
4. Compare and explain everyday life of a soldier at the Isonzo front and write a newspaper article as a war correspondent from the Isonzo front for the then Slovenian newspaper (for example Slovenec) or the then Italian newspaper (for example Il Popolo d'Italia).
5. Explain everyday life in Ljubljana during World War I (life of citizens, refugees, war prisoners). In Padlet, write a postcard to relatives and ask them for help because of lack of supplies.
6. Create a virtual learning path in application GuidiGo to present preserved war monuments, museums and outdoor museums in the area of the Isonzo front.

The goals of information literacy are: ⇨ I am learning to:

1. Collect and extract key information and relevant details, facts and evidence from the sources in different media.
2. Search for answers, conclusions, interpretations.

3. Prepare opinions and justify them.
4. Prepare arguments (including arguments and evidence to support the statements).
5. Interpret events, phenomena, processes using multiple points of view (multi-perspectives).
6. Evaluate the credibility of information sources (e.g. following criteria: who is the author, the relationship between the facts, the evidence, the opinions, the presence of prejudices, stereotypes).
7. Know how to cite sources properly.

Plan two personal goals (one subject and one transversal skill goal), then exchange and discuss them in pair with your classmate. Afterwards upgrade your learning plan according to peer feedback and share it in Mahara Learning Journal.

Criteria for peer evaluation of a learning plan:

Criteria for peer evaluation of a learning plan:	**YES**	**PARTLY**	**NO**
1. Learning plan includes one individual goal according to the topic.			
2. Learning plan includes one individual transversal skill on information literacy.			
Schoolmate's recommendations to improve a learning plan: (Are individual subject and transversal skill goals ambitious enough?)			

Appendix to Activities 3.1, 3.2, 3.3, 3.4, 3.5: Worksheet

Task 3.1: Pair work: find out the causes for the beginning of the Isonzo front (imperialistic politics of Great Powers, London pact and its meaning for Slovenes). Use relevant information from websites about imperialistic politics and London pact.

(Recommended websites:

- *http://www.rtvslo.si/1sv, 24. 9. 2017.*
- *http://www.100letprve.si/, 24. 9. 2017.*
- *https://www.kobariski-muzej.si/, 24. 9. 2017.*
- *http://www.potmiru.si/, 24. 9. 2017.*
- *http://www.muzej-nz.si/?page_id=962, 24. 9. 2017.*
- *https://www.kamra.si/, 24. 9. 2017.*
- *You can use all other websites with relevant historical information about the topic.)*

Task 3.2: Pair work: learn about twelve battles of the Isonzo and breakthrough of the front at Kobarid, use relevant information from websites about the twelve battles of the Isonzo. Write the report on the course of battles using a map of the Isonzo front

A map of the Isonzo front (author: Vilma Brodnik, print: Kartografija, d. o. o.)

Task 3.3: Individually study and compare excerpts from preserved military diaries of soldiers from both sides (Austro-Hungarian and Italian) to describe everyday life of soldiers at the Isonzo front (position warfare (caverns, trenches), weapons, uniforms, diet, free time, and contact with relatives), famous soldiers at the Isonzo front. Then write a newspaper article from a war correspondent's point of view from the Isonzo front for the then Slovenian or Italian newspaper (for example for Slovenian newspaper Slovenec or Italian newspaper Il Popolo d'Italia).

(Recommended military diaries from school library:

- *Mlakar, Albin (1995). Dnevnik 1914–1918. Kobarid: Turistična agencija K. C. K.*
- *Triska, F. Jan (2000). Pozabljena fronta prve svetovne vojne: Iz vojakovega dnevnika s fronte ob Soči in Piavi 1916–1918. Celovec: Mohorjeva Celovec.*
- *Baratta, Michel (1989). La mia guerra: Ignorata dalla storia. Diario di un soldato sul Carso e in Serbia 1916–1919. Editore Moro.*
- *You can use any other preserved and printed military diaries.)*

Afterwards, exchange your newspaper article with schoolmates and evaluate them according to the success criteria. Then improve your newspaper article according to peer feedback.

Task 3.4: Individually study relevant information from websites about everyday life of citizens, refugees and war prisoners in Ljubljana during World War I, then write a postcard in Padlet to relatives asking for help because of lack of supplies.

(Recommended websites:

- *http://www.sistory.si/11686/2336, 24. 9. 2017.*
- *https://www.dlib.si/details/URN:NBN:SI:doc-T9I8N7H4, 24. 9. 2017.*
- *You can use any other websites with relevant historical information about the topic.)*

Exchange postcards with schoolmates and evaluate them according to success criteria, and then improve postcards according to peer feedback.

Task 3.5: Upload and share fulfilled worksheets, newspaper articles and links to postcards (created in Padlet) in Mahara Learning Journal.

Appendix to Activity 3.3: Success criteria for peer evaluation of a newspaper article about the Isonzo front

Criteria for peer evaluation of a newspaper article:	**YES**	**PARTLY**	**NO**
1. An article includes relevant historical information from military diaries (at least from two different diaries).			
2. An articles includes information on position warfare (caverns, trenches), weapons, uniforms, diet, free time, contact with relatives), famous soldiers etc.			
3. An article is written from the point of view of a Slovenian war correspondent from the Isonzo front – multiperspectivity.			
4. An article is written from the point of view of an Italian war correspondent from the Isonzo front – multiperspectivity.			
5. An article includes at last 150 words.			
Schoolmates' suggestions how to improve the article:			

Appendix to activity 3.4: Success criteria for peer evaluation of postcard from Ljubljana during World War I

Criteria for peer evaluation of a postcard:	**YES**	**PARTLY**	**NO**
1. A postcard includes relevant historical information to describe lack of supplies in Ljubljana during WWI.			
2. A postcard is written in the spirit of the time of WWI (language, situation in Ljubljana and Austro-Hungarian).			
3. A postcard is written in Padlet.			
Schoolmates' suggestions how to improve the postcard:			

Appendix to activity 4: A worksheet for a virtual learning path in GuidiGo

Students are divided into five groups of four students. Each group creates one virtual attraction of a virtual learning path in GuidiGo application. Each virtual attraction consists of:

*concentrated explanatory text of the attraction from one of the battles of the Isonzo,

*presentation what can a student and other people see nowadays in the area (preserved monuments from the Isonzo front (caverns, trenches, cemetery, museum, outdoor museum etc.),

*pictures or photos of the attraction,

*the meaning of the attraction for preserving peace and cooperation between nowadays nations, who fought at the Isonzo front (that such war will never happen again).

Appendix to activity 4: Success criteria for peer evaluation of a virtual learning path in GuidiGo

Criteria for peer evaluation of a virtual learning path:	**YES**	**PARTLY**	**NO**
1. A virtual attraction consists of a concentrated explanatory text of the attraction from one of the twelve battles of the Isonzo; it presents what can be seen nowadays in the area (preserved monuments from the Isonzo front (caverns, trenches, cemetery, museum, outdoor museum etc.).			
2. A virtual attraction includes pictures or photos of it (cite the resource properly).			
3. A virtual attraction presents its meaning for the present day life – preserving peace and cooperation between nowadays nations, who fought at the Isonzo front.			
Schoolmate's suggestions to improve virtual attractions:			

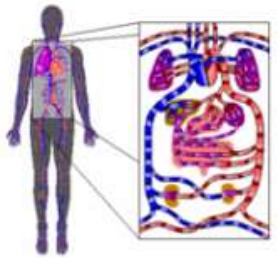
Appendix to activity 5: Self-evaluation with Traffic Lights

Success criteria to self-evaluate knowledge of the topic:				**Arguments, comments, notes:**
1. I can explain causes for the beginning of the Isonzo front (imperialistic politics of Great Powers (especially so-called Italian irredentism)).				
2. I can evaluate main points of London pact and their meaning for Slovenes.				
3. I can describe the course of eleven battles of the Isonzo and the breakthrough of front at Kobarid – the twelfth battle (use a map of the Isonzo front).				
4. I can compare and explain everyday life of a soldier at the Isonzo front and write a newspaper article as a war correspondent from the Isonzo front for the then Slovenian newspaper (for example Slovenec) or the then Italian newspaper (for example Il Popolo d'Italia).				
5. I can explain everyday life in Ljubljana during World War I (life of citizens, refugees, war prisoners).				
6. In Padlet, I can write a postcard to relatives asking them for help because of lack of supplies.				
7. I can create a virtual learning path in application GuidiGo to represent preserved war monuments, museums and outdoor museums in the area of the Isonzo front.				
8. My personal goal was:				
Teacher's feedback:				

Success criteria to self-evaluate information literacy skills (working with historical resources from different media):				**Arguments, comments, notes:**
1. I can collect and extract key information and relevant details, facts and evidence from sources from different media.				
2. I can search for answers, conclusions, interpretations.				
3. I can prepare opinions and justify them.				
4. I can prepare arguments (including arguments and evidence to support the statements).				
5. I can interpret events, phenomena, processes from multiple points of view (multiperspectivity).				
6. I can evaluate the credibility of information sources (e.g. follow criteria: who is the author, the relationship between the facts, the evidence, the opinions, the presence of prejudices, stereotypes).				
7. I know how to cite sources properly.				
8. My personal transversal skill was:				
Teacher's feedback:				

SLOVENIA

Science: Circulatory system – Transport systems – The functioning of the heart



I. GENERAL DESCRIPTION

Country	**Slovenia**
Author/Editor	Saša Kregar, Simona Slavič Kumer, Radovan Krajnc
School	National Education Institute Slovenia
Subject	**SCIENCE**
LD Title	**Circulatory system – Transport system – Heart functioning**
Year group	Primary School, Eight Grade (13–14 years)
Duration	3–5 school hours
Short description	Activities presented in the learning design support students' learning about circulatory system.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/heart

II. Learning Design Macro-level

Digital Tools (affordances)
- Mahara Learning Journal
- Google Forms
- Websites on heart functioning

Tasks to develop these competences towards the learning outcomes

- Students identify their pre-knowledge by means of a questionnaire.
- Students discuss learning intentions and success criteria and set up their personal learning goals.
- In groups, students plan the research process.
- They write their research plan in Mahara Learning Journal.
- Students give feedback to their peers regarding their research plans.
- Students carry out the research. They review theoretical background of the topic.
- They upload the report of the research in Mahara Learning Journal.

Skills and competences necessary to reach the expected outcomes

Targeted

- Inquiry based learning

Emerging

- Collaboration and communication
- Digital skills
- Information literacy
- Critical thinking
- Self-evaluation

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Students understand the role of blood and the purpose of the transport system.
- Student describe heart anatomy and physiology.
- Students understand the role of pulmonary and systemic circulation.

Leaning outputs – through all stages (assessment)

- Plan of the research
- Review of theoretical background
- The report of the research
- Peer feedback and self-evaluation

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	**Transversal skills**					
Activity 1: Solve the test Activity 2i: Fill in Mahara Learning Journal	Completion of the test.	Determination of prior knowledge on the selected skill.	Task 1: Students complete the test on circulatory system (a questionnaire in Google Forms). Task 2.1: Students check their answers and write a self-reflected report on their prior knowledge in Mahara Learning Journal. Task 2.2: Students fill in their Mahara Learning Journal – their prior knowledge on the selected transversal skill (inquiry based learning, cooperation, critical thinking and informatics literacy).	Gives instructions and explains the sequence of the activity.	Google Forms Mahara-Learning Journal	Plenary Individual work	Students' individual Mahara Learning Journals with identified prior knowledge on the subject and selected transversal skill.
Activity 2ii: Fill in Mahara Learning Journal		– Setting the subject and personal goals. – Co-creation of success criteria.	Task 3.1: Students work in groups and discuss subject goals. Students add personal goals and write them down in Mahara Learning Journal. Students write goals regarding the development of one transversal skill. Task 3.2: Students check the success criteria and improve them according to peers' proposals.	Divides students into groups and helps them (if needed).	Mahara Learning Journal	Group work Individual work	Individual students' goals and success criteria in Mahara Learning Journal.
Activity 4: Group planning of the research	Form 3 questions for each topic (blood, heart, pulmonary circulation, systemic circulation).	Define the strategy to achieve the goal. Plan the research and choose your role in the research. Review theoretical	Task 4.1: Students are divided into two types of groups: basic and expert groups. Task 4.2: Students in the basic groups plan the research. Each member chooses his/her role and a topic and writes down questions about the unknown facts. Task 4.3: Students move to the expert groups, review theoretical background of the topic chosen (blood, heart, pulmonary	Monitors and supports students' activities.	Mahara Learning Journal	Group work Individual work	Research plan and individual strategies to achieve personal goals.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
Activity 2iii: Fill in Mahara Learning Journal		background of the topic.	circulation, systemic circulation) and answer the questions of the basic groups. Task 4.4: Students go back to the basic groups and report the conclusions from the expert groups. They define a dependent variable relating to heart rate. The group prepares the research plan: what factors influence heart rate. Task 5.1: In Mahara Learning Journal, students write down strategies to achieve the subject goal and carry out the research plan. Task 5.2: In Mahara Learning Journal, students write down their strategies of developing one transversal skill.				
Activity 2iiii: Feedback on the research plan		Give feedback on the research plan.	Task 6.1: Students choose another basic group and mutually give feedback on their research plan with regard to success criteria of the research process.	Monitors and supports students' activity.	Mahara Learning Journal (Feedback)	Group work Individual work	Feedback on the research plan.
Activity 7: Improve the research plan, carry it out, gather data and present the findings	Improve the research plan. Carry out the research and gather data.		Task 7.1: Students improve the research plan by taking into account peers' feedback. Task 7.2: Students carry out the research and gather data. Task 7.3: Students process the data gathered and present the findings.	Monitors and supports students' activity. Organizes presentations.	Mahara Learning Journal Word Power Point	Group work Individual work	Carrying out the research. Gathering data. Presentation of the results and findings.
Activity 8: Write a report Activity 2iiiii: Self-evaluation	Publish the research report in Mahara.	Share the process of learning and self-evaluation of the research process.	Task 8.1: Students individually write the report and upload it in Mahara Learning Journal. They share the report with the teacher. Task 9.1: Students write self-evaluation of the research process and chosen transversal skill.	Teacher gives feedback on the report and self-evaluation. Teacher explains possible misconception and misinterpretation of the results.	Mahara Learning Journal (Files) Mahara Learning Journal (Feedback)	Individual work	Report. Self-evaluation. Teacher's feedback.

IV. Material, resources and students' artefacts

Assessment of pre-knowledge – a questionnaire

Read the following statements and mark if you agree or disagree with them.

1. Blood is a fluid that is not made out of cells.

- I agree
- I disagree

2. The heart is on the right side of the chest.

- I agree
- I disagree

3. The heart is built from muscle tissue.

- I agree
- I disagree

4. Blood brings food and oxygen to cells and takes up carbon dioxide.

- I agree
- I disagree

5. The heartbeat slows down during exercise.

- I agree

- I disagree

6. All animals have a heart.

- I agree
- I disagree

7. Blood gathers in the heart.

- I agree
- I disagree

8. All blood in the pulmonary circulation is oxygenated.

- I agree
- I disagree

9. We observe the influence of high temperature on human sweating.

Which hypothesis is correct?

- When it is hot, I sweat.
- Exercise increases sweating.
- Higher temperature increases sweating.

10. When I work in groups, I take the leading role.

- I agree
- I disagree

11. In groups, work is equally divided among all participants.

- I agree
- I disagree

12. While reviewing theoretical background in different sources, quotation is not necessary, if you use your own words while describing what you have read.

- I agree
- I disagree

13. The results of the research confirm my assumptions.

- I agree
- I disagree

WORKSHEET FOR STUDENTS:

Heart functioning – discussion about factors that influence human heart rate

Task 1: GOALS and SUCCESS CRITERIA

GOALS:

1. **With this research task you will find out and understand:**

- **the structure and functioning of the heart,**
- **the importance of the big and small vascular system,**
- **the structure and importance of blood cells,**
- **what factors influence heart rate.**

In Mahara Learning Journal, Heart functioning, note down subject goals and add your personal goals.

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2. **You will be developing the following skills:**

- researching (planning research steps),
- collaboration (engaging at tasks during group work),
- argumentation (developing opinion based on arguments),
- source referencing (citing of sources and their reliability).

Choose a skill on which you will focus during the course of research and write the goal in Mahara Learning Journal.

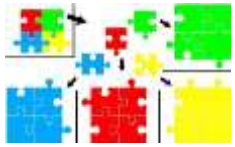
SUCCESS CRITERIA

1. Think about the above listed goals and form success criteria:

2. Review the success criteria for the chosen skill and select those that relate to the planned goals and activities.

Task 2: HOW WILL I ACHIEVE MY GOALS

A) **Group work.**



You will be working in two separate groups: basic and expert groups.

Group tasks

- In basic groups, you will assign roles and plan the research on factors that influence heart rate.
- In expert groups, each individual will prepare theoretical background of the topic chosen, and will present their findings to the peers in basic groups.

Step 1: Work in basic groups

Form a group of at least 4 members.

Form at least three questions for each topic that you want to research in your group. Each member of the team choses one topic and joins the expert group.

Topics:

a) blood
b) heart
c) big vascular system
d) small vascular system

Step 2: Work in expert groups

PREPARATION OF THEORETICAL BACKGROUND

By means of textbook and other sources (including online sources), find answers to the questions that were set in your basic group. Pay attention on appropriate citing of the sources and their reliability.

Write the answers in a Microsoft Word document and upload it in Mahara Learning Journal, Heart functioning – strategies.

Step 3: Work in basic groups

Each group member reports his/her findings to the others.

On the bases of the findings presented, think about the factors that influence on human heart rate.

Choose one factor and plan a research in which the influence of the factor chosen could be tested. While planning the research, help yourself with the instructions: Research planning steps.

In Mahara Learning Journal, Heart functioning – strategies, write down the research plan or upload the document.

Task 3: FEEDBACK ON RESEARCH PLAN

Giving feedback on research plans

Choose a basic group of classmates, present research plans to each other and give feedback on the research plans. In Mahara Learning Journal of the chosen basic group, write down the feedback.

Bear in mind that feedback on research plan should be based on arguments relating to success criteria.

Task 4: SUPPLEMENTING THE PLAN

Improve your research plan and its conduction.

In basic groups, revise and improve your research plan.

Carry out the research, gather data, analyse them and present them in the defined form (use Microsoft Word/Power Point).

Make a conclusion.

Task 5: REPORTING

Write down the report on the research in a Microsoft Word document and upload the file in Mahara Learning Journal, Heart functioning – evidence.

Share Mahara Learning Journal, Heart functioning, with your teacher.

In Mahara Learning Journal - Self-evaluation note down the following:

- Do the outcomes make sense?
- What could go wrong and what errors could occur in the course of research?
- If you had to do the research again, would you change anything and how would you carry it out?
- What did you learn from the research? What knowledge and skills did you gain?
- What questions occurred to you during the research?

SLOVENIA

Mathematics: Patterns with Olympic rings

Mathematics: Patterns with Olympic rings

I. GENERAL DESCRIPTION

Country	**Slovenia**
Author/Editor	Amela Sambolić Beganović and Jerneja Bone
School	National Education Institute Slovenia
Subject	**MATHEMATICS**
LD Title	**Patterns with Olympic rings**
Year group	12–14 years
Duration	180’ (4 school hours)
Short description	In the introductory activity, students individually think about the Olympic rings, the proper use of mathematical terminology and their prior knowledge of the patterns. Students study patterns in the form of 5 Olympic rings. After the activity, they individually write down their learning goals (personal, mathematical and goals in a relation to chosen transversal skills) and success criteria. Students present written goals and success criteria to each other in small groups. Its members give feedback to every student. If necessary, students improve or supplement their notes. In groups, every member presents his/her own research strategies, findings and outcomes. Afterwards, group members compare and evaluate different strategies/findings/outcomes of all members. Together they decide for the most appropriate research approach, write it down in some type of ICT presentation and present it to the other groups. Groups discuss different research processes and approaches, advantages and disadvantages, and compare their outcomes. At the end of the research, students do self-reflection and self-evaluation in accordance with their learning goals and success criteria. During the lessons on patterns, they fill in Mahara Learning Journal (My Learning Cycle).
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/patterns

II. Learning Design Macro-level

Digital Tools (affordances)
- Mahara Learning Journal – My Learning Cycle (all phases)
- Presentation (PPT, Prezi ...)
- Tables or spreadsheets

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Students identify pattern problem situation, define minor steps and then choose strategies of effective problem solving.
- Student form a research question of their research problem.
- Students discuss necessary and available data of the problem situation.
- Students observe and identify the rule of the pattern. Afterwards, they continue the pattern.
- Students make generalization of the topic and then write an algebraic expression.

Tasks to develop these competences towards the learning outcomes

- Students identify their prior knowledge in Mahara Learning Journal – My Learning Cycle – Prior knowledge:
  - Students find a photo of the Olympic rings and save it.
  - Students come across the naming "Olympic rings" in different texts about the Olympic Games and write down the answer to the following question: Is that mathematically correct?
  - Students use a photo of the Olympic rings as a starting point of researching patterns.
- Students write personal goals and success criteria in association with mathematical content (patterns) in Mahara Learning Journal – My Learning Cycle – Goals and success criteria (SC). Students present their goals and SC to the other group members and discuss about them. If necessary, students improve or supplement their goals and SC.
- In groups, students plan the research process and present the research plan in Mahara Learning Journal – My Learning Cycle – Strategies.
- Students carry out the research. They create different patterns with Olympic rings. They upload the research report in Mahara Learning Journal – My Learning Cycle – Evidence.
- Teacher gives feedback to students on their research – Mahara Learning Journal – My Learning Cycle – Feedback.
- Students write self-evaluation – How did I work? – Mahara Learning Journal – My Learning Cycle – Self-evaluation.

Skills and competences necessary to reach the expected outcomes

Targeted
- Work with others on a common task (collaboration skills)
- Plan, monitor, share their learning process (autonomous learning skills)
- Form success criteria and apply them on specific tasks (autonomous learning skills)
- Work with others on a common task (collaboration and communication skills)

Emerging
- Create an ePortfolio of their learning process (autonomous learning skills)
- Use digital technology to support the tasks (digital skills)

Leaning outputs – through all stages (assessment)

- Research plan
- Collected material – evidence
- The report of the research
- Teacher's feedback and self-evaluation

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	**Transversal skills**					
Activity 1: Introduction of the task. How can we create patterns with circles? **Activity 2:** Fill in Mahara Learning Journal – My Learning Cycle, section Prior knowledge.	- raising awareness of the proper use of mathematical terminology - raising awareness of students' knowledge on solving tasks with patterns - individual creation of a pattern - solving a mathematical task	- form a research question - plan a research - plan the learning process (autonomous learning skills) - use digital technology to support the tasks (digital skills)	**Task 1.1:** Students read a mathematical task and think about the proper use of mathematical terminology. **Task 2.1:** Students go to Mahara Learning Journal and write down their findings in My Learning Cycle, section Prior knowledge. **Task 1.3:** Students independently create a pattern, form a research question, plan a research and start researching. **Task 2.2:** Students make a photo of the pattern created and upload it in Mahara Learning Journal – My Learning Cycle, section Prior knowledge.	Prepares worksheets for students with a mathematical task. Prepares instructions and other activities in Mahara Learning Journal to support students' learning. Gives feedback to students about their research plan (task 1.3).	Circles made of rubber, metal, plastic … Paper/worksheets Mahara Learning Journal – My Learning Cycle, section Prior knowledge	Individual work	Students: - write down their findings, - create patterns, - plan a research. Students' Mahara Learning Journal – My learning Cycle, section Prior knowledge (findings and a photo of the pattern created).
Activity 3: How can we gain knowledge on patterns by setting learning goals and forming success criteria? **Activity 4:**	- set learning goals in relation to patterns - comply their own objectives with the teacher's objectives	- form personal learning goals - form success criteria for cooperation skills - use digital technology to support the tasks (digital skills)	**Task 3.1:** Students individually form: - personal learning goals, - learning goals in relation to patterns, - learning goals for cooperation/collaboration skills. **Task 3.2:** Students think how to achieve the goals and individually form success criteria.	Prepares a table template for learning goals and success criteria. Forms pairs/small groups for discussion on students' learning	Table template 1 *(see lesson appendix)* Mahara Learning Journal – My Learning Cycle, section Setting goals	Individual work Group discussion	Written personal goals Written learning goals in relation to patterns Written learning goals for cooperation skills

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
Fill in Mahara Learning Journal – My Learning Cycle, section Setting goals.			**Task 4.1:** Students go to Mahara Learning Journal, section Setting goals and write down their goals and success criteria. **Task 3.3:** Students work in small groups, every member of the group presents his/her learning goals and success criteria to the others. In a group, students discuss their learning goals and success criteria. In compliance with group discussion, peers and teacher's feedback, students supplement and improve their learning goals and success criteria. **Task 4.2:** Students go to Mahara Learning Journal, section Setting goals and supplement/improve their learning goals and success criteria.	goals and success criteria. Monitors and supports students' activity. Gives feedback.			Students' individual fulfilment of tasks in Mahara Learning Journal – My Learning Cycle, section Setting goals
Activity 5: Planning and presentation of the research. **Activity 6:** Fill in Mahara Learning Journal, My Learning Cycle,	- improve the research plan - present the research to schoolmates - compare and evaluate different research steps/plans - prepare presentation of the research	- plan the learning process (autonomous learning skills) -work with others on a common task (collaboration and communication skills) - use digital technology to	**Task 5.1:** Students individually think how to improve their work according to teacher's feedback on their original research plan (task 1.3). **Task 6.1:** Upload the supplemented or improved plan in Mahara Learning Journal – My Learning Cycle, section Evidence. **Task 5.2:** In pairs/small groups students present:	Connects students with similar patterns (task 1.3). Supports students during group activities.	Students use plastic, metal, rubber circles when creating patterns or use a computer programme GeoGebra. Different presentation format/solution	Individual work Group discussion Group work	Students individually fill in Mahara Learning Journal – My Learning Cycle, section Strategies Students individually upload files in Mahara Learning Journal – My Learning Cycle, section Evidence: - the updated research plan,

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
section Strategies and Evidence.	- discussion in small groups/pairs on advantages and disadvantages of various approaches to the research	support the tasks (digital skills)	- their research questions, - strategies of creating patterns, - how to solve the mathematical task. **Task 5.3:** Students compare and evaluate different approaches/outcomes. **Task 5.4:** Together (in pairs or groups) they choose: - a research question they will be able to solve, - strategies, - if it is necessary, thorough solutions, - the type of presentation. **Task 5.5:** Each group prepares a presentation. **Task 6.2:** Students go to Mahara: 1. to describe the process/research steps of their work (section Strategies) 2. to upload photos of the outcome (section Evidence).		(PPT, Prezi, poster …) Mahara Learning Journal – My Learning Cycle, sections Strategies, Evidence		- the presentation (paper, e-posters, report, photo of pattern …)
Activity 7: Class/group discussion on advantages and disadvantages of various research approaches		Use digital technology to support the tasks (digital skills)	**Task 7.1:** Two groups of students present their research work. **Task 7.2:** In groups, students discuss advantages and disadvantages of the research approaches presented and compare them with their own ones.	Chooses two presentations with a different research approach. Moderates, monitors and supports students' activity (group work).	A table of correlation (see table 2 lesson appendix) Mahara Learning Journal – My	Group work Plenary discussion	Students' uploaded a table of correlation in Mahara Learning Journal – My Learning Cycle, section Evidence

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
				Prepares a template for a table of correlation.	Learning Cycle, section Evidence		
Activity 8: Write feedback in Mahara Learning Journal – My Learning Cycle, section Feedback		- work with others on a common task (collaboration and communication skills) - use digital technology to support the tasks (digital skills)	**Task 8.1:** Students write feedback according to their learning goals and success criteria (to students or to the group).	Opens a forum in Mahara for discussion and feedback. Monitors forum discussion.	Mahara Learning Journal – discussion forum Mahara Learning Journal – My Learning Cycle, section Feedback	Individual work	Students post feedback Students fill in Mahara Learning Journal – My Learning Cycle, section Feedback
Activity 9: How did I work? – Fill in Mahara Learning Journal – My Learning Cycle, section Self-evaluation		- plan, monitor, share the learning process (autonomous learning skills) - use digital technology to support the tasks (digital skills)	**Task 9.1:** Students evaluate the achievement of their goals (subject, personal and goals related to transversal skills) in accordance with the success criteria. **Task 9.2:** Student evaluate their contribution to the group work. **Task 9.3:** Student highlight: - what they are proud of, - what they will improve regarding group work in the future. **Task 9.4:** Students describe possible difficulties that other students who will solve the same task (deal with the same problems/challenges) might have.	Prepares a questionnaire.	A questionnaire (see lesson appendix table 3)	Individual work	Students upload a questionnaire in Mahara Learning Journal – My Learning Cycle, section Self-evaluation

IV. Material, resources and students' artefacts

Table 1

Personal goals	Success criteria	How can I achieve them
Learning goals in relation to patterns	Success criteria	How can I achieve them
Learning goals for cooperation skills	Success criteria	How can I achieve them

Table 2

	advantages	disadvantages
Group A		
Group B		
Group C		
Our Group		

Table 3

	I know how	I need help
Create a pattern		
Form a research question		
Find appropriate strategies for problem solving		
Solve the problem		
Answer the research question		
Prepare a presentation		
Present the research process		

ATS2020 LD Appendix 2 – Assessment Tool – Success criteria of effective communication

Communication

				
ACCEPTANCE	I use different ways of communicating with students and a teacher (writing, talking, a friend-to-friend (F2F), online …).			
	I listen to others and accept their opinion.			
	I listen to opinions that are different from mine. I think about them. I do not interrupt my discussion partner.			
INTEGRATION	I can present arguments to support my statements.			
	I give constructive feedback.			
	I communicate with others by asking questions.			
	If I do not agree with my discussion partner, I try to be polite.			
	I am honest and straightforward while communicating with others.			

ATS2020 LD Appendix 2 – Assessment Tool – Success criteria of successful collaboration

Collaboration

				
ACCEPTANCE	I accept the ideas of others and merge them with the ideas of the group.			
	I am aware of the fact that every group member is important for the success of the group as a whole.			
	I change my opinion due to strong arguments from the other group members.			
INTEGRATION	I participate constructively during the group work. I express my views and listen to the others, even if we disagree.			
	In conflict situations, I solve the problems that emerge during negotiations.			
	When I cooperate with others, I believe that every member must contribute an equal part.			
	I am aware of the importance of the well-being of all group members.			
	I take responsibility for the consequences of my actions during group work.			

ATS2020 LD Appendix 2 – Assessment Tool – Self-evaluation – How did I work?

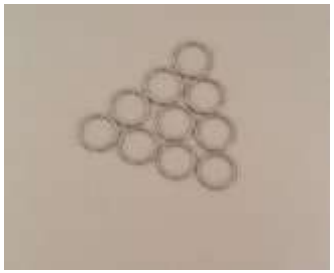
Look at your research work and fill in the spreadsheet. Read the following statements and put a tick in the column if you know how to do the activity or if you need any help. Write precisely what kind of help would you need.

	I know	I need help
Design a pattern.		
Form a research question.		
Choose appropriate solving strategies.		
Solve the problem/answer the question.		
Present your research work.		

Evaluate your work in a group. Evaluation should be based on set learning goals and success criteria for collaboration skills.

Highlight one of the successful elements of the learning process and what will your improve regarding group work in the future.

Please predict eventual problems or challenges of the task on the Olympic rings pattern.



SPAIN

History: The Romanesque through the Road to Santiago

I. GENERAL DESCRIPTION

Country	**Spain**
Author/Editor	María Pazos and Milagros Trigo
School	CPI PLurilingüe O Cruce
Subject	**HISTORY**
LD Title	**The Romanesque through the Road to Santiago**
Year group	12-15 years old, Lower Secondary
Duration	6 Hours
Short description	Students in this unit learn about Romanesque style: architecture, sculpture, and painting. They identify the main elements in Romanesque style, use the concepts introduced in the theme in the properly way (definitions) and refer to main Romanesque buildings/sculptures/paintings. In addition, they implement the knowledge about the Road to Santiago and the culture that was built around it and create a Website integrating their findings and knowledge.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/Romanesque

II. Learning Design Macro-level

Digital Tools (affordances)
- e-portfolio/ Rubric
- Video and or any web format
- Padlet
- WordPress

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- To identify the main elements in Romanesque style: architecture, sculpture, painting.
- To use the concepts introduced in the theme in the properly way.
- Refer to main Romanesque buildings/sculptures/paintings.
- To implement the knowledge about the Road to Santiago and the culture that was built round it.
- Create a Website integrating the information about Romanesque characteristics.

Tasks to develop these competences towards the learning outcomes

- Learn all about the Romanesque style, main buildings...
- Search and select information about the Romanesque
- Identify the main elements of Romanesque architecture
- Collect main Romanesque sculptures / paintings
- Create a virtual gallery of main Romanesque buildings in the Road to Santiago
- Choose a sculpture from the Road to Santiago and make a guided visit to it. (use your creativity to present it)
- Group assessment using the white board
- Create websites
- Use e-portfolio for assessment

Leaning outputs – through all stages (assessment)

- Definitions of the main elements in Romanesque style: architecture, sculpture, painting.
- A number of digital recordings describing different Romanesque buildings
- Work collaboratively in order to produce information about the Romanesque and the Road to Santiago
- Different websites created by students to formally present their findings.
- Be able to express what the group have learnt through web format. Different websites.
- E-portfolio/ rubric, and my learning for assessment and group assessment

Skills and competences necessary to reach the expected outcomes

Targeted
- Think carefully and use the skills and knowledge I already have.
- The Romanesque its meaning, origin and area of influence
- The architecture, sculpture and painting in Romanesque style, characteristic elements and its functions
- The Romanesque in the Road to Santiago

Emerging
- Be open and responsive to new and diverse perspectives
- Learn with and from others (teamwork)
- Managing your feelings about learning and the people you learn with.
- Communicating your knowledge through different formats
- Use ICT, do research work and to communicate your knowledge.
- Create and manage the ePortfolio

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
In groups of four students explore the website and identify the main elements in Romanesque style: architecture, sculpture, and painting. Groups share opinions through Padlet in order to reach the definitions	Identify the main characteristics of the Romanesque: architecture, sculpture, painting	– Collaborative learning – Creativity – Learning to learn – ICT	In groups explore the website Identify the main elements in Romanesque style: architecture, sculpture, and painting. Share opinions through Padlet	Provide students the website http://centros.edu.xunta.es/cpiocruce/materiales/2arteenglish/index.html Divide the class in groups Ask students to produce a definition of the Romanesque: architecture, sculpture, and painting. Provide students a Rubric for self-assessment	Personal computer Padlet	-Teacher uses learner' centred approaches -Learning by doing -Students learn through exploring information and feedback that comes from activity results	Definitions of the main elements in Romanesque style: architecture, sculpture, painting.
Search and collect main Romanesque buildings Role-play: you are a guide and you have to describe the building to visitors. It can be recorded by each member of the group and save it as podcast. Students upload it in the personal e-portfolio	Identify the main Romanesque buildings	Communicate the others his/her knowledge about Romanesque	Search and collect main Romanesque buildings In groups describe the building to visitors. Record the presentation of the visit by each member of the group and save it as podcast	Ask students to choose one Romanesque building. Ask students to prepare a role-play where students have to act as guide in a visit to a Romanesque building. Optional: suggest students to record the visit.	Personal computer Padlet IPad	Learning by doing.	A number of digital recordings describing different Romanesque buildings

Search for information and stablish the relationship between Romanesque and the "Road to Santiago" In groups create a website to formally present your findings	To stablish links between the "Road to Santiago" and Romanesque	- Team work - Creativity - ICT	In groups identify the links between Romanesque and "Road to Santiago" Produce a website about the Romanesque and the "Road to Santiago"	Ask students to identify the links among " Road to Santiago" and Romanesque Ask students to produce a website about the "Road to Santiago and Romanesque" Support students activities	Personal computer WordPress	Learner' centred approaches Learning by doing Students collaborate on end-of –project presentations/ products to formally present their findings	Different websites created by students to formally present their findings.
Write the on the white board the criteria to assess the websites One group assess other group work including comments	Students reflect on the products presented to formally communicate their findings	- Creativity - ICT - Teamwork - Communication	Get an agreement for the whole class to assess the Website Put them all together in the whiteboard Produce a document about other group work Students fill in the Rubric.	Collaborate with the groups and with the class to select the criteria for assessment Provide feedback to students: about group assessment and the rubric	Personal computer Padlet Whiteboard	Learning from feedback and implementing critical thinking	Documents assessing other group works produced by students groups Assessment evidences

SPAIN

English as a Foreign Language: Family names

English as a Foreign Language: Family names

I. GENERAL DESCRIPTION

Country	**Spain**
Author/Editor	Milagros Trigo
School	CPI Plurilingüe O Ceuce
Subject	**ENGLISH AS A FOREIGN LANGUAGE**
LD Title	**Family Names**
Year group	Secondary School, first year
Duration	6 lessons
Short description	Students in this lesson make a presentation using the Simpson family, to learn the Saxon genitive. Every student talks about his/her family. Students read and represent the tale “The enormous turnip” and write very simple sentences. Students in pairs talk about their families and the British Royal family. In addition, students in pairs produce the text and they create the scenario to produce a dialogue using Puppetpals and then present their works to the class (video).
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/family-names

II. Learning Design Macro-level

Digital Tools (affordances)
- Personal computer
- IPad
- Puppetpas2
- whiteboard

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Listen and understand general and specific oral communication in different situations, adopting an attitude of respect and cooperation with the speaker.
- Communicate orally in everyday life situations with some level of autonomy.
- Read and understand different texts of appropriate level according to the abilities and interests of students in order to extract general and specific information and use reading as a source of pleasure and personal enrichment.
- Write simple texts for various purposes on different topics using appropriate resources with cohesion and coherence.
- Use effectively the phonetic, lexical, and functional, structural basic components of the foreign language in real communication contexts.
- Show a receptive professional attitude and self-confidence in one's ability to learn and use a foreign language.

Tasks to develop these competences towards the learning outcomes

- Make a presentation using the Simpson family, to learn the Saxon genitive
- Every student talks about his/her family (in this session we work with the class group)
- Students read and represent the tale "The enormous turnip" and write very simple sentences.
- Students in pair talk about their families and the British Royal family, also with the class
- Students in pairs produce the text and they create the scenario to produce a dialogue using Puppetpals and they present their works to the class (video).

Leaning outputs – through all stages (assessment)

- Presentations to teach Saxon genitive and vocabulary related to family.
- Videos with tale performances
- A contest to practice foreign languages
- Videos made with Puppetpals about famous people and family
- Assessment criteria
- Comments on different videos
- Assess the regularity and consistency of daily work
- Peer assessment (group) using white board
- self-assessment
- E-portfolio

Skills and competences necessary to reach the expected outcomes

Targeted
- Understand and express ideas
- Understand and express feelings and needs
- Use various forms of discourse in communication
- Learn to speak and interact in different languages
- Reflect on a general language learning through the comparison between the different languages that the student learn.
- Be able to do a good expressive reading, understand what they read and enjoy reading
- Select and evaluate the information obtained
- Write different types of texts
- Transform information into knowledge
- Creation of communicative contexts:
- Videos, chats, forums, email, blogs, etc.

Emerging
- Conscious use of learning skill
- Use of foreign language as an instrument of universal information access
- Collect, present and interpret information about life situations
- Promote social positive attitudes such as cooperation through shared work (cooperative work)
- Know and use basic programs (Puppetpals)
- To acquire skills to develop themselves own intellectual abilities
- Analyse and evaluate the errors in the process of personal learning
- Analyse other group activities
- Learn from feedback

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
– A little talk about family names students learn the family names using Saxon genitive – Students in groups make a presentation about the Simpsons using the Saxon genitive A Student asks and the other answers	– Get knowledge about the Saxon genitive – Get to know vocabulary: family	- Creativity - Learning to learn - ICT - Communication	– Students prepare a Power Point presentation with family names and Saxon Genitive. – A student leads the activity and other students answer the questions	– The teacher conducts the learning process. – The teacher makes possible students learn by doing – The e teacher streamlines oral practice Assess the regularity and consistency of daily work	– Personal computer Power point/Prezi	– Learners centred approaches – Active learning Teamwork	– Oral activities using the white board Presentations to teach Saxon genitive and vocabulary related to family.
The tale "The enormous turnip" Students collaboratively tell the tale with the support of the whiteboard	Students should be able to understand the main idea of a tale and be able to perform it together with other group members	- Communication	– Read the tale – Perform the tale with the group members A member of the group records the performance with the iPad	– The teacher promotes students' active role in working the tale. The teacher presents didactic proposal and supports student with oral language	IPad	Proactive learning	– Memory and oral practical activities. Videos with tale performances
– Each student chooses a Royal family member and writes about him or her – Students with their personal computer write about one of the royal family members,	Students should know about: – The British Royal Family and the vocabulary round it – Students should be able	- Communication - Creativity - The error as element of the learning process	Students write descriptions of a member of the B. Royal Family (they choose a paper to see the person) Contest: Students have to identify member of	– Teacher provides the names of Royal Family members for students choose. – The teacher moderates the contest and makes students reflect on groups work	e-portfolio	Learning by doing learning from feedback	A contest to practice foreign languages

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)
	Subject area	Transversal skills					
they can search for information if needed. Students read their description and the class group tries to guess who it is	to express ideas using simple sentences		the Royal Family described by other group member Each student makes a self-assessment	Teacher provides questions for self - learning assessment			
Make a video using iPads with family names – Students write a dialogue and produce a video using puppetpals2. – They have to practice the dialogue and when it is ready they build the scenario and record the sound	Students should know how to – produce a text and transform it in a video using Puppetpals – Use family vocabulary	- ICT - Creativity	– Students have to choose a personality/celebrity to write a dialogue. and produce a video – Students practice the dialogue. – Students create a scenario and record the conversation between two personalities. – Students record and save the video	– Ask students to write a dialogue with a famous person or celebrity, using family names. – Provide students with the assessment criteria and discuss them with students. – Review the students' tests and oral practice. – Support students' activities. – Review the final product	– *i*Pad Puppetpals	– Proactive learning Use all knowledge to produce a final product	Videos made with puppetpals about famous people and family
– Students in pairs present their videos – A group of four students asses them. One student writes the comments and reads it for the class – E-Portfolio development. – Individual pages	- Present their works in foreign language	implement critical thinking and reflection on own learning	– Agreement on assessment criteria and write them in the blackboard – Each pair using Apple TV presents their video Other pair comments the video and assesses it.	– The teacher proposes the videos assessment – Collaborates in fix assessment criteria	– iPads Apple TV	– Learning from feed-back Reflection on own learning process	– Assessment criteria Comments on different videos

SPAIN

English/Spanish Galician Language: Book trailer- Video story telling

I. GENERAL DESCRIPTION

Country	**Spain**
Author/Editor	Milagros Trigo
School	CPI Plurilingüe O Cruce
Subject	**ENGLISH/SPANISH GALICIAN LANGUAGE**
LD Title	**Book trailer- Video story telling**
Year group	10-16 years old
Duration	six hours
Short description	The creation of Book trailers and Video storytelling, is a co- constructed learning opportunity where teachers and students are engaged in an open, ongoing, constructive dialogue, developing competencies, creativity and new skills. Every part of the teaching and learning process stimulates a cultural growth and ethical conscience, and allows the students to compare results and products for a constructive working outcome. Digital storytelling is a good tool to approach any curricular topic, enhancing the cross-curricular, digital and language competences. Children get involved in the stories and become familiar with the plot by listening, acting, feeling the story and re-creating it by using multiple techniques. The narration stimulates positive attitudes towards foreign language, which is perceived as a real and complete experience. The book trailer is a handy tool easy to use and to be implemented: it has a short-term, immediate impact. The plot of the book is made appealing and attractive with the use of the movie trailer model. The book trailer stimulates creative thinking and digital skills.
Hosted (URL)	Lesson: https://mahara.ats2020.eu/view/view.php?id=13722 Learning Design: https://resources.ats2020.eu/resource-details/LEDE/Video_story_telling

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- My Learning (Journals)
- Personal computer
- IPad

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Be able to read few books and in groups of four select one
- Be able to read/share and the text in a way appropriate to the age/ability of students
- Be able to identify which parts of the book will be effective in a book trailer; produce a storyboard for the book trailer
- Be able to process information and build new one
- Learn to create a script for our video
- Get to know which tools to use for creating our book trailer
- Learn to enjoy reading and cinema in foreign language.

Tasks to develop these competences towards the learning outcomes

- Main steps and decisions:
- how you want your video to represent your book?; tools to be used, narration, sound effects, music, editing the final product, Publish your final product, making reference to your book
- Creating a script for our video
- Collecting different materials for our book trailer
- Getting familiar with different video editing tools:
- Movie Maker
- IMovie
- Chroma
- Slow motion shutting, Time lapse
- YouTube

Leaning outputs – through all stages (assessment)

- Enjoy reading
- Make plans about own learning
- Book trailers with different ICT tools
- Comment different book trailers
- Assess the regularity and consistency of daily work
- Peer assessment (group) using white board
- self-assessment
- E-portfolio

Skills and competences necessary to reach the expected outcomes

Targeted
- Understand and express ideas
- Be able to do a good expressive reading, understand what they read and enjoy reading
- Use various forms of discourse in communication
- Learn to speak and interact in different languages
- Process information and build new knowledge
- Write different types of texts
- Creation of communicative contexts:
- Videos,

Emerging
- Conscious use of learning skills
- Use of foreign language as an instrument of universal information access
- Collect, present and interpret information about different situation
- Promote social positive attitudes such as cooperation through shared work (cooperative work)
- Know and use basic ICT programs (Puppetpals)
- To acquire skills to develop themselves own intellectual abilities
- Analyse and evaluate the errors in the process of personal learning
- Analyse other group activities
- Learn from feedback

III. Learning Design Micro-level

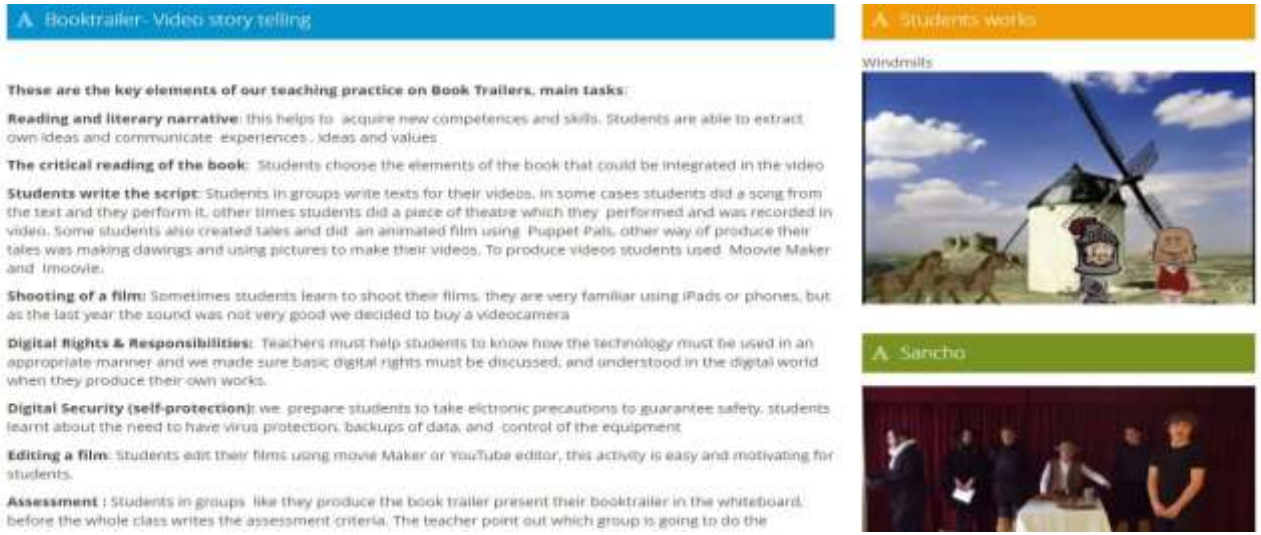
Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
Activity 1: Critical reading of a Book	Get knowledge about Spanish literature Develop in students the pleasure of enjoying reading	Critical thinking Reading literacy Team work Autonomous learning	Students read story individually and for the whole class/group Students in teams draw up the storyboard on the book trailer	The teacher guides the students	Books	Learning by doing	- Enjoy reading - Make plans about own learning	- Monitoring sheets; - Inter-appreciation of the works and interpretation
2: Create the script and the scenario	Use various forms of discourse in communication Process information and build new knowledge. Students in teams draw up the storyboard on the book trailer	- Collect, present and interpret information about different situations - Promote social positive attitudes such as cooperation through shared work (cooperative work) - Creativity	children themselves choose elements of the book that impressed them and which can be integrated into the book trailer scenario They decide which contents they are going to include in the book trailer	The teacher guides students	Personal computers Books	Engagement, exploration, explanation, elaboration and assessment	The script and the scenario for the book trailer	Rubric
3The shooting of a film Using /puppet pals to do short animations	Learn to use multimedia to tell stories and to transfer a book into a video Video, Puppet pals	- ICT literacy - Digital Rights and Digital literacy	Students shoot their videos or make small animations using Papperpals	teacher guides students	Camera, mobile, IPad	Learning by doing	become familiar with aspects like depth of field, frame rate, framing, lighting, colour, camera movement and green screen technology etc.	Observation sheets

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
4. Editing videos...	Digital competences	- ICT literacy Creativity	students and teachers work side by side producing the video	As guide	Computers	Learning by doing	a book trailer	observation sheet
5.Presenting their book trailers	enjoying reading Communicate using audio-visual resources	Communication skills	Students in groups present their videos. Other group assess them according to agreed criteria	observe	computer and projector Apple TV	Learning by doing	Plenary discussion	Peer assessment

English/Spanish Galician Language: Book trailer- Video story telling

IV. Material, resources and students' artefacts

Lesson Screenshot

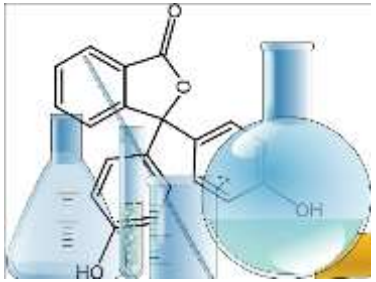


Students' works: https://www.youtube.com/watch?v=d3FPE5CDUnE&feature=youtu.be

Material/resources for Learning Design					
		Description	**Type**	**File name / URL**	**Language**
Material to support tasks and activities (Description of tasks/activities, rubrics, worksheets, etc.)		Steps to create a book trailer	pdf	http://www.edu.xunta.gal/centros/cpicruce/system/files/Keyelements.pdf	English
		Rubric	pdf	http://www.edu.xunta.gal/centros/cpicruce/system/files/Rubric.pdf	English
Students' artefacts (Products, ePortfolios, etc.)		1.	Video	https://www.youtube.com/watch?v=OmI4YlB1aOY	English
		2.	Video	https://www.youtube.com/watch?v=2Vs9f60EpyM	English
		3.	Video	https://www.youtube.com/watch?v=d3FPE5CDUnE&feature=youtu.be	English
		Students doing a Book trailer	Photo	http://www.edu.xunta.gal/centros/cpicruce/system/files/stopmotion.jpg	
Implementation photos/videos (as evidence of the learning taking place)		Students talking about a book at the library	photo	http://www.edu.xunta.gal/centros/cpicruce/system/files/biblio.JPG	n/a

SPAIN

Chemistry and Physics: Chemical Bonding



I. GENERAL DESCRIPTION

Country	**Spain**
Author/Editor	Enrique Cao, Jesús Fidalgo
School	IES Rosalía de Castro
Subject	**CHEMISTRY AND PHYSICS**
LD Title	**Chemical Bonding**
Year group	13-16 years old, 3rd Year Secondary
Duration	four teaching hours
Short description	The proposed activities seek to be able to recognize the different ways of linking the atoms to form elements and compounds. Students should also be able to identify the types of link from the chemical formula and the physical properties of the substances.
Hosted (URL)	Lesson: https://mahara.ats2020.eu/view/view.php?id=14615 Learning Design: https://resources.ats2020.eu/resource-details/LEDE/chemical_bonding

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- My Learning (Journals)

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Relate the properties of metals, non metals and gasses within the periodic table and with their tendency to form ions or share electrons, taking as reference the nearest noble gas.
- Identify, from the chemical formula, covalent, ionic, and metallic substances.
- Explain the process of joining the corresponding geographic information, using adequate animation for preparation.
- Explain the process of formation of simple molecules (hydrogen, water, oxygen, nitrogen, methane ...) from the sharing of electrons.
- Relate the physical properties of substances with their type of link.
- To know the chemical formula of elements and compounds of frequent use, and to classify it according to its physical properties.

Tasks to develop these competences towards the learning outcomes

- Brainstorming conducted as a class group.
- Collective and individual analysis of the different types of chemical bonds.
- Choice of an element or compound of those used in previous units for study in the group.
- Organization of the working group: distribution of functions.
- Research in reliable documentary sources (digital and analogue).
- Performing a laboratory activity related to the physical properties of the substances.
- Creation of organized scientific reports according to the models and following the criteria of adequacy, cohesion and coherence.
- Evaluation and proposal for improvement of the same by colleagues.
- Transcription, edition and publication of the same in a page of Mahara.
- "My learning": The students reflect about the objectives, tools and strategies at your service, difficulties, successes and the results obtained (evidences).

Skills and competences necessary to reach the expected outcomes

Transversal Skills
1. Informational literacy (AI) .2.Collaboration / Communication (C) .3.Creativity / Innovation (I) .4.Digital literacy (AD) .5.Self learning (AU) .Key competences
1.Competence in linguistic communication (CCL).
2.Mathematical competence and basic skills in science and technology (CMCCT).
3. Digital competence (CD).
4. Learning to learn (CAA).
5.Social and civic competences (CSC).
6. Sense of initiative and entrepreneurial spirit (CSIEE).
7. Awareness and cultural expressions (CCEC).
Most of the key competences will be developed in the process of putting the UD into practice. In addition, the variety in the reports to be completed will complete those less developed as the CCL.
Digital tools:
Own computers or mobile devices. Computer classroom. Digital blackboard. Audiovisual equipment. Google Apps for Education. Mahara.

Leaning outputs – through all stages (assessment)

- Reflection in a collective and individual way on the different forms of liaison of the atoms to form elements and compounds.
- Publication of a scientific report on the substance (element and / or compound) chosen to analyse. Brief oral description of the work.
- Peer assessment by rubric (Google Forms).
- Self-assessment of the process, difficulties encountered and results obtained in the "Learning" section.

III. Learning Design Micro-level

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
Activity 1 A.1.1. Brainstorming: Why do atoms combine? introduction: Present the learning cycle (UD): objectives, activities, instruments and evaluation procedures. ▪ A.1. 3. Video about the chemical link https://www.youtube.com/watch?v=OTgpN62ou24 (2.5min). Once the quick reading is finished (a questionnaire is included to be completed at home), the requirements for establishing a chemical link are discussed / discussed. ▪ A.1. 2. Present the learning cycle (UD): objectives, activities, instruments and evaluation procedures. ▪ A.1. 3. Video over the chemical link https://www.youtube.com/watch?v = OTgpN62ou24 (2.5min). ▪ A.1.4. Complete the link questionnaire ▪ A.1.5. Introduction to the formulation of binary salts: https://www.youtube.com/watch?v = URc75hoKGLY (11 min) ▪ KAHOOT IT! ▪ A.1.5. Reflection on learning. Video-song about the chemical link https://www.youtube.com/watch?v=mpJSiak_37o	Theme: - Recognition in a collective and individual way of the basic characteristics of a dissolution starting from the initial intuitive practice. - Initial knowledge of the basic functions of the Mahara platform, including the self-assessment tools	- The key competences will be developed in the process of putting the UD into practice - The transversal skills 1.Informational literacy (AI) 2.Collaboration / Communication (C) 3. Creativity / Innovation (I) 4.Digital literacy (AD) . 5.Self learning (AU) - Key competences 1. Competence in linguistic communication (CCL). 2. Mathematical competence and basic skills in science and technology (CMCCT).	- P.1.1 The active teacher the knowledge previous class group, through the activity of "Brainstorming" - P.1. 2 Wanted clearly convey the objectives of work, proposed tasks, evidences and rubrics of evaluation. - P.1. 3 The possibility of participation of students in the development of evaluation rubrics. - P.1.4 The activities carried out done by the students. - P.1.5 Observed and participate in the course of the tasks, evaluating processes, results and diaries learning and fostering peer assessment during the process - AL.1.1 The students participate actively in the brainstorming,	Guide students through the learning process	Chalk. Cannon, digital board and teacher's computer. Computers with internet connection Chemistry laboratory.	Interaction in the classroom: group-class. Work in groups of 4 Work in pairs. Individual work.	Reflection in a collective and individual way on the different forms of liaison of the atoms to form elements and compounds	Observation of the process by the teacher / student Active participation of the students during the interaction. Creation and consensus of different-assessment tools (rubrics). Clarification on the use of the self-assessment tool

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
		3. Digital competence (CD) 4. Learning to learn (CAA). 5. Social and civic competences (CSC). 6. Sense of initiative and entrepreneurial spirit (CSIEE). 7. Awareness and cultural expressions (CCEC).	activating its previous knowledge. Hypothesis formulation. - AL.1.2 Collaborate in the determination of the objectives, participate in the creation and development of activities and of the procedure of assessment (rubrics). - AL.1.3 Following the protocols established in the classroom, they use computers of the IT classroom to explore basic characteristics of the Mahara platform and Google Classroom - AL.1.4 Participate in the assessment process, completing their journal learning (self-assessment)					
Activity 2: A.2.1 Covalent link. ▪ Video about the covalent link: https://www.youtube.com/watch?v=LkAykOv1foc (6 min.) ▪ Complete the activity questionnaire. ▪ A.2.2 Lewis structures ▪ Video on Lewis structures: https://www.youtube.com/watch?v=Sk7W2VgbhOg (4 min)	- Theme - Specific recognition in a collective and individual way of the basic characteristics of a mixture / dissolution / pure substance.	- Cross-disciplinary competences - Learn to learn. - Social and civic competence. Respect and interest in the opinions of others.	- P.2.1 The teacher presents the activity and manages tasks and times. - P.2.2 The teacher supports the development of the group activity	The teacher supports students	Chalk. Cannon, digital board and teacher's computer. Computers with	Learning by doing	Research in reliable documentary sources (digital and analogue).	Observation of the process by the teacher / student body. Active participation

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
▪ Complete questionnaire to send to google classroom ▪ A.2.3 General review questionnaire ▪ A.2.3. Chemical formulation II (covalent binary compounds) ▪ KAHOOT IT!	Verification refutation of the initial intuitions and settlement of knowledge the classification of the subject. Deepening in the contrasted and shared knowledge of the classification of the subject. Continuation in the familiarization with the Mahara platform	- Information literacy. - Collaboration / Communication. - Digital literacy.	pivoting as necessary between the groups. - P.2.3 The teacher makes observations about the performance of the students during the oral exchange. - Perform the proposed activities. - AL.2.2 Once the activities have been carried out in a large and small group, they will reflect what they have learned in the group's blog. - AL.2.3 The students reflect individually on the task carried out in the "Learning" section of Mahara.		internet connection. Chemistry laboratory.			of the students during the interaction. Learning diary ("My learning")
Activity 3: A.3.1 Physical properties ▪ Properties of ionic substances: video https://www.youtube.com/watch?v=TxHi5Ft MYKk (4 min) ▪Comment / debate about the video ▪Properties of covalent substances: video 1 (simple molecules) https://www.youtube.com/watch?v=OdijwnBRNp0 (2 min)	Theme: Specific recognition in a collective and individual way of the basic characteristics of mixtures / solutions / pure substances. Deepening in the contrasted and shared knowledge of the procedures to separate the components of a mixture / dissolution.	- Information literacy - Collaboration / Communication - Digital literacy. - Autonomy - Creativity.	- P.3.1 The teacher presents the activity and manages tasks and times. - P.3.2 The teacher supports the development of the group activity pivoting as necessary between the groups. - P.3.3 In his journey, the teacher makes observations about	Support students in the learning process	Wax and chalk. Cannon, digital board and teacher's computer. Computers with internet connection.	Interaction in the classroom: group-class. Work in pairs. Individual work	Relate the physical properties of substances	Observation of the process by the teacher / student. Active participation of the students during the interaction.

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
Video 2 (giant structures) https://www.youtube.com/watch?v=FKTsQOpLwdE (3 min) ▪Comment / debate about the videos ▪Properties of metallic substances: video https://www.youtube.com/watch?v=wNQqYa8b9XQ (3 min) ▪A.3.2 Acid formulation for common use ▪A.3.3. Preparation of laboratory activity. ▪Review of the activity sheet. ▪A.3.4. Laboratory activity ▪A.3.5. Presentation of laboratory report	Continued familiarization with the.		the performance of the students during the oral exchange. - AL.3.1 Students perform the proposed activities. - AL.3.2 The separation of the components of their corresponding solutions is done in groups of 4. - AL.3.3 The students reflect individually on the task carried out in the section "Learning.		Chemistry laboratory.			Learning diary ("My learning)
Activity 4: ▪ A.4.1 Review - Video: https://www.youtube.com/watch?v=QIfTT-_-xLo (3 min) - General review of the content of the subject ▪ A.4.2 Questionnaire for evaluation From the results obtained in the activity ▪ A.4.3 Self-assessment / evaluation of activities ▪ A.4.4. Written test about the contents of the unit	Theme: ▪ Specific recognition in a collective and individual way of the factors that affect solubility. ▪Development in the contrasted and shared knowledge of the expression of the concentration of solutions. ▪Continuation in the familiarization with the Mahara platform	- Transversal competencies: - Alphabetization informational. - Collaboration / Communication. - Alphabetization digital. - Cooperation. - Autonomy. - Creativity.	- P.4.1 The teacher presents the activity and manages tasks and times. - P.4.2 The teacher supports the development of the group activity pivoting as necessary between the groups. - P.4.3 In his journey, the teacher makes observations about the performance of the students during the oral exchange.	Support students in the learning process	Chalk. Cannon, digital board and teacher's computer. Computers with internet connection. Chemistry laboratory.	Interaction in the classroom: group-class. Work in pairs. Individual work	Publication of a scientific report on the substance (element and / or compound) chosen to analyse. Brief oral description of the work.	Observation of the process by the teacher / student body. Active participation of the students during the interaction. Learning diary ("My diary)

Activity title	Learning goals – Learning Outcomes		Tasks (teacher/students)	Teacher's role	Tools	Methodology – Class Arrangement	Learning Outputs (expected)	Assessment tool
	Subject area	Transversal skills						
			- AL.4.1 Students perform the proposed activities. - AL.4.2 Summaries on the proposed video are done in pairs. - This time they will take turns in each pair to complete a common table of differences and similarities, on the concepts seen, on the board. - AL.4.3 The students reflects individually on the task carried out in the "Learning" section of Mahara. - AL.4.4 The students, individually, complete the written test on the contents of the unit.					

IV. Material, resources and students' artefacts

Material/resources for Learning Design

	Description	Type	File name / URL	Language
Material to support tasks and activities (Description of tasks/activities, rubrics, worksheets, etc.)	Proposal	Mahara videos	https://mahara.ats2020.eu /view/view.php?id=14616	English
	Binary ionic compounds.	Video	https://mahara.ats2020.eu /view/view.php?id=14616	English
	Covalent bonding	Mahara	https://mahara.ats2020.eu /view/view.php?id=14613	English
	Learning activities	Mahara	https://mahara.ats2020.eu/ view/view.php?id=14613	English
Students' artefacts (Products, ePortfolios, etc.)	1.	Questionnaire	Done with google docs	English
	2.	Learning reflection	**Complete your notes** about the different properties of substances.	English




MACRO-LEVEL LEARNING DESIGNS

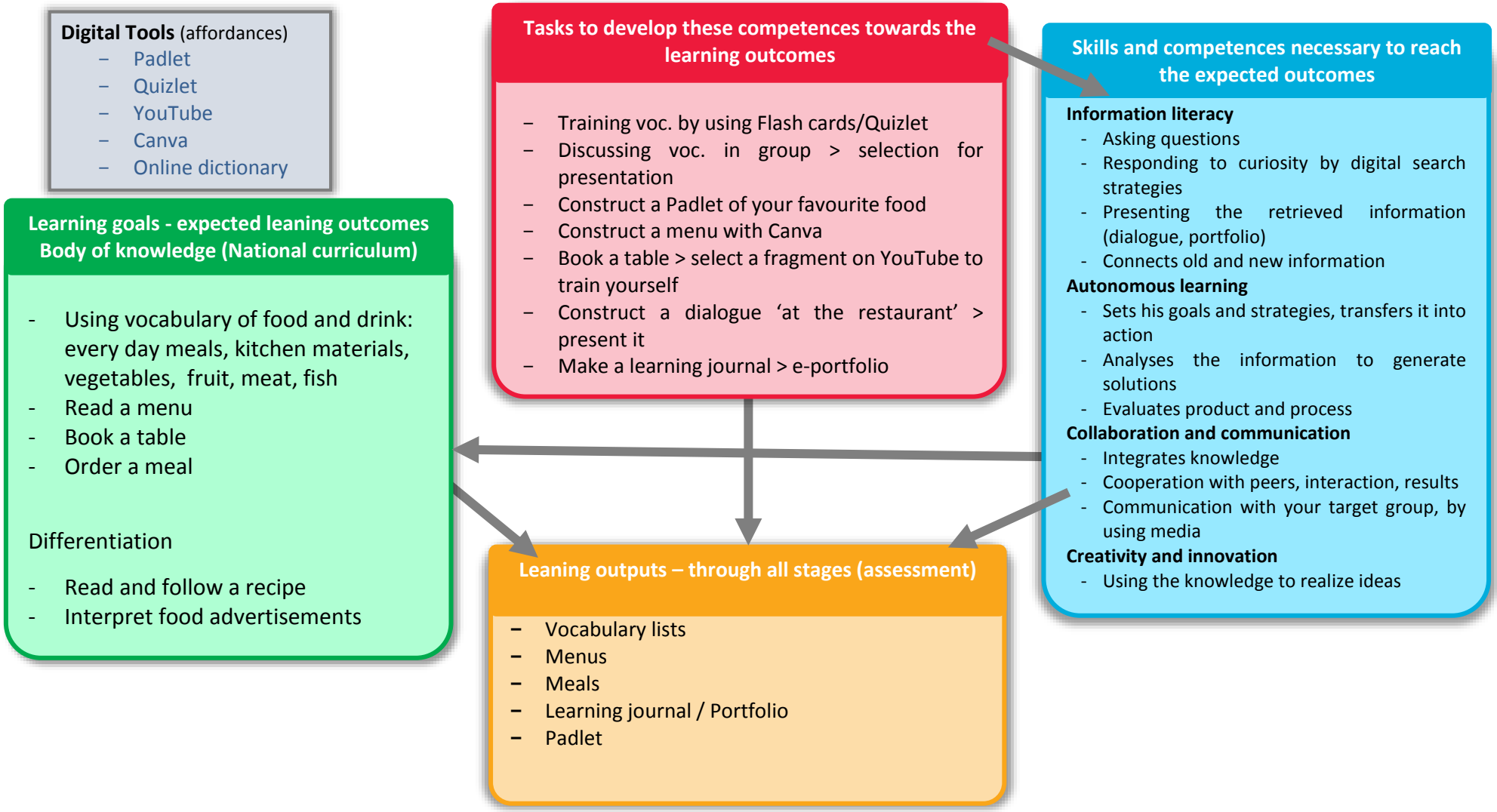
BELGIUM

English as a Second Language: Food and Drink

I. GENERAL DESCRIPTION

Country	Belgium
Author/Editor	Ann Bosmans
School	KTA Vilvoorde
Subject	**ENGLISH AS A SECOND LANGUAGE**
LD Title	**Food and drink**
Year group	Secondary Education (13-14 years)
Duration	Two teaching hours
Short description	Learning vocabulary food and drink-Reading a menu-Booking a table-Preparing a meal
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/food_drink

II. Learning Design Macro-level



BELGIUM

Natural Science: Puberty

I. GENERAL DESCRIPTION

Country	Belgium
Author/Editor	Anja Bal
School	Leefschool t Zandhofje Zandhoven
Subject	**NATURAL SCIENCE/BIOLOGY**
LD Title	**Puberty**
Year group	Primary School (sixth grade)
Duration	Two teaching hours
Short description	Features and vocabulary of puberty
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/puberty
Learning design in Dutch:	https://resources.ats2020.eu/resource-details/LEDE/puberty2

II. Learning Design Macro-level

Digital Tools (affordances)
- EdPuzzle
- Todaysmeet
- Answergarden
- Ppt or Prezi

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Features of the phases of development
- Recognize and describe changes of the human body of boys and girls, during puberty
- Recognize that puberty not only influences physical changes of the human body
- Write a text (e.g. a poetry) about puberty and support it with illustrations

Tasks to develop these competences towards the learning outcomes

- Construct a word puzzle (cloud) with several words related to puberty
- Make an overview of changes of the human body in a presentation (in group)
- Identify non-physical changes by analysing visual material and discussing in a brainstorm session
- Sharing personal feeling and opinion
- Writing and illustrating poetry (text)
- Sharing and reading poetry (text)
- Feedback by peer evaluation

Skills and competences necessary to reach the expected outcomes

Targeted

- Collect, select and share information
- Collaboration and communication

Emerging

- Communication and presentation skills
- Writing skills
- Illustrate poetry (text) with online material
- Monitoring learning process by using e-portfolio
- Sharing feedback

Leaning outputs – through all stages (assessment)

- Construct a collection of poetry (text) about puberty
- Using a chatroom to share personal feelings and opinion about changes during puberty
- Presentation of physical changes during puberty
- Construct a word cloud about puberty

CYPRUS

Physical Education: Defence and Attack Games

Physical Education: Defence and Attack Games

I. GENERAL DESCRIPTION

Country	Cyprus
Author/Editor	Foteini Massou
School	Tricherousa Primary School
Subject	**PHYSICAL EDUCATION**
LD Title	**Defence and Attack Games I**
Year group	Primary Education, Sixth Grade
Duration	6x40’
Short description	The children had skills in defence and attack games and defence and attack strategies. The goal of the learning cycle was to cultivate children's good behaviours as players in order to implement and adhere to the rules of fair play.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/games_cy
Learning design in Greek	https://resources.ats2020.eu/resource-details/LEDE/fisiki_agogi

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- My Learning (Journals)
- Office 365

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Apply rules to modified games
- Apply strategies to defence and attack games
- Observe, evaluate and correct their moves (with given points for observation and evaluation)
- Find ways to positively enhance others and motivate them to become better
- Students should show appropriate athletic behaviour (Fair Game Principles, Compliance with the rules, Respect for the other players, Don't destroy the game with my behaviour, Acceptance of error / Taking responsibility, Accepting victory and defeat, Congratulating my team and the opponents' team
- Present appropriate social behaviour
- Collaborative skills - Taking roles and responsibilities (Team player, Referee)
- Work with other children with or without the direct supervision of the teacher

Tasks to develop these competences towards the learning outcomes

1. Recording their thoughts – mind-map for the words ''games'' and ''player'' (teamwork)
2. Defense & Attack games
3. Roles: Player - views / thoughts about the role of the player
4. Self-evaluation card for the player (when the students assume the role of the player) - individual goals
5. Photo shoot of appropriate behaviors - choosing best photos for poster and presentation
6. List and presentation with appropriate player behavior in the game (teamwork)
7. Comment a newspaper article about the behavior of a player in the game
8. "My Learning journal", Self-Assessment of Student Skills, Student ePortfolio

Skills and competences necessary to reach the expected outcomes

Targeted

Communication and Evaluation
- Interact, collaborate, and publish with peers, experts, or others
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats

Contribute to project teams to produce original works or solve problems

Emerging

Information literacy
- Process information and construct new knowledge

Creativity and Innovation
- Innovating and creatively using tools and resources

Autonomous Learning
- Identify significant needs for learning based on their prior knowledge
- Define goals to achieve and develop a strategy to achieve them
- Evaluate process and results and provide evidence for achievement

Leaning outputs – through all stages (assessment)

- Mind-map for games and player
- Ideas/views for player's role
- Self-evaluation card for the player – personal goals
- Photos of appropriate behaviors
- List and presentation with appropriate game behavior
- Comments regarding a newspaper article
- My Learning journal, self-evaluation of students' skills, students' ePortfolios

CYPRUS

Modern Greek: Racism

II. Learning Design Macro-level

Country	Cyprus
Author/Editor	Photini Theodoulou
School	Akropolis Gymnasium
Subject	**MODERN GREEK**
LD Title	**Racism**
Year group	Gymnasium C' Class
Duration	6X40'
Short description	For this unit, students have to prepare an oral presentation on a form of racism. To prepare for their presentation, students analyse and discuss relevant texts in the classroom. They search online for information and pictures for the accompanying presentation they can while giving their presentation. Students present the presentation to their classmates and are evaluated by their classmates and the teacher. In addition, they have to prepare a poster with criteria for oral speech and put a degree of significance for each one.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/racism_en
Learning design in Greek	https://resources.ats2020.eu/resource-details/LEDE/Racism

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- OneNote Class Notebook
- My Learning (Journals)
- OneNote notebooks
- PowerPoint

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Produce argumentative oral speech/ written texts, in specific text genres, in which they incorporate description/ narration/ instructions.
- Organize their oral / written speech at the level of text, paragraph, sentence, word.
- Judge, evaluate and improve the text they produced, with particular, personal or given criteria.
- Locate the general theme of the oral text, interlinking both textual and non-textual elements.
- Evaluate the oral text and the effectiveness of the argumentation incorporated in it, with particular, personal or given criteria.

Tasks to develop these competences towards the learning outcomes

- Students complete their "My Learning" journal
- Students can choose to work individually or in teams to create a 3-minute oral presentation for a form of racism. Students will study texts on racism in the classroom. Their home should look for more information from the internet about their subject in order to prepare their presentation. They also need to prepare a presentation in PowerPoint.
- Students present their work in class
- The teacher evaluates their oral presentations with an evaluation tool.
- Students evaluate the presentation of another group.
- Students create posters with criteria of evaluation for oral speech and put a degree of significance for each of the criteria.
- Students create their ePortfolio for the unit

Leaning outputs – through all stages (assessment)

- Completed "My Learning" journal
- ePortfolio for every student
- Students' presentation for racism
- Poster with evaluation criteria for oral presentation
- Completed assessment tools

Skills and competences necessary to reach the expected outcomes

Targeted

Communication and collaboration
1. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
2. Contribute to project teams to produce original works or solve problems.

Creativity and Innovation
3. Integrate and re-elaborate content

Information Literacy
4. Plan strategies to guide inquiry.
5. Evaluate and select information sources and tools based on the appropriateness to specific tasks.
6. Locate, organise, analyse, evaluate, synthesize and ethically use information from a variety of sources and media.
7. Process information and construct new knowledge.
8. Integrate new knowledge and apply to new situations.

Emerging

Autonomous learning
9. Evaluate process and results and provide evidence for achievement.
10. Reflect and explore alternative approaches

III. Material, resources and students' artefacts

Exemplar ePortfolio

Αναστασία - ePortfolio ΕΝΟΤΗΤΑ ΡΑΤΣΙΣΜΟΣ

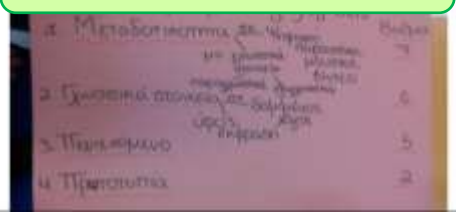
PowerPoint file of student's presentation

Photo of students' collaboration

Teacher assessment

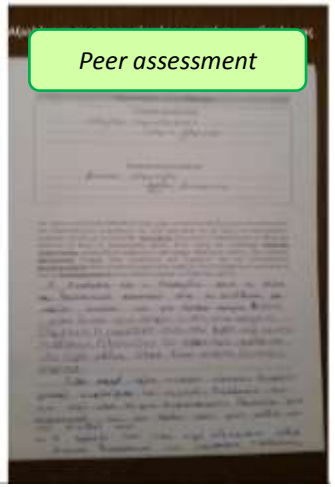
Αναστασία Σιδηροπούλου	
Περιεχόμενο • Πολύ καλή η εργασία σας! Δώσατε τα βασικά στοιχεία, προβάλλοντάς τα μάλιστα μέσα από εικόνες. Μπράβο σας!	5 / 5
• Ένα ορθογραφικό λαθάκι: Έλλειψη τονίσεων	
Πρωτοτυπία • Εύστοχη η σύνδεση των εικόνων με όσα αναφέρατε.	1 / 1
Μεταδοτικότητα • Μπράβο σου, Αναστασία μου! Είχες άνεση στην παρουσίαση: παύσεις, διακυμάνσεις της φωνής, επικοινωνία με το κοινό, κινήσεις και χειρονομίες. • Σημαντικό ότι διατηρήσατε τη σοβαρότητά σας, όταν οι κάποιοι από τους συμμαθητές σας γελούσαν.	7 / 7
Διαχείριση χρόνου • Καλή διαχείριση του χρόνου.	1 / 1
Σημειώσεις από άλλες παρουσιάσεις • Καλές σημειώσεις. Μπράβο!	2 / 2
	20 / 20

Student poster with evaluation criteria for oral speech

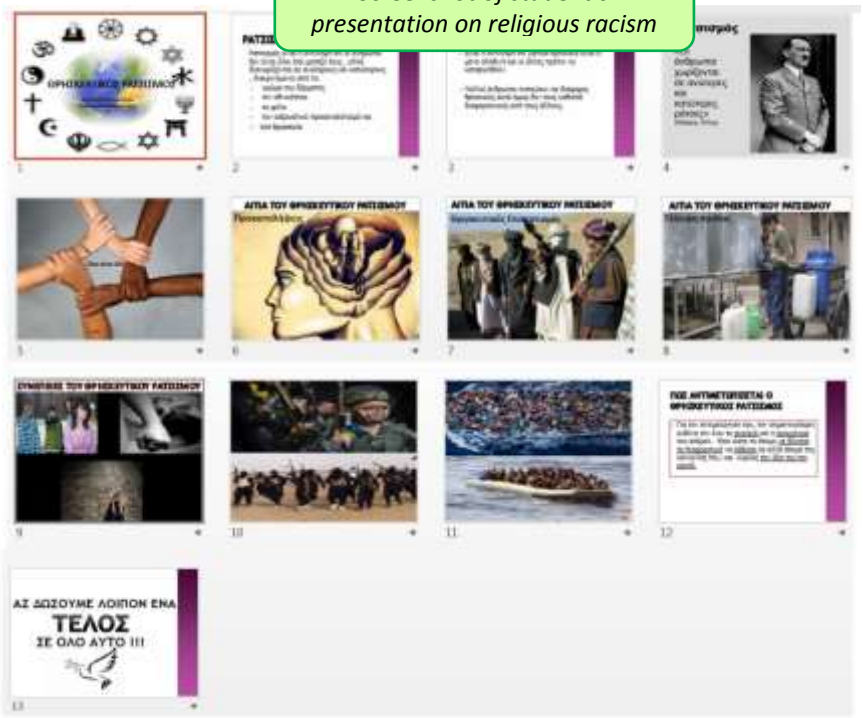


"My Learning" journal

Peer assessment



Screenshot of student's presentation on religious racism



ESTONIA

English as a Foreign Language: English-speaking countries and culture

II. Learning Design Macro-level

Country	Estonia
Author/Editor	Annika Allikson
School	Jüri Gümnaasium (Jyri Gymnasium)
Subject	**ENGLISH AS A FOREIGN LANGUAGE**
LD Title	**English-speaking countries and culture**
Year group	8th Grade, 14-15 year-olds
Duration	Two lessons
Short description	The students form pairs and are given one English speaking country to make a presentation about. The presentations are shared with the whole class on Mahara. The students also create a learning game, search for videos on their chosen country's most popular sights and anthem on Youtube and find two geographic maps for each of the countries. The students create their pages on Mahara.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/est_english_speaking

II. Learning Design Macro-level

Digital Tools (affordances)
- ATS2020 Mahara
- My Learning Journals
- Computer
- Headphones

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)
- Knows how to find necessary information and evaluate it critically
- Knows how to make an attractive presentation
- Learns how to use cooperation skills
- Learns how to sort information and allocate more important information from
- Knows how to make a crossword
- Knows how to use correct spelling and grammar in English

Tasks to develop these competences towards the learning outcomes
- Completing My Learning Cycle
- Finding necessary information about chosen country
- Making a presentation (PowerPoint, Padlet)
- Creating a crossword about chosen country (LearningApps)
- Finding 2 geographical maps
- Searching videos about national anthem and TOP 10 popular sightseeing (Youtube)
- Reading classmates' presentations and commenting them

Leaning outputs – through all stages (assessment)
- Individual feedback
- Individual portfolio
- My Learning Journals
- Peer assessment

Skills and competences necessary to reach the expected outcomes

Targeted:
- Search, collect, retrieve and share information (information literacy skills)
- Plan, monitor, share their learning
- (autonomous learning skills)
- Develop criteria and apply them (autonomous learning skills)

Emerging:
- Create an e-portfolio of their learning (autonomous learning skills)
- Use digital technologies (digital skills)
- Communication skills

FINLAND

History, Mother Tongue (Finnish) and Literature: Course project: How to influence?

Course project: How to influence?

I. GENERAL DESCRIPTION

Country	Finland
Author/Editor	Suvi Vasama and Paula Prinssi
School	Turengin yhteiskoulu
Subject	**HISTORY, MOTHER TONGUE (FINNISH) AND LITERATURE**
LD Title	**Course project: How to influence?** **Unit 1: Influencing by writing** **Unit 2: Influencing by speech** **Unit 3: Visual influence**
Year group	Secondary (8E), 14 year olds
Duration	15x45’
Short description	In this course project influencing skills that are included in the course objectives of mother tongue and literature are combined to the content of history course (the World War II). Influencing people is a common theme in both subjects. ICT will be used throughout the project. Democracy and participation in the society, written, oral and visual ways to influence people: literature, letters to the editor, propaganda in the World War II, holding a speech, debate, posters and documentary films.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/influence

II. Learning Design Macro-level

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Understanding language, literature and culture.
- Understanding historical phenomena.
- Understanding how literature and art have influenced at different time periods.
- Students are able to justify their points of view and influence their own lives and the surrounding society by utilising different communication methods and devices.
- Students observe how they are influenced in the society, how they can influence others and what kind of influencing methods could be used.
- Different perspectives of influence and advocacy.
- Sustainable development and the future, socio-cultural perspective.

Tasks to develop these competences towards the learning outcomes

- Reading an impressive novel (John Boyne: Boy in the Striped Pyjamas, watching the trailer https://youtu.be/9ypMp0s5Hiw), analytical assignments: interviewing each other's in pairs & a personal writing task: a list of options e.g. write a new end for the story).
- A problem path with QR-code tasks about the historical time of the novel: Second World War (developing a competition for younger students, a group task).
- Opinion articles and letters to the editor: examining the day's paper and searching for genres of text that represent the writer's opinions. Analysing modes of argumentation.
- Writing an individual letter to the editor.

Digital Tools (affordances)

- YouTube
- Google Classroom and Google Drive
- Padlet
- iPad, QR-code generator and reader

Skills and competences necessary to reach the expected outcomes

Targeted

- Information Literacy (Thinking and learning to learn, Multiliteracy, ICT skills)
- Creativity and Innovation (Thinking and learning to learn, argumentation, listening)
- Collaboration and Communication (Cultural competence, interaction and self-expression)

Emerging

- Self- and peer-assessment
- Student-to-student teaching

Leaning outputs – through all stages (assessment)

- Interview in pairs on the book's story with a list of helping questions. Peer assessment.
- Writing about the novel (text documents in the personal e-portfolio). Teacher assessment.
- Competition is based on the QR-code tasks, solved in pairs, younger and older students together, by using iPads and Google Classroom. Group assessments by a discussion after the session / peer feedback.
- Classroom discussion about the day's paper: genres of influencing texts. Notes to a shared Padlet.
- A letter to the editor -text. Teacher's assessment.
- Self-assessment after the learning cycle. Discussion between students and teachers.

II. Learning Design Macro-level

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Understanding language and culture.
- Understanding historical phenomena.
- To become an active user and creator of culture.
- Developing the skill of presenting a prepared speech.
- Students are able to justify their points of view and influence their own lives and the surrounding society by utilising different communication methods and devices.
- Students observe how they are influenced in the society, how they can influence others and what kind of influencing methods could be used.
- Different perspectives of influence and advocacy.

Tasks to develop these competences towards the learning outcomes

- Watching historical films where leaders of the Second World War are speaking.
- The student chooses an object or an area from the society where he or she finds some grievance and where he or she wants to influence and writes an influential speech related to it.
- Debate: students will from groups by draw and topics will be assigned (different topics concerning the life of youth) for each group.Studying theory and watching a clip of 8th class debate on the online-TV platform.

Digital Tools (affordances)
- Google Classroom and Google Drive
- Padlet

Skills and competences necessary to reach the expected outcomes

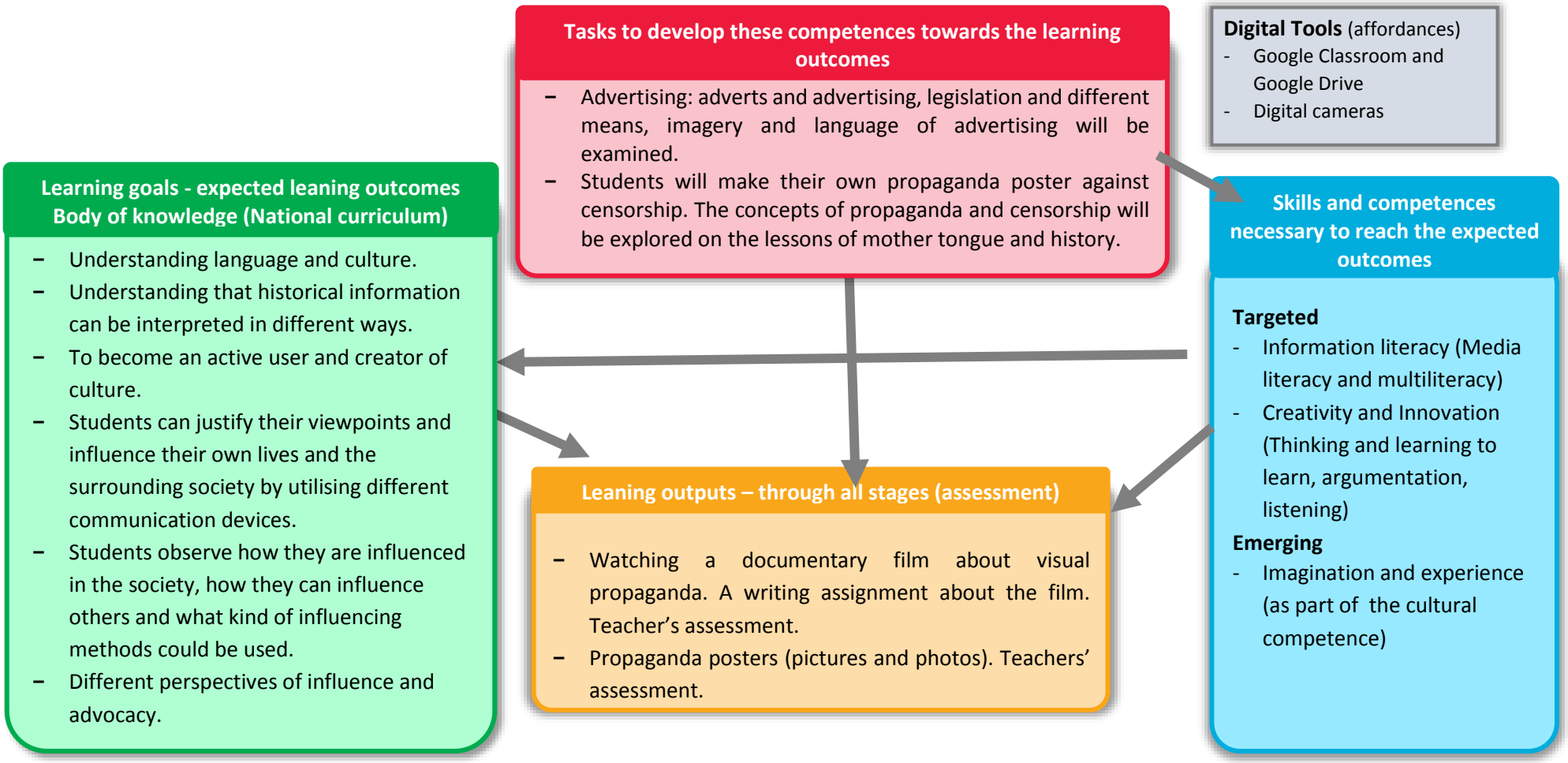
Targeted
- Skills of expressing oneself and the ability to argue (Cultural competence, interaction and self-expression)
- Creativity and Innovation (Thinking and learning to learn, argumentation, listening)
- Collaboration and Communication (Cultural competence, interaction and self-expression)

Emerging
- Courage
- Self- and peer-assessment

Leaning outputs – through all stages (assessment)

- Analysing historical speeches in pair discussions and making collective notes in Padlets. Group reflection after this stage.
- Writing an own speech in a Google Document. Literal feedback in pairs and rewriting the speech.
- Holding the speech in the classroom. A written peer and self-assessment as well as a teacher's brief feedback discussion with the whole class.
- Debates: the teacher assesses argumentation, speech skills and cooperation.

II. Learning Design Macro-level



GREECE

Physics: Speed/Velocity- Linear Motion

I. GENERAL DESCRIPTION

Country	Greece
Author/Editor	Sarantos Economidis
School	Third Gymnasium of Nikea, Athens, Greece
Subject	**PHYSICS**
LD Title	**Speed/Velocity- Linear Motion**
Year group	Gymnasium B' Class
Short description	Students use scientific methodological approach while developing their skills.
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/speed-velocity
Learning Design in Greek	https://resources.ats2020.eu/resource-details/LEDE/taxitita

II. Learning Design Macro-level

Digital Tools (affordances)
- Mahara (Forum, groups, mylearning, pages, files, ePortfolio)
- Tracker (VideoAnalysis)
- Padlet (environment for synchronous collaboration)
- Google forms(Quiz)
- Windows snipping tool
- WiseMapping
- EDpuzzle
- ScreenCast-O-matic or screencastify

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- Being able to use time-and-speed-time diagrams for movement in one dimension to determine the motion state of an item/body
- Continuous student contact with scientific way of thinking and scientific methodological approach (observation, concentration, exploitation of information from various sources, hypothesis, experimental control, analysis and interpretation of data, conclusions, generalization and modeling).

Tasks to develop these competences towards the learning outcomes

- Quiz for detection of the students' prior knowledge and understanding (through the use of an online questionnaire - google forms, Interactive Video (EDpuzzle), and concept mapping (WiseMapping)
- Defining the problem and exchanging opinions about how someone could define whether the motion of a toy car is uniform or non-uniform (Padlet)
- Using available equipment to search information for the solution of the problem. Installing and learning how to use the application "Tracker" for video analysis. Collaboration through Padlet or the Mahara Forum.
- Tutorial for learning how to use the application "ScreenCast-O-matic"
- Formulating a hypothesis (Mahara)
- Designing, performing and filming the experiment
- Video analysis, Data Collection (Tracker)
- Posting / Publishing the solution to a page (Mahara)
- Uploading the video (Mahara)
- My learning journal (Mahara)

Skills and competences necessary to reach the expected outcomes

Targeted:
- Search and collection of Information (Information Literacy)
- Exchange of opinions, ideas and reviews (Communication & Collaboration)
- Formulating a hypothesis (Digital Literacy)
- Creative Problem Solving (Information Literacy)
- Posting / making the solution known to the teacher/Group/Public (Digital Literacy)
- Completing the «my Learning» (Self-regulation skills / Autonomous Learning)

Emerging:
- Familiarisation with digital tools for collecting data, digital communication, collaboration and creativity tools (Digital Literacy)

Leaning outputs – through all stages (assessment)

- Development of students ePortfolios
- Recording of each student's personal course of learning
- Rubric filled in by the students, aiming at reflection and self-assessment of the the communication and collaboration process.

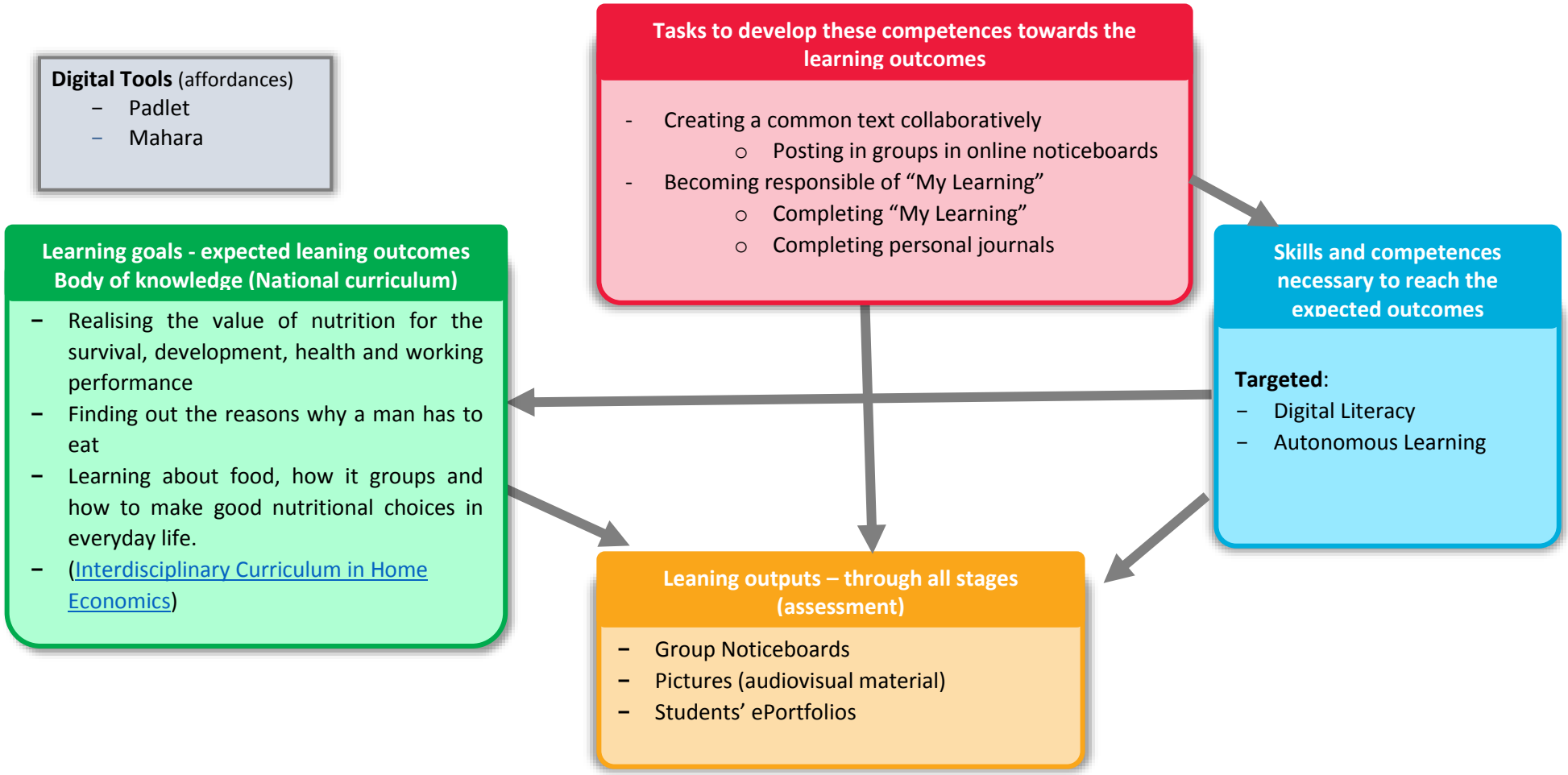
GREECE

Home Economics: Nutrition - Vegetarianism and Nutritional Trends

I. GENERAL DESCRIPTION

Country	Greece
Author/Editor	Kalomira Simota
School	2nd Gymnasium of Paralia Patras, Achaia, Greece
Subject	**HOME ECONOMICS**
LD Title	**Nutrition - Vegetarianism and Nutritional Trends**
Year group	Gymnasium A' Class
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/nutrition
Learning Design in Greek	https://resources.ats2020.eu/resource-details/LEDE/oodiatrofi

II. Learning Design Macro-level



IRELAND

Business Studies: Marketing Your Business

I. GENERAL DESCRIPTION

Country	Ireland
Author/Editor	Miriam Bergin
School	Coláiste Mhuire Co Ed
Subject	**BUSINESS STUDIES**
LD Title	**Marketing Your Business**
Year group	Secondary - First Year
Duration	8 class periods plus 2 homework assignments
Short description	Students will design a poster on the Marketing Mix, using a product or Service of their choice to show their understanding of the Marketing Mix
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/marketing

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- Modelled internet search
- Reflective questions in portfolio

Tasks to develop these competences towards the learning outcomes

- Understand what is meant by marketing research
- How does this support the development of a marketing mix
- What is a marketing mix?
- Reflecting on learning using prompt questions

Skills and competences necessary to reach the expected outcomes

Targeted:
Autonomous Learning:
- Collect/ Analyse information to identify solutions and make informed decisions
- Gather evidence of learning achievement
- Reflect and explore alternative approaches

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

- 2.8 Devise and apply a marketing mix in order to promote a new or existing product or service

- What is marketing?
- What is a marketing mix
- What is 'product'?
- What is 'price'?
- What is 'place'?
- What is 'promotion'?
- Understand Market Research
- Primary & Secondary Research

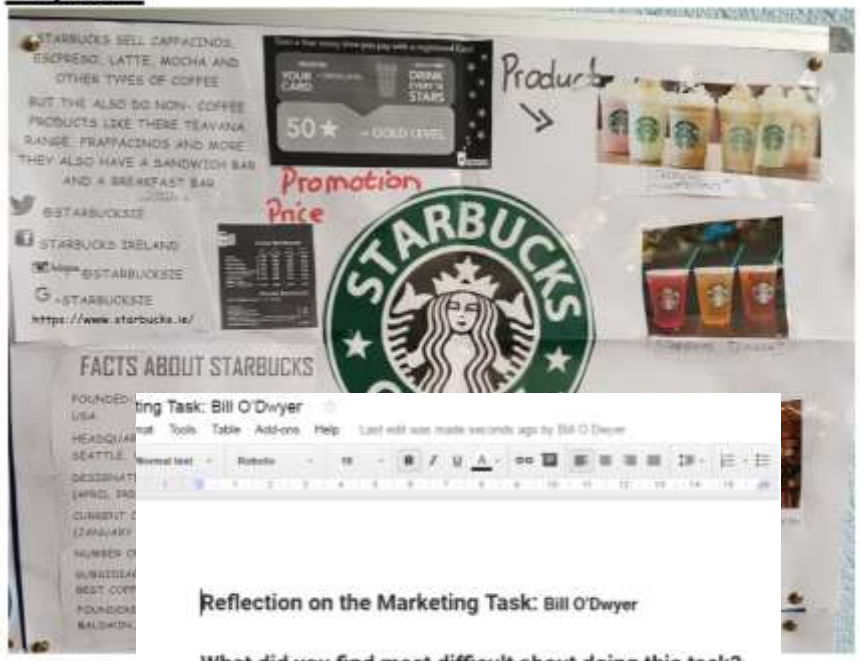
Leaning outputs – through all stages (assessment)

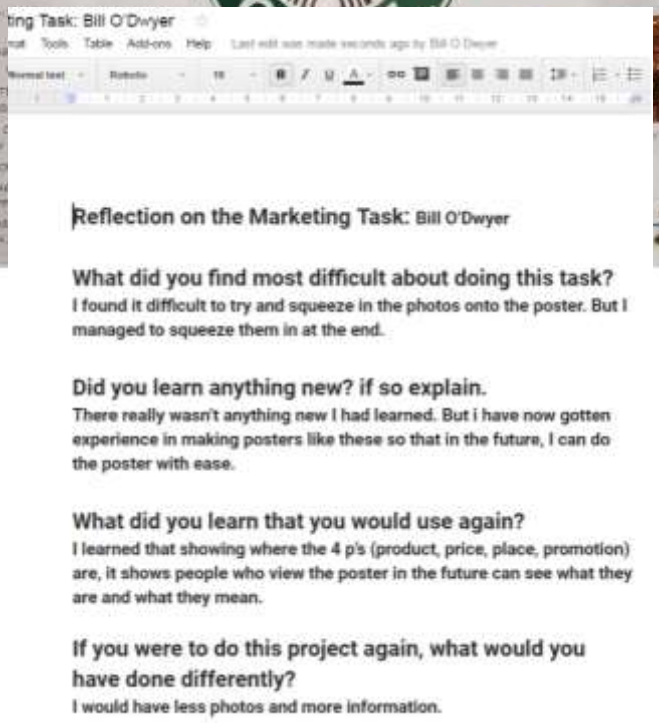
1. Present your project in a poster form which can be handwritten, typed or a combination of both following the guidelines for effective presentations, ensure font is readable.
2. Research a product of their choice via secondary research sources.
3. Apply the marketing mix to their chosen product.
4. Ability to work independently to initially research a product of their choice, either at home or via the computer study hub in School.
5. Complete a reflection on this task. Answer the following questions. What did you find most difficult about this task?, Did you learn anything new?, What did you learn that you would use again? and If you were to do this project again, what would you do differently?

III. Material, resources and students' artefacts

Project Pictures

Project : 1





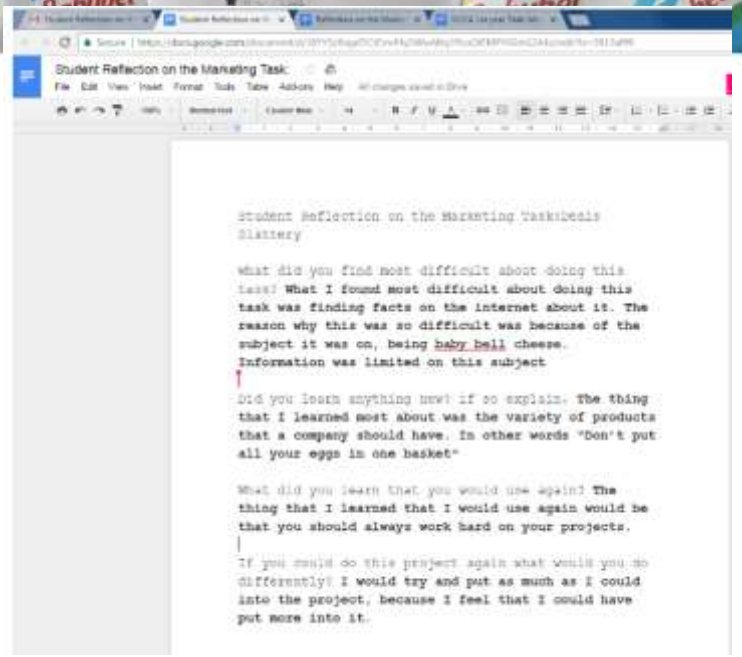
Reflection on the Marketing Task: Bill O'Dwyer

What did you find most difficult about doing this task?
I found it difficult to try and squeeze in the photos onto the poster. But I managed to squeeze them in at the end.

Did you learn anything new? if so explain.
There really wasn't anything new I had learned. But i have now gotten experience in making posters like these so that in the future, I can do the poster with ease.

What did you learn that you would use again?
I learned that showing where the 4 p's (product, price, place, promotion) are, it shows people who view the poster in the future can see what they are and what they mean.

If you were to do this project again, what would you have done differently?
I would have less photos and more information.



Student Reflection on the Marketing Task:

Student Reflection on the Marketing Task:Denis Slattery

What did you find most difficult about doing this task? What I found most difficult about doing this task was finding facts on the internet about it. The reason why this was so difficult was because of the subject it was on, being baby bell cheese. Information was limited on this subject

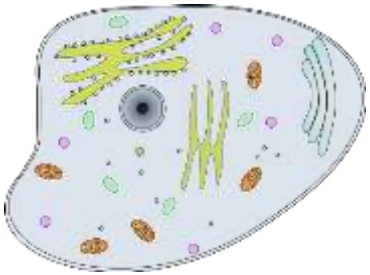
Did you learn anything new? if so explain. The thing that I learned most about was the variety of products that a company should have. In other words "Don't put all your eggs in one basket"

What did you learn that you would use again? The thing that I learned that I would use again would be that you should always work hard on your projects.

If you could do this project again what would you do differently? I would try and put as much as I could into the project, because I feel that I could have put more into it.

IRELAND

Science: Modelling the Cell



I. GENERAL DESCRIPTION

Country	**Ireland**
Author/Editor	Suzanne McMahon
School	Borrisokane CC
Subject	**SCIENCE**
LD Title	**Modelling the Cell**
Year group	First Year – Secondary
Duration	6 class periods
Short description	Students are learning about the structure and key elements of a cell and are using playdough to make models of cells and give feedback to each other
Hosted (URL)	https://resources.ats2020.eu/resource-details/LEDE/cell

II. Learning Design Macro-level

Digital Tools (affordances)
- Internet access
- Modelled internet search
- Reflective questions in portfolio

Tasks to develop these competences towards the learning outcomes

- Students learn about the structure of cells
- Notes provided in ePortfolio to support student understanding
- Students complete experiment to examine an onion cell under the microscope
- Students draw cells in their copies, labelling the diagram and upload images to portfolio
- Teacher shows a number of these in class to support student learning
- Students make models of cells
- Students provide feedback to each other

Skills and competences necessary to reach the expected outcomes

Targeted:
- Autonomous Learning: Evaluate process and results and provide evidence for achievement
- Creativity & Innovation: Innovating and creatively using tools and resources

Learning goals - expected leaning outcomes Body of knowledge (National curriculum)

5.1 Investigate the structures of animal and plant cells and relate them to their functions

- Identify/Recall all the parts of the cell
- Identify organelles in a cell: Nucleus, Vacuole, Cytoplasm, Cell membrane, Cell wall, Chloroplasts
- Relate parts of the cell to the function of each part of the cell
- Provide feedback for another group
- Show video of experiment to examine a plant cell.

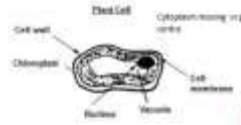
Leaning outputs – through all stages (assessment)

- Diagram of cell with teacher feedback and group discussion
- Model of cell developed and labelled with organelles and functions
- Formative feedback to other students

IV. Material, resources and students' artefacts

Cells

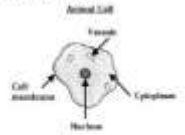
Plant cell



Photosynthesis:
Plants use light make food, need chemical chlorophyll

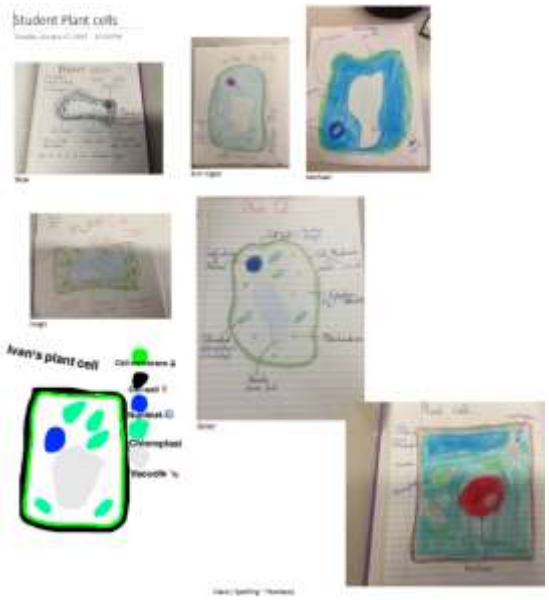
Both cells have
Nucleus: Controls all activities of the cell
Vacuole: Stores food
Cytoplasm: watery fluid
Cell Membrane: Control what enters and leaves cell.

Animal Cell



Different:
Plant cells only have chloroplasts???
Why: contain chlorphyll need to make food
Cell wall only in plant cell: give it strong rectangle shape
Larger vacuole: needs store food it makes

Student Plant cells



Examine a plant cell

Method.

1. **Prepare slide.**
2. **Peel thin layer of onion skin using a tweezers.**
3. **Place on the slide.**
4. **Add 2-3 drops of iodine to stain and see clearly.**
5. **Cover with a cover slip.**
6. **Using a microscope and different magnification lens draw diagram of a plant cell.**

Slide & Coverslip

Onion Cell

Microscope & Slide