



ATS2020

Assessment of Transversal Skills

ATS2020 – Assessment of Transversal Skills

ATS2020 TOOLKIT

How to implement the ATS2020 learning model
in your school and your classroom



September 2017

Co-funded by the
Erasmus+ Programme
of the European Union



ATS2020-Assessment of Transversal Skills 2020 WP7: Exploitation

ATS2020 TOOLKIT **How to implement the ATS2020 learning model in your school and your classroom**

ATS2020 (Assessment of Transversal Skills) Consortium
September 2017



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ISBN: 978-9963-0-9195-9

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Co-funded by the
Erasmus+ Programme
of the European Union

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INTRODUCTION



The **ATS2020 toolkit** aims to guide school leaders and teachers towards the implementation of the ATS2020 learning model in their schools with their students. It provides some general guidelines, along with step by step implementation suggestions. At the same time, it provides references to resources and tools that support the implementation, as well as examples and tips for good practice.

The guide consists of two parts. **Part A** discusses the basic elements of the learning model, so as to achieve a common understanding among all parties involved. **Part B** presents a step by step guide to support the schools and teachers for the ATS2020 implementation.

We wish you a good start and a constructive implementation. We hope that you, as well as your students, will enjoy the process and the output of your ATS2020 implementation.



Part A

ATS2020 Basic Elements



ATS2020 PROJECT

→ WHAT IS THE ATS2020 PROJECT

Assessment of Transversal Skills 2020 (ATS2020) is a policy experimentation project co-funded by the Erasmus+ programme (Key Action 3) of the European Union, for the period 1/3/2015 to 1/3/2018. The project consortium consists of 17 partners from 11 EU countries, and is coordinated by the Cyprus Pedagogical Institute.

The **ATS2020 project** explores the potential impact of the ATS2020 learning model intervention in schools, at a scale sufficiently large and diverse for valid conclusions, following a quantitative and qualitative evaluation methodology. During the school year 2016-2017, the ATS2020 learning model was implemented on a pilot basis in 10 of the project's participating countries, involving 224 schools, 747 teachers and 11.891 students. Teachers and students alike expressed their contentment and enthusiasm about their participation in the ATS2020 project, emphasizing how they have benefitted from it. You can watch a series of videos in which participants describe their experience and share their work, in the following link: (<https://www.youtube.com/watch?v=MkOed896a2E&list=PLMAHqLXrJSQop8Sh97QLDsLf2yGM1Ae6g>). The results of the data analysis of the experimentation can be found on the project website.

Through extensive dissemination activities, the project contributes to the growing discussion around the development and assessment of transversal skills within upper primary and lower secondary education. The experimentation evidence aims to help Ministries of Education and the European Commission to formulate informed policies and implementation strategies for the development and assessment of transversal skills across Europe.

For more information about the
ATS2020 project, visit the webpages:

<http://ats2020.eu>

<http://ats2020.eu/cyprus>

<https://resources.ats2020.eu>

In summary, the main outcomes of the project are:

1. A validated model for student learning and transversal skills assessment based on:
 - Age-suitable transversal competences;
 - National curricula;
 - Student-centered approaches for learning;
 - Scaffolding tools for innovative instruction and assessment;
 - Digital Environments and tools to tap technology affordances (e.g. ePortfolio, learning analytics, social networks, assessment rubrics).
2. Over 1,000 teachers experienced in implementing the model.
3. Professional development programme ready for deployment beyond the pilot schools.
4. An online repository with resources and tools developed specifically for the ATS2020 implementation, including learning designs and scaffolding tools.
5. Sound impact evaluation and subsequent policy recommendations at the national and EU levels.
6. Scalability models for policy makers at regional, national and EU levels.

→ The ATS2020 LEARNING MODEL

Preparing students for living and working in the 21st century requires education systems to provide citizens with a core body of knowledge along with a set of key competences. The rapid growth of digital tools used by the youth, challenges national ministries of education. Student exposure in web 2.0 tools, devices, and environments brings new affordances, challenges, opportunities, and demands new skills for teaching and assessment of, for and as learning. Education must reform to accommodate, facilitate and develop 21st century learning, teaching, assessment and skills¹. Education stakeholders agree on this “Opening up”; but many are at a loss for implementation and assessment, especially within national curricula.

¹Griffin, P., McGaw, B. & Care, E. (2012). The changing role of education and schools. In P. Griffin, B. McGaw & E. Care. (eds), *Assessment and Teaching of 21st Century Skills* (pp.1-15). New York: Springer

ATS2020 proposes a comprehensive learning model to enhance student transversal, 21st century indispensable skills, within the diverse EU national curricula, including provision of teachers with modern approaches and innovative tools for the assessment of these skills.

The ATS2020 extends and fleshes-up existing models, elaborating learning both as process and product. It introduces a web of learning activities leading to learning outcomes, supported by technological and scaffolding tools, extended and redesigned. Evidence of learning is being gathered using an ePortfolio three-level developmental process (repository, workspace and showcase)² with an embedded continuous reflection cycle of “my learning”³. Teachers and students collaborate and make evidence-based decisions while (re)designing instruction and learning.

My Learning (continuous, personal, reflective)

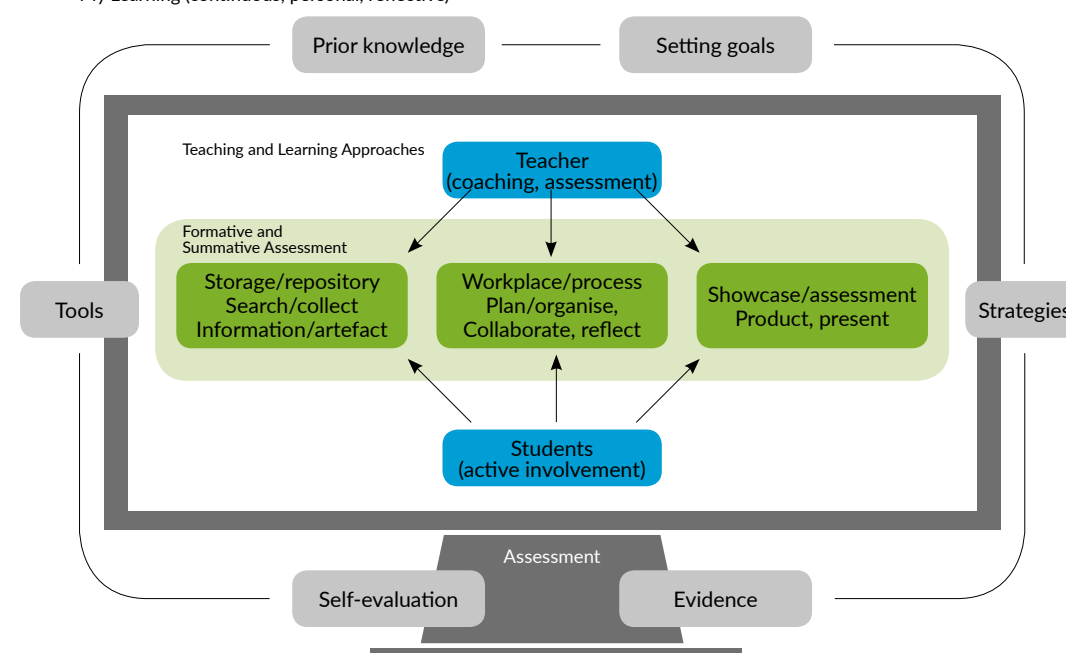


Figure 1: ATS2020 Learning and Assessment Model

²Abrami, C. Ph. & Barrett, H. (2005). Directions for research and development on electronic portfolios. Canadian Journal of Learning and Technology, 31(3). Available online at: <https://www.cjlt.ca/index.php/cjlt/article/view/26487/19669>

³As introduced in *EUfolio: EU Classroom ePortfolios* a project funded by the European Commission under the framework of the Lifelong Learning Programme (KA1 - Implementation of the European strategic objectives in Education and Training) (2013-2015).

In a nutshell, the ATS2020 learning model includes:

- A learning design process for the development of transversal skills (Information Literacy, Collaboration and Communication, Autonomous Learning, Creativity and Innovation, Digital Literacy) within the curriculum.
- Incorporation of digital technologies in the learning design process. More specifically, learning activities take place in digital environments (Mahara, Office365 OneNote), using digital sources and tools.
- Students maintaining a digital journal for their learning (*My Learning Journal*).
- Creation of ePortfolios by students, as well as assessment of the ePortfolios in each Learning Cycle.
- Assessment of students' skills, using formative assessment scaffolding tools (teacher assessment, peer-assessment, self-assessment).

→ BASIC ELEMENTS OF THE ATS2020 LEARNING MODEL

The ATS2020 learning model is based on and, at the same time, further promotes new innovative learning approaches enhanced by digital technologies. The learning model includes the following basic elements (Figure2): transversal skills; ePortfolio; students' active participation in the designing of their learning (*My Learning Journal*), Assessment **of**, **for**, and **as** learning; digital technologies enhanced learning.



Figure 2: Basic Elements of the ATS2020 Learning Model

TRANSVERSAL SKILLS - ATS2020 SKILLS AND COMPETENCES FRAMEWORK

What are transversal skills?

They are skills needed for the citizens of the digital society in a globalized context, both at a personal and a professional level. They include skills such as critical thinking, problem solving, working collaboratively, communicating effectively, innovating.

Education is transforming to accommodate these challenges. Students are placed at the centre of the learning process, while the teacher takes the role of a coach, facilitating learning through active participation. ATS2020, was based on existing skills frameworks, including the Digital Competence Framework by the Joint Research Centre (DigComp) and the ISTE Standards by the International Society for Technology in Education. It focuses on the following areas of competences:

- Information Literacy
- Collaboration and Communication
- Autonomous Learning
- Creativity and Innovation

Digital Literacy skills are activated through the use of digital technologies for the enhancement of the four competence areas. At the same time, the Autonomous Learning skills are developed through the *My Learning Journal*.

Figure 3 shows the transversal competences and skills which are under focus in the ATS2020 project.

ATS2020 - Areas of Competences and Skills

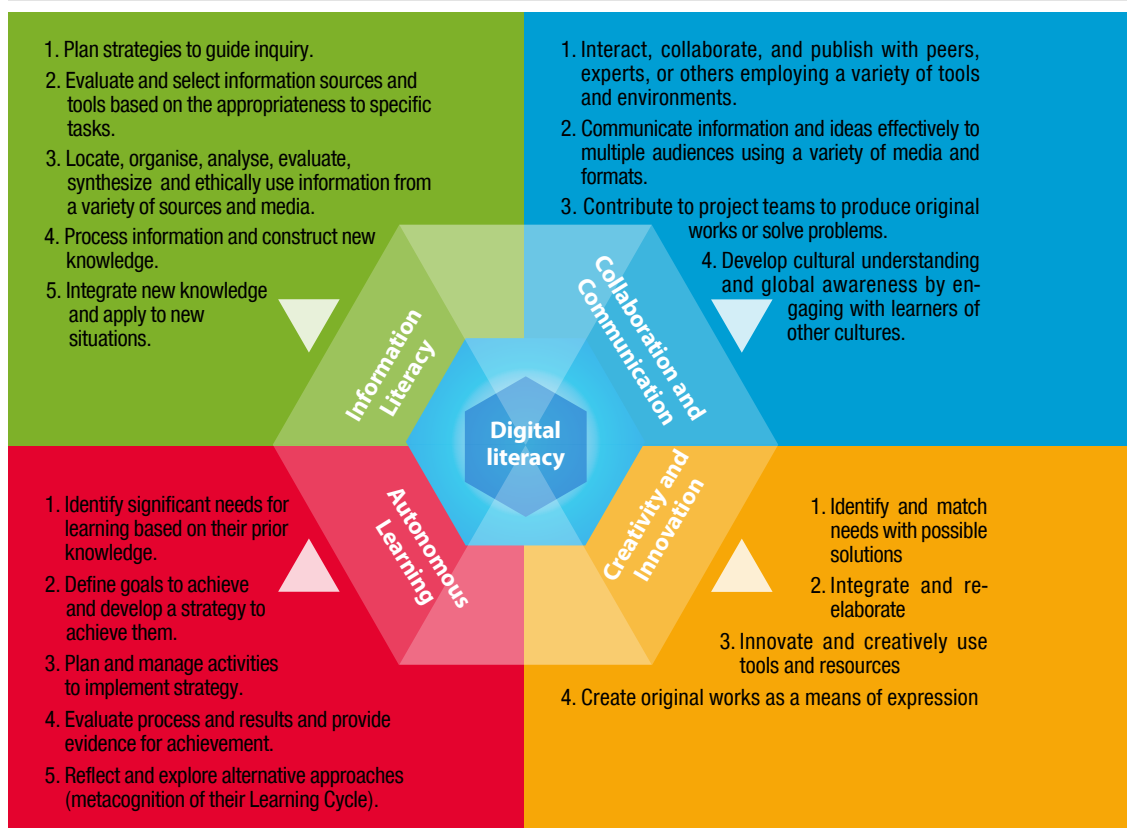


Figure 3: ATS2020 Areas of Competences and Skills

The ATS2020 Competences and Skills framework, including attainment goals for each skill (as shown in the above diagram), along with corresponding digital skills and attainment examples for each one, can be viewed in the following link:

<https://resources.ats2020.eu/resource-details/ADM/ats2020-framework>

Additionally, more information about transversal skills can be found in the link: <https://resources.ats2020.eu/transversal-skills>



TIP

Teachers develop and implement lessons in order to enhance students' transversal skills, in the context of the school curriculum. For each Learning Cycle (unit), teachers implement activities focusing on a number of skills from one competence area each time, while other skills are emerging.

Suggestion for a school year implementation:

- 1st Learning Cycle: Autonomous Learning (Emphasis on *My Learning Journal*)
- 2nd Learning Cycle: Information Literacy
- 3rd Learning Cycle: Collaboration and Communication
- 4th Learning Cycle: Creativity and Innovation

The same competences area might be selected in different Learning Cycles with the focus placed on different skills each time or on the same skills on a more advanced level.

ePORTFOLIO

For the purposes of the project ATS2020, ePortfolio has been adopted as defined in the framework of the European project EUfolio (2014).

"ePortfolio is student-owned dynamic digital workspaces wherein students can capture their learning and their ideas, access their collections of work, reflect on their learning, share it, set goals, seek feedback and showcase their learning and achievements".

EUfolio project (2014)

The ePortfolio can provide students the approach, as well as the digital environment that will allow them to cultivate and develop transversal skills, to follow a process of self-reflection and self-assessment, to cultivate skills of self-regulated learning. Additionally, the ePortfolio constitutes an innovative method of assessment of students' work and skills, since it presents students' course of learning and progress.

An ePortfolio can function in three levels: repository, workspace, and showcase. At the same time, it can incorporate the *My Learning Journal* for the students' planning of their own learning.

Useful information about ePortfolios and how they are used in the classroom can be found at: <https://resources.ats2020.eu/eportfolio>

Additionally, you can consult the teachers' guide of the European project EUFOLIO "EU Classroom ePortfolios" at:

<https://eufolioresources.files.wordpress.com/2015/04/eufolio-trainers-booklet-eng.pdf>

Figure 4, below, presents the main assessment criteria for ePortfolios, as developed for ATS2020:

ATS2020 - ePortfolio				
STRUCTURE				
Profile (e.g. photo, name, class, interests)	<i>My Learning Journal</i> (Prior Knowledge, Goals, Strategies, Evidence, Self-assessment)	Skills Self-assessment (e.g. scaffolding tool)	Feedback	Evidence with references (e.g. presentations, videos, documents, links etc.)
CONTENT				
Presentation (e.g. suitability of graphics, multimedia)	Description (e.g. the evidence is accompanied by explanations)	Evidence with reference/ relevant references (e.g. sources of information, the images or texts created by other authors are referenced with proper reports)		
USABILITY				
Use and accessibility (e.g. organization of content)	Navigation (e.g. links connection)	Use of language (e.g. spelling, grammatical rules)	Aesthetics (e.g. colour, background)	
CREATIVITY AND INNOVATION				
Presentation of content in an innovative and creative way				

Figure 4: Main assessment criteria of ATS2020 ePortfolios

Below (Figure 5 and Figure 6), you can see some examples referring to the structure and content of ePortfolios, which can provide some ideas about what is expected from an ATS2020 ePortfolio.

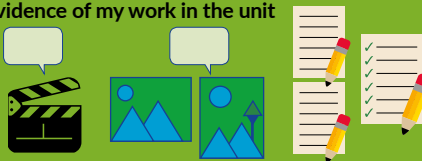


Learning Cycle 1 Teacher's name Subject Unit	Student's profile (e.g. name and surname, school, class, interests)		
My Learning Journal <ul style="list-style-type: none">• Prior Knowledge• Learning Strategies• Self-assessment/Reflection• Setting Learning Goals• Evidence			
Evidence of my work in the unit 		My skills 	
Feedback: ...		Self-assessment Scaffolding Tool 	

Figure 5: A sample of an exemplar ePortfolio for a specific Learning Cycle











School Year 2017-2018 Teacher's name Subject	Student's profile (e.g. name and surname, school, class, interests)			
My Learning Journal for ATS2020- My skills <ul style="list-style-type: none">• Prior Knowledge• Learning Strategies• Self-assessment/Reflection• Setting Learning Goals• Evidence				
Evidence of my work in the unit <div></div> <div><div>Learning Cycle 1</div><div>Learning Cycle 2</div><div>Learning Cycle 3</div><div>Learning Cycle 4</div></div>		My skills <div></div>		Self-assessment Scaffolding Tool <div></div>
Feedback: ...				

Figure 6: A sample of an exemplar Final ePortfolio (for the whole school year)

Samples of students' ePortfolios can be viewed in the link that follows, where the results of an ePortfolio contest among students who participated in the 2016-2017 implementation can be found:

<http://www.ats2020.eu/content/396-ats2020-students-get-awarded-for-their-eportfolios>

You can also watch the videos, in which students who participated in ATS2020 project, during the school year 2016-2017, present the ePortfolios that they created:

<https://resources.ats2020.eu/resource-listing?q=exemplar%20>

TIP

The students are expected to create ePortfolios for their learning. They will create an ePortfolio for each Learning Cycle (unit) they will be involved in, as well as a Final ePortfolio for their work throughout the year, in which the separate ePortfolios for each Learning Cycle will be included. They will also be expected to share their ePortfolios with their teachers and classmates in order to receive feedback.

The teacher is expected to assess the ePortfolios created for each Learning Cycle as well as students' Final ePortfolios, by utilizing the *Assessment Scaffolding Tool for Students' ePortfolios*.

MY LEARNING JOURNAL

The *My Learning Journal*, as a tool of ATS2020, places students at the centre of learning by engaging them in a repeated process during which they design their own learning. During this process, students write down their prior knowledge

about the topic that they engage in; they set their learning goals; they develop strategies for achieving these goals; they set assessment criteria as well as the learning evidence that they need to collect. In the end, they reflect on the process that they have followed and assess their learning. This is a circular and continuous process. Students are expected to design and complete the *My Learning Journal* for each Learning Cycle, as well as for the whole school year. *My Learning Journal* for the school year should refer to the transversal skills that students will focus on, as well as their whole experience in ATS2020. Each *My Learning Journal* is gradually developed and redesigned, as needed.

TIP

It is recommended that for each entry in the *My Learning Journal*, students note down the date and time of the particular entry so that they are able to follow the progress of their planning, and the course of their learning.

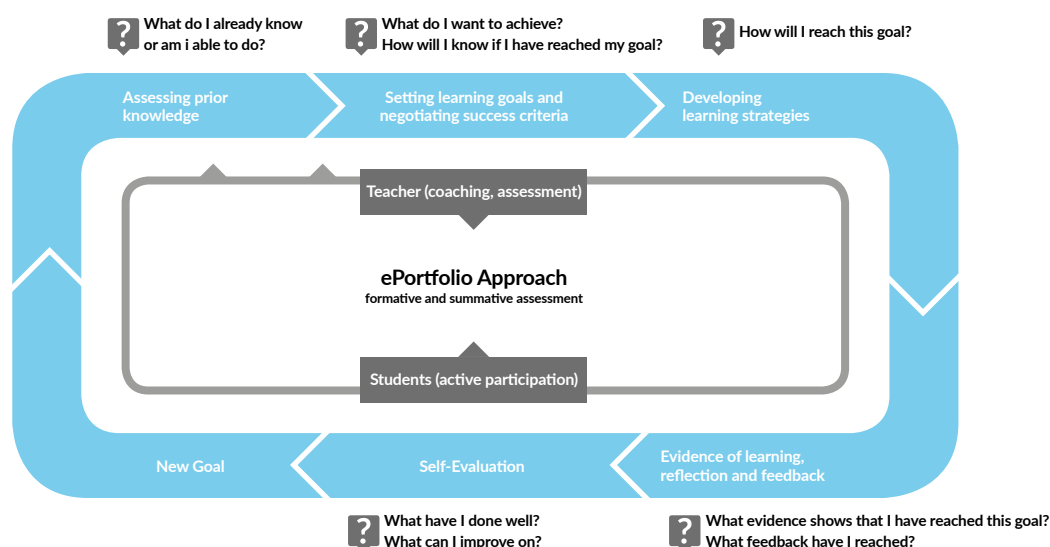


Figure 7: My Learning Journal

You can view an offline version of the *My Learning Journal* at the following link:
https://resources.ats2020.eu/resource-details/ADM/learning_journal_en

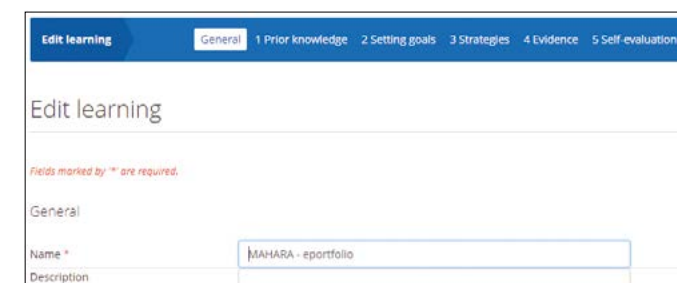


Figure 8: A screenshot of My Learning Journal in Mahara

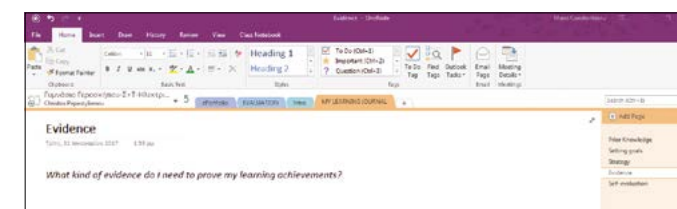


Figure 9: A screenshot of an entry of My Learning Journal in OneNote Class Notebook

FORMATIVE ASSESSMENT - ATS2020 ASSESSMENT

Assessment can be an important supportive tool for learning and at the same time a mechanism for individual empowerment.

Assessment **of** learning involves approaches that assume the role of tools and provide a frame for the collection of evidence of learning, based on a specific and systematic process. Assessment **for** learning and **as** learning includes approaches that might be considered as tools for learning, providing opportunities for students to develop new skills during their learning process.

Some learning approaches that support assessment **for** learning and **as** learning include ePortfolios, inquiry-based learning, immediate and constructive feedback, self and peer assessment, reflective processes with the support of ICT, student response systems (SRS), learning analytics.

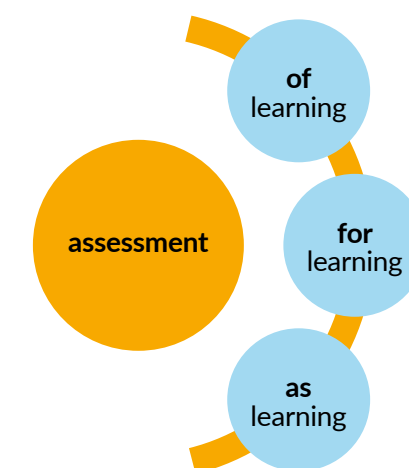


Figure 10: Assessment as, for and of learning

Formative assessment in particular, has been prevalent in the educational discourse over the past decades, shifting the attention towards assessment practices that aid the learning and teaching process: “Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended instructional outcomes”⁴. Feedback is an integral part of formative assessment that requires teachers to develop designing skills, so as to be specifically effective in designing and providing opportunities for their students to self-monitor and self-regulate their learning”⁵. Formative assessment is always important for the progress of a learner, but especially so when the learning goals refer to transversal skills. Thus, the ATS2020 model includes innovative scaffolding assessment tools **for**, **as** and **of** learning.

eAssessment

The evolution of information and Communication Technologies (ICT) is deeply re-shaping society, giving rise to new competence needs. ICT can establish a link between teaching, learning and assessment providing an improved framework where the three elements interact⁶. This interaction resulted to a new form of assessment; eAssessment. eAssessment is a form of assessment that is completely advanced using ICT, and students’ progress is constantly monitored using different types of tools.

eAssessment tools are likely to provide additional opportunities for better understanding of students’ performance and achievements, as well as for assessment of students’ 21st century skills. These eAssessment instruments or rubrics facilitate reflective processes, such as continuous planning of peer-assessment, evaluation and feedback sharing; therefore they provide a representation of learners’ ongoing progress. Furthermore, eAssessment opens

In addition, you can find further information on formative assessment at:

<https://resources.ats2020.eu/formative-assesment>



⁴ CCSSO (2008). Formative assessment: Examples of practice. A work product for the Formative Assessment for Students and Teachers (FAST) State Collaborative on Assessment and Student Standards (SCASS). Council of Chief State School Officers (CCSSO): Washington, DC

⁵ Dixon, H., Hawe, E., & Parr, J. (2011). Enacting assessment for learning: the beliefs practice nexus. Assessment in Education: Principles, Policy & Practice, 18(4), 365–379

⁶ Ridgway, J., McCusker, S., & Pead, D. (2004). Literature Review of e-Assessment. Bristol, UK: Nesta Future Lab.

the way to new assessment tools and approaches in order to tackle new skills and competences developed in addition to knowledge, something that was difficult to assess in more traditional assessment approaches.

Some examples of eAssessment include: ePortfolios, computer-based adaptive testing, WebQuests and simulations.

The *My Learning Journal*, partly constitutes a tool of initial assessment used to determine what each student already knows, what kind of misconceptions is likely to have, what he/she would like to achieve. This information helps the teacher to assess each student’s progress at the end, and also to update the learning process in order to fill in existing gaps as far as prior knowledge is concerned. Additionally, the students’ self-assessment in *My Learning Journal* promotes the student’s self-reflection.

The ePortfolio also functions as an assessment tool, either to be used by the teacher or by students as a self-assessment tool. The ePortfolio allows for the course of learning and progress of each student to become visible. It also provides an idea of the skills that have been worked on.

For assessment purposes of students’ competences and skills, specific scaffolding tools have been developed, which can be adjusted appropriately, and be utilized by participating teachers.

TIP

The table below presents the scaffolding tools that have been developed, in order to be used for the ATS2020 implementation.

Formative Assessment Scaffolding tools			
What	When	Who	File
Assessment Scaffolding Tool for students’ ePortfolios	For each unit and at the end of the Learning Cycles (at least 3+ the Final one)	Teacher	https://resources.ats2020.eu/resource-details/SCTS/assessmentToolPortfolio
Formative Assessment Scaffolding Tool of Students’ Competences and Skills for Teachers	For each unit and at the end of the Learning Cycles (at least 3 + the Final one)	Teacher	https://resources.ats2020.eu/resource-details/SCTS/assessment-scaffolding-tool
Formative Self-Assessment Scaffolding Tool of Students’ Competences and Skills	For each unit and at the end of the Learning Cycles (at least 3 + the Final one)	Students	https://resources.ats2020.eu/resource-details/SCTS/assessment-student

Formative Assessment Scaffolding tools (additional)			
Formative Self-Assessment Scaffolding Tool of Students' Competences and Skills-Extended version	When deemed necessary by the teacher	Students	https://resources.ats2020.eu/resource-details/SCTS/assessment-skills-student-extended
Self-Assessment Scaffolding Tool for Students' Autonomous Learning Skills (My Learning Journal)	For the assessment of students' My Learning Journals whenever is deemed necessary by the teacher	Students	https://resources.ats2020.eu/resource-details/SCTS/MyLearningJournal_assessment

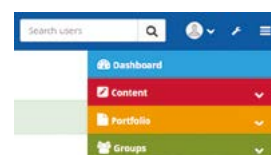

ONLINE LEARNING ENVIRONMENTS

The online learning environments selected for ATS2020 are the open-source environments **Mahara** and **Office365 OneNote Class Notebook**.

For the purposes of ATS2020, the Mahara environment has been adjusted accordingly (mahara.ats2020.eu) to meet the requirements of the learning model. A closed (private) secure environment is provided, which allows users to create and save websites and documents, to upload and download files, to create learning groups providing them material and lesson activities, to incorporate online tools, to participate in forum discussions, to provide and receive feedback, to complete the *My Learning Journal*, to put together ePortfolios in order to showcase their assignments and artefacts.

The Microsoft Office 365 group of online tools and applications has also been adjusted, according to the requirements of the learning model (o365.ats2020.eu). The Office 365 environment utilises OneNote Class Notebook, OneDrive, SharePoint, Yammer, Lync as well as other embedded Web Apps and Office365 processing programs. A closed (private) secure environment is provided which allows users to create, save files, to organize their lessons in OneNote Class Notebook (materials, structure of activities, provision of feedback, utilisation of collaboration space), to complete the *My Learning Journal*, and create their ePortfolios.

Here follows a brief overview of the two learning environments:

Overview of the online learning environments		
	O365 OneNote Class Notebook	Mahara
Network speed requirements	Higher required network speed than Mahara in order for it to run efficiently.	
Interface environment	Work through web browser, and also through OneNote software installed on the computer.	Works only through web browser.
User Environment	<p>There are separate units in which pages can be created.</p> <p>There are 3 different spaces which provide different usage rights for editing and viewing (content library, collaboration space, student's personal space).</p> <p>The pages to host students' My Learning Journals and ePortfolios need to be created</p> <p>The pages look like an endless MS word page.</p>	<p>Mahara works with menu/submenu (control panel, content, portfolio, groups).</p> <p>There is a dedicated space for students' ePortfolios as well as for the My Learning Journal.</p> <p>Specific groups can be created for the Learning Cycles, the pages of which can host materials and activities of the Learning Cycles.</p> <p>Pages are structured by using the drag and drop function.</p> <p>Mahara pages can be exported as a link so that they can function as webpages.</p>
Students' collaboration	<p>There is a collaboration space where many people can work at the same time.</p> <p>It's possible for the author of each modification to be visible.</p>	<p>One or more people can work on the same page at the same time.</p> <p>It's not possible for the author of each modification to be visible.</p> <p>A forum is provided.</p>
<div> <div>Mahara menu</div>   </div>		

Mahara page

Group homepage | Edit content

Display page

Edit content Edit layout

This area shows a preview of what your page looks like. Changes are saved automatically.
Drag blocks onto the page to add them. You can then drag them around the page to change their position.

+ Text
+ Image
+ Media
+ Journals
+ General
+ External

+ Τουρισμός στη Κύπρο
+ Γεωγραφία

Επισκεφθείτε τη σελίδα συλλογές για τις δραστηριότητες του μαθήματος!

OneNote Class Notebook menu and page

	Printers
Main parts of printing system	
Material to be used	
Accepts sheets of paper	YES/NO
Accepts role papers	YES/NO

Evidence

Tpitz, 31. November 2017 1:55 pm

What kind of evidence do I need to prove my learning achievements?

You can view the introductory lesson conducted during the school year 2016-2017 at:

- OneNote Class Notebook:

https://resources.ats2020.eu/resource-details/GUTS/intro_office

- Mahara:

https://resources.ats2020.eu/resource-details/GUTS/intro_mahara

TIP

Participating teachers are expected to select the platform that they will utilize during the implementation of their lessons.

After they select a platform, they should send, by using a given template, the students' data (whose parents or guardians have signed a consent form) so that students' accounts for the online platform can be created. Teachers may select a digital platform once they have participated in the first training.

An introductory lesson will also take place, intended to get students acquainted with the environment and the basic functions of the platform.

During implementation, teachers and students will utilize the strengths of the platform that will be selected, for conducting the lessons, and implementing the ATS2020 learning model. In this respect, they are expected to design and organize materials and activities in the online learning environment (Mahara or OneNote Class Notebook in Office365)

Teachers can be assisted by an appointed trainer in adjusting their learning design in the online learning environment.

Feedback

The teacher can insert comments anywhere in the pages. He/She can insert stickers and/ or record his/her feedback.

The teacher can provide feedback only in the comments' space.



Part B

A step by step guide for the
implementation of the ATS2020
learning model



GENERAL INFORMATION

→ TO WHOM ATS2020 IS ADDRESSED

ATS2020 is addressed to 10-15 year old students of Primary and Secondary Education (5th, 6th Grade Primary, 1st, 2nd, 3rd Grade Secondary School). The schools that are interested in implementing ATS2020 should inform their teachers in order to schedule at the beginning of the school year which classes and teachers will participate.

To achieve greater efficiency, the schools are encouraged to implement the ATS2020 learning model in more than one subject in each class, with the participation of one or more teachers. Schools can choose to follow one of the following implementation models:

- 1 teacher in 1 class
- 2 teachers in 2 classes
- 2 or more teachers in 1 class
- 1 teacher in 2 or more classes

→ CONDITIONS FOR THE IMPLEMENTATION OF ATS2020: SCHOOL INFRASTRUCTURE

The ATS2020 learning model promotes the development of transversal skills among students by using online learning environments. Students, as part of the activities

in the context of the school curriculum, are expected to complete the *My Learning Journal*, as well as to prepare ePortfolios.

A school, in order to be in position to implement the ATS2020, would have to make available for every lesson a number of computers/laptops/tablets that would allow individual and group work, as well as continuous internet connection. Schools may implement a “Bring

your own device” approach, and allow each student to bring their own personal laptop/tablet in class. In this case, schools should follow the necessary procedures (ensure parents’ and guardians’ consent, drafting of implementation rules etc.) and, of course, ensure wireless or cable internet access.

TIP

ATS2020 pilot implementation indicated that the ATS2020 learning model seemed to have more impact when implemented by at least two teachers in the same class. This facilitates co-teaching and supports the creation of complete ePortfolios by students.

TIP

During ATS2020 pilot implementation (2016-2017) it appeared that 80-minute lessons were a better choice for the effective implementation of ATS2020, as they allowed for the implementation of experiential learning activities, collaboration, discussion, reflection and project implementation by students. This requires some flexibility in the school timetable.

→ EXPECTED BENEFITS FROM THE ATS2020 IMPLEMENTATION

It is expected that, through the ATS2020 learning model, students will develop essential transversal skills, necessary for every citizen of the 21st century, along with the core curriculum knowledge. These transversal skills include Information Literacy, Collaboration and Communication, Autonomous Learning, Creativity and Innovation and Digital Literacy Skills.

At the same time, teachers who will implement the ATS2020 learning model will have the opportunity, among other things, to:

- try **innovative** methods and learning tools, such as the ePortfolio creation, the *My Learning Journal* process etc., in order to help their students develop transversal skills.
- develop themselves **digital and transversal skills**, by utilizing contemporary digital technologies, as well as online learning environments in the teaching and learning process.
- further support their **professional learning**, by participating in a series of workshops, seminars, presentations, conferences etc.
- further **access** supportive materials, educational sources, as well as online learning tools.
- receive **continuous support** from appointed trainers (where applicable), during the whole implementation period. This support will include one-to-one meetings at schools, ongoing communication between trainers and teachers, as well as provision of assistance to teachers for the design and adaptation of curriculum learning cycles based on the guidelines of ATS2020 learning model, the use and utilization of digital learning environments and the adaptation and completion of the formative assessment scaffolding tools that will be utilized.
- participate in **local and European Teacher Learning Communities** for the exchange of ideas as well as good practices.
- receive a **certificate of participation** in the project upon completion of ATS2020 learning model implementation (certificates will be awarded to

participating schools, as well as to participating teachers and students).

- be recognised and awarded for **exemplar learning designs** that will be developed.
- support their students' ePortfolios in order for them to receive **recognition** and be awarded.
- have the chance to upload learning designs, as well as other materials to the ATS2020 resources portal (<http://resources.ats2020.eu>) and other **educational content repositories** such as "Photodentro" (<http://photodentro.pi.ac.cy>). In this way, they will be able to contribute to the enrichment of the existing resources.

→ RESOURCES AND TOOLS

Project webpage: <http://ats2020.eu>

You can locate educational resources for teaching and learning for the incorporation of the learning model ATS2020 at: <https://resources.ats2020.eu>



Figure 11: ATS2020 resource portal (<http://resources.ats2020.eu>)

ESSENTIAL STEPS FOR THE ATS2020 IMPLEMENTATION IN YOUR SCHOOL

In order to implement the ATS2020 learning model in your school, you should take some preparatory action before the implementation process starts with the actual implementation of the Learning Cycles. Implementation will be completed with reflection as well as with the sharing of results and experiences.

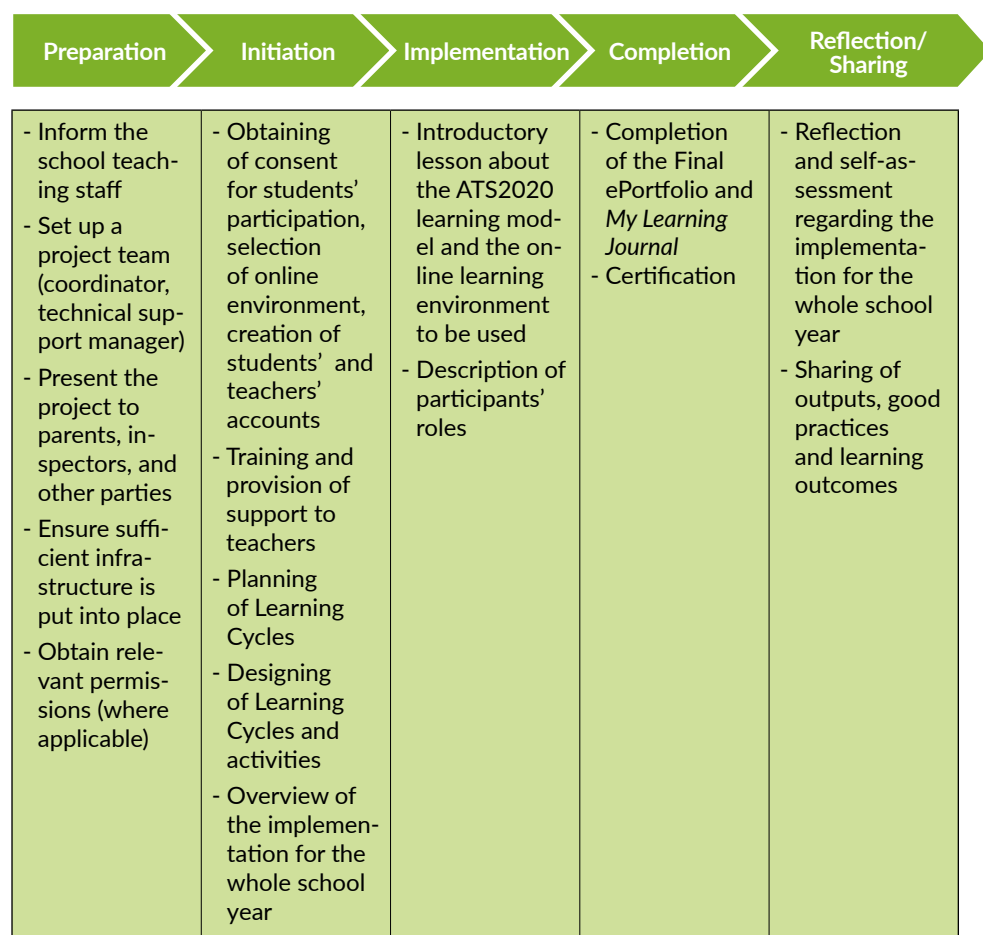
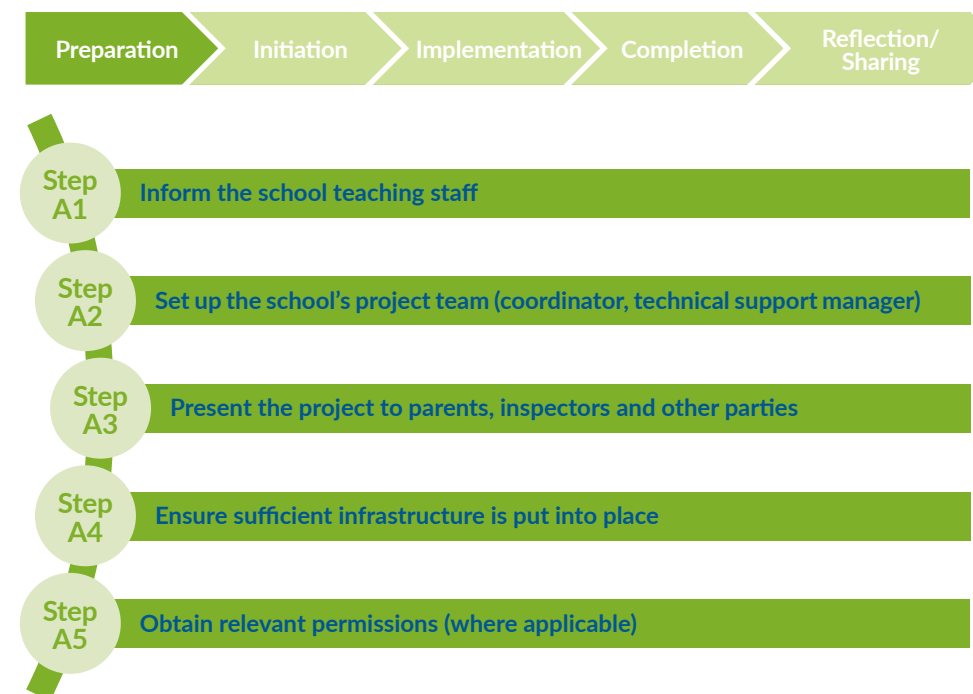


Figure 12: Implementation of the ATS2020 learning model

PREPARATION FOR IMPLEMENTATION



→ A1 – INFORM THE SCHOOL TEACHING STAFF

First, the school teaching staff needs to be informed and the school as a whole to express their interest for the ATS2020 learning model implementation. For informing the school teaching staff, you may arrange with an ATS2020 project officer (or trainer) to visit the school, if this is convenient, or to use the presentation that has been prepared, which contains information and instructions on how to present the project. The presentation can be adjusted to be used by the school coordinator or any other teacher.

Informative presentation of ATS2020 learning model and its implementation (including instructions):

<https://resources.ats2020.eu/resource-details/OTH/school-pps>



TIP

Teachers of different subject areas, who collaborated for the implementation of ATS2020 learning model in the same class, considered it a very good practice since students were involved in the implementation of the model through different subjects.

Also, teachers who chose to implement the learning model in 80 and 90 minutes lessons considered this option to be more efficient, since it offered a more flexible timeframe for the implementation of experiential learning activities, group work, discussions, reflection as well as for the development of students' projects.

→ A2 - SET UP THE SCHOOL'S PROJECT TEAM

Thereafter, the school project team should be defined, which would include the coordinator as well as the technical support manager (where there is no school coordinator, this responsibility should be taken by a teacher who has knowledge and skills in digital technologies and would be in position to support the teachers when needed).

→ A3 - PRESENT THE PROJECT TO PARENTS, INSPECTORS AND OTHER PARTIES

It is equally important to inform the parents about the school's intention to participate and the potential benefits for their children. This can be done by using the informative presentation or by sending the informative document that you can print or ask from the project country coordinator. If parents and guardians are not fully informed, it would be difficult for you to ensure their support and consent to students' participation.

Providing information to all interested parties of the school unit, including the appointed inspectors (of the corresponding level of education) and engaging them from the very beginning in the process, is crucial in securing support throughout the process.

Informative documents about the ATS2020 learning model:

- Brochure

<https://resources.ats2020.eu/resource-details/%20OTH/Brochure>

- Leaflet

<https://resources.ats2020.eu/resource-details/OTH/leaflet>



→ A4 - ENSURE SUFFICIENT INFRASTRUCTURE IS PUT INTO PLACE

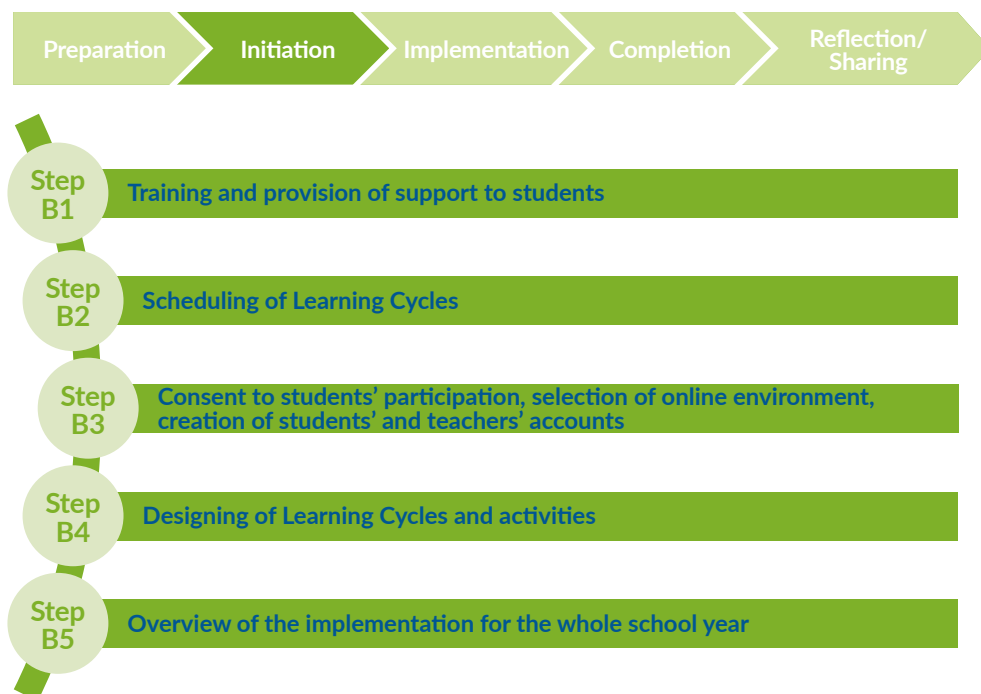
Through the pilot implementation, infrastructure appeared to be a significant factor. Access to computers (or other digital devices, such as portable computers, tablets, smartphones) as well as a good-quality internet connection are crucial to successful implementation.

The role of the school management is very important in supporting this effort and facilitating flexible practices concerning the daily schedule of the school unit (e.g. curriculum, access to computer labs etc.).

→ A5 - OBTAIN RELEVANT PERMISSIONS (WHERE APPLICABLE)

According to the regulations governing the Education system, as well as of the Department of the Education to which the school belongs, it is likely that special permissions should be requested regarding the creation of students' accounts in online environments, the dissemination of materials etc. It is important that the school management is informed and the proper procedures are followed at all times.

INITIATION



→ B1 - TRAINING AND SUPPORT TO TEACHERS

The training of the teachers of participating schools would have to ensure that teachers understand the ATS2020 learning model and its basic features. Additionally, through the training and support that they will receive, teachers should be able to design or modify Learning Cycles according to the ATS2020 learning model.

THE ATS2020 LEARNING MODEL AND ITS BASIC ELEMENTS

ATS2020 provides a comprehensive learning model for the enhancement of student indispensable transversal skills within curricula, and offers new approaches and innovative tools to teachers for the development and assessment of these skills.

ATS2020 extends and highlights existing models, by approaching learning as a process as well as an outcome, and by developing a set of learning activities

and technological and supportive tools, which are evaluated, extended and redesigned. Learning is evidenced through the process of ePortfolio creation on three levels (repository, workspace and showcase), while a continuous *My Learning Journal* is embedded in the process as a reflection cycle.

Teachers are expected to study the learning model and its basic elements. For this purpose, in the Part A of this toolkit, an introduction to the learning model and its basic elements is provided. A teachers' training booklet has also been developed. Additionally, there is rich material available, resources and learning suggestions in the project's online space. A webinar for teachers is also foreseen.

ATS2020 Training booklet for teachers:

https://resources.ats2020.eu/resource-details/ADM/training_booklet



LEARNING DESIGN PROCESS

For the designing of the Learning Cycles based on ATS2020 model, the methodology of Visualised Learning Design has been adjusted for the needs of the project. More specifically, teachers are expected to develop their design on three levels: macro-level, meso-level, micro-level. The initial design, where teachers are expected to illustrate their overall design on the macro-level, connects the objectives of the curriculum (knowledge and subject specific skills) with the ATS2020 targeted transversal skills, the activities that they will implement, the expected learning outcomes, as well as the assessment that they are planning to apply (Figure 13).

The teachers who will participate in the ATS2020 project will have to prepare their learning design for each Learning Cycle (unit) or to modify learning designs that have been already developed, accordingly. In developing their learning designs, teachers are expected to take into consideration all basic elements of the ATS2020 learning model (ePortfolio, assessment as/for/of learning, transversal skills, digital technologies etc.).

ATS2020 learning design:

- Macro-level: <https://resources.ats2020.eu/resource-details/ADM/macrolevel>
- Learning designs: <https://resources.ats2020.eu/learning-designs>
- Students' ePortfolios: <https://resources.ats2020.eu/resource-details/%20LEDE/5A42B3171FC99284E38EA1F66C113462>

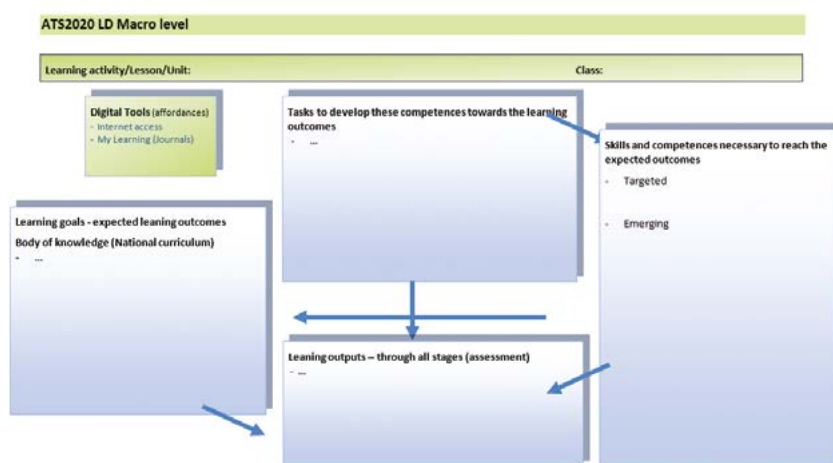


Figure 13: ATS2020 macro-level learning design template

More information about learning designs, templates, examples, as well as existing learning designs with accompanying material and sample of students' work can be found in the online resources portal and the teacher's booklet.

TIP

Teachers who will implement the ATS2020 learning model are expected to design and develop learning designs (on the macro-level) for at least 2 Learning Cycles as follows:

- Each Learning Cycle may last about 4-6 periods.
 - Learning Cycles should be completed by the end of the school year.
 - Learning Cycles should target, through the curriculum learning objectives, the development of transversal skills (as mentioned in the ATS2020 learning model).
 - Each Learning Cycle should target specific skills.
- The following is recommended for first timers:
- In the 1st Learning Cycle emphasis should be placed on Autonomous Learning skills with the utilization of the *My Learning Journal* or/and Information Literacy skills.
 - The 2nd Learning Cycle should target skills of one of the other ATS2020 areas of Competences and Skills (Collaboration and Communication, Creativity and Innovation). In case Information Literacy is selected for a second time the same skills should be cultivated for a second time, or other skills to a greater extent.
 - Each Learning Cycle should include activities pertaining to the completion of the *My Learning Journal*, as well as the creation of the ePortfolio, and also the completion of formative assessment scaffolding tools.
 - ICT should be incorporated in the learning designs so as to help students develop digital skills, and benefit from the capacities of the online learning environment in use, as well as of the new technologies.

Teachers are expected to share, negotiate, and re-elaborate the learning design, according to the feedback received.

➔ B2 - PLANNING OF LEARNING CYCLES FOR THE SCHOOL YEAR

For better planning of the year, the teachers are expected to prepare their initial plan that would include the units that they are going to work with, the timeframe of implementation, as well as the skills that they are planning to focus on. Below, you can view a table for the planning of the Learning Cycles as far as implementation of ATS 2020 learning model is concerned in a school year (figure 14).

Planning of Learning Cycles for the implementation of ATS2020 learning model for the school year			
School:			
Name of teacher:			
Subject:			
Class:			
Online Learning Environment to be used:			
	Unit (based on the curriculum for the specific subject)	Time Period e.g. 1st and 2nd week of November	Targeted skills
ATS2020 Introductory lesson (2 teaching periods)	Online Learning Environments (ICT/Informatics class)		Autonomous Learning skills, digital skills
Learning Cycle 1			Information Literacy
Learning Cycle 2			
Learning Cycle 3 (if there are resources available)			
Learning Cycle 4 (if there are resources available)			

Figure 14: Planning of Learning Cycles for the implementation of ATS2020 learning model

It's important to allow time for the students to familiarize with the ePortfolio process, with the online learning environment, as well as with the *My Learning Journal*.

Prior to the commencement of the Learning Cycles, a lesson should take place for

TIP

During the pilot implementation of the project, it emerged that 80 – 90 minutes lessons were a better option for the successful implementation of ATS2020, as they allowed more time for students to engage in experiential learning activities, collaboration, discussion, reflection, and project work.

Additionally, in cases where 2 (or more) teachers implemented the ATS2020 learning model in the same class, the students seemed to have benefited more.

Both practices require some flexibility, in terms of the school timetable.

introducing students to the ATS2020 learning model, to the process of creating an ePortfolio in the online learning environment that will be used (Mahara/o365 OneNote Notebook), as well as to the *My Learning Journal* (see step B5).

My Learning Journal aims to introduce students to the designing of their learning, through a continuous and repetitive process. Through this process, students are expected to develop Autonomous Learning skills, and at the same time, through the formative assessment of the process, they receive continuous feedback from the teacher (or classmates), assess their designs, and redesign based on their needs.

TIP

Incorporating the *My Learning Journal* in each Learning Cycle as a separate activity, allows for time to be dedicated for the completion of the relevant aspects. Moreover, time is allowed for the utilisation of the teacher's feedback for re-elaboration when needed.

The first Learning Cycle that will be implemented may target Autonomous Learning skills. Through this cycle teachers can guide their students through the *My Learning Journal* to setting goals and strategies, selecting evidence of learning, as well as the assessment process.

My Learning Journal should be incorporated in all Learning Cycles as a separate activity, and sufficient time should be allowed in order for the students to complete the different entries. It's important that the students visit their Journals regularly, and complete the different entries according to the progress that they are making. It is recommended that, for each entry, they write down the date and time, so that the progress of designing the learning process is depicted. In order for the students to be able to respond efficiently to the requirements of the *My Learning Journal*, especially if they are new to this process, it would be a good idea that the first Learning

Cycle is focused on Autonomous Learning. In this way, the teacher would get the chance to guide his/her students in setting goals as well as a strategy for achieving them, and in selecting evidence of learning and assessing themselves. In this context, he/she can also utilize the formative assessment scaffolding tool that has been especially designed for this particular purpose (https://resources.ats2020.eu/resource-details/SCTS/MyLearningJournal_assessment).

It is recommended for schools and teachers who are using the ATS2020 learning for the first time, that the preparation of the learning cycles for the school year run according to the following scheduling, as far as the targeted skills are concerned:

1st Learning Cycle: Emphasis to be placed on the Autonomous Learning Competences and Skills area, so that students are prepared to develop skills that they would need to implement efficiently in all Learning Cycles.

2nd Learning Cycle: Emphasis to be placed on Information Literacy. Learning activities include researching information, and utilizing it for constructing knowledge, and creating content.

3rd Learning Cycle: Emphasis to be placed on Collaboration and Communication skills. Students will have already gained experience from the ePortfolio process, and they will be able to focus more efficiently on these skills.

4th Learning Cycle: Emphasis to be placed on Creativity and Innovation skills. It is expected that as the school year is coming towards its end, the students will have already developed significant skills. At this stage, through creative activities, they will be able to focus more intensively on the development of Creativity and Innovation skills.

It is noted that during each Learning Cycle, multiple skills are developed (emerging) apart from the targeted ones.

In cases, in which the students have already developed certain skills to a certain level, the teacher should be able to define the level of proficiency of the targeted skills.

Downloadable document of a summary planning of Learning Cycles for implementation of the learning model, during the school year 2017-2018:

<https://resources.ats2020.eu/resource-details/ADM/Planning>

→ B3 – CONSENT TO STUDENTS' PARTICIPATION, SELECTION OF THE ONLINE LEARNING ENVIRONMENT, CREATION OF STUDENTS' AND TEACHERS' ACCOUNTS

CONSENT TO STUDENTS' PARTICIPATION

For the participation of the students in the project, accounts will be created in the online environment that has been selected to support the ePortfolio process at the school. For this purpose, teachers should inform parents and guardians, present them with a consent form (<https://resources.ats2020.eu/resource-details/ADM/Template-Consent-form-Exp>), answer potential questions and collect those from all parents. It is noted that students who will not be granted their parents' consent, will participate in the lessons normally, under differentiated conditions, so as they can complete all assignments offline.

For the purposes of the ATS2020 learning model two online learning environments have been selected, that can support the basic elements of the learning model, as well as of the ePortfolio process: Mahara and Office365 OneNote Class Notebook. These two environments have been adjusted to the needs of the project. The *My Learning Journal* has also been embedded:

- Online learning environment Mahara: mahara.ats2020.eu
- Online learning environment Office365 OneNote Class Notebook: o365.ats2020.eu

Once you decide which online environment to use with your students, the project coordinator in your country will be able to grant you access and create accounts for participating teachers and students, for the purposes of the project. In case you need any other information about the creation of accounts, you can contact the project team at info@ats2020.eu

It is noted that schools can use online environments of their own preference, provided that the preferred environment can support the essential elements of ePortfolio (e.g. assessment of students' content, workspace, discussion tools, uploading of content, *My Learning Journal* etc.).

TIP

You will be expected to complete an Excel sheet with the students' data, and also state for each student whether he/she has his/her parent's or guardian's consent for participation in the project.

Following this, accounts will be created for the online learning environment that you will have already selected to use (Mahara/ o365), and thereafter you will receive information about the usernames and passwords of each student.

→ B4 – DESIGN OF LEARNING CYCLES AND ACTIVITIES

Each teacher designs the Learning Cycles that he/she has planned to implement with his/her students. Starting with the macro-level, initially he/she sets the learning goals of the specific curriculum unit he/she has chosen. Then, he/she selects the skills that he/she is going to target, which will also define the activities he/she will design. The digital technologies and tools that will be used should support and reinforce the activities designed. For the design of the macro-level, you can use the template presented in B1 step.

Once the summary design of the unit has been put on paper, the teacher then analyzes every activity according to the learning goals, the expected outcomes as well as the assessment (meso-level)

(<https://resources.ats2020.eu/resource-details/ADM/mesolevel-template>).

Examples of macro-level learning designs can be found at:

<https://resources.ats2020.eu/resource-listing?q=Macrolevel%20Learning%20Designs&category=LEDE&age=&country=&edu=&focus=&learning=&subject=&perpage=5&sortby=title>

Learning design templates can be found in the following links:

- Macro-level
<https://resources.ats2020.eu/resource-details/ADM/macrolevel>
- Meso-level
<https://resources.ats2020.eu/resource-details/ADM/mesolevel-template>
- Micro-level
https://resources.ats2020.eu/resource-details/ADM/LD_template

At the end, at the micro-level, the whole unit is described in detail, including description of each activity separately, the duration, the class setting, the role of the teacher and students.

Once you complete the learning design, you can proceed with the development of activities, and of the supportive materials in the online learning environment that you will use (mahara.ats2020.eu or o365.ats2020.eu). It is expected that, as you proceed with the development and implementation, you will often need to revise the initial design.

In each Learning Cycle, each student is expected to complete the *My Learning Journal* as well as his/her ePortfolio for that particular Learning Cycle, in which

TIP

It is important to share and discuss your initial design with your supporter (trainer) or colleagues, and re-elaborate it accordingly, before proceeding with designing the activities, and developing the supportive materials.

Alternatively, teachers can use learning designs that have been developed in the framework of ATS2020 project, and adjust them according to the needs of their respective classes. Learning designs with accompanying supportive materials, along with samples of students' work can be found at: <https://resources.ats2020.eu/resource-listing?q=&category=LEDE&age=&country=&edu=&focus=&lng=EN&learning=&subject=&perpage=10&sortBy=title>

he/she would present the learning process as well as the learning outcomes. It is noted that for the purposes of ATS2020, the emphasis is placed on the ATS2020 transversal skills.

Additionally, for each Learning Cycle continuous assessment should take place, formative as well as summative. It is noted that the summative assessment of a particular Learning Cycle can constitute formative assessment throughout the school year, by providing the foundation for the design of the next Learning Cycle.

For assessment purposes pertaining to ATS2020 transversal skills, apart from the formative assessment scaffolding tools which are expected to be used by students (self-assessment, peer-assessment) as well as by the teacher, the following formative assessment tools have been prepared to be utilized in each Learning Cycle.

> Formative Self-Assessment Scaffolding Tool of Students' Competences and Skills

<https://resources.ats2020.eu/resource-details/SCTS/assessment-student>

> Formative Assessment Scaffolding Tool of Students' Competences and Skills for Teachers <https://resources.ats2020.eu/resource-details/SCTS/assessment-scaffolding-tool>

> Assessment Scaffolding Tool for students' ePortfolios

<https://resources.ats2020.eu/resource-details/SCTS/assessmentToolPortfolio>

Students will also prepare their Final ePortfolio for the whole school year, including in it the *My Learning Journal*, which they started completing during the introductory lesson and revisited at different times, throughout the school year, and connect the ePortfolios of all the Learning Cycles that they had implemented.

→ B5 - OVERVIEW OF THE IMPLEMENTATION THROUGHOUT THE SCHOOL YEAR

The figure below, provides an overview of the overall implementation of the Learning Cycles throughout the school year, which concludes with the completion of students' Final ePortfolio. It is important to note that the Final ePortfolio should be developed gradually during the school year, and only finalized at the end of the school year. The same applies for the *My Learning Journal*.

In all cases, it is expected that evidence of the assessment of students' transversal skills is provided, as derived by the utilization of the scaffolding tools developed for this particular purpose.

* Depending on the school timetable, the number of Learning Cycles may vary during the school year.

Course of implementation ATS2020

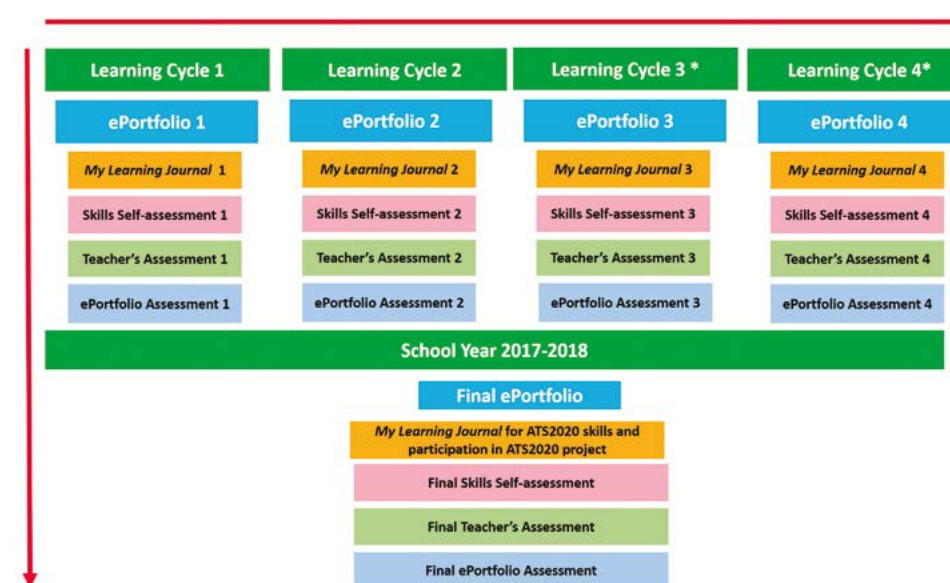


Figure 15: Overview of the overall implementation of the Learning Cycles throughout the school year

IMPLEMENTATION



→ C1 - INTRODUCTORY LESSON FOR THE ATS2020 LEARNING MODEL AND THE ONLINE ENVIRONMENT TO BE USED

The students should be informed by the teachers about the project they are going to participate in, as well as about the methodology that will be followed. For this purpose, a suggestion has been developed in the form of a presentation, of a duration of two school periods.

This suggestion aims to help students:

- Develop understanding of the ATS2020 learning model and its basic elements.
- Understand their own role in the ATS2020 learning model, as well as their basic responsibilities.
- Develop understanding of the *My Learning Journal*, its different entries and its main elements.
- Develop basic skills in using the online learning environment that they are going to adopt.

Following a brief presentation, the lesson continues with practical implementation, as follows:

- Activation of the students' accounts in the online learning environment and login to the environment.
- Completion of the first three elements (entries) of the *My Learning Journal*

for the whole school year pertaining to the ATS2020 skills (description of prior knowledge, setting of learning goals, and setting learning strategies).

- Preliminary design and creation of an ePortfolio (structure, content, showcase).

Teachers may use this presentation as a tool for their lessons, or use it for deriving views and suggestions. The lesson can take place during the Informatics/ICT/ Computer Science class, in collaboration with the teacher responsible, as part of the unit that focuses on online environments. In order for this lesson to be implemented, the students' accounts should have already been created in the learning environment that they are going to use.

You can view the introductory lesson in the following links:

- Office 365 OneNote Class Notebook:
https://resources.ats2020.eu/resource-details/GUTS/intro_office
- Mahara:
https://resources.ats2020.eu/resource-details/GUTS/intro_mahara

→ C2 DESCRIPTION OF PARTICIPANTS' ROLES

For the successful implementation of the ATS2020 learning model, the involvement of teachers and students who will implement the model in class is very important, as well as the support offered by the school management team, the technical support manager, the inspectors and the parents and guardians. Without this support, it would be difficult for the necessary flexibility to be in place as well as for facilitation to the teacher and students when needed, especially in schools where the ATS2020 is an innovation.

Below, you can see what is expected from each participant during the implementation of the ATS2020 learning model throughout the school year, according to each participants' role: teacher, student, headmaster and parent.

ATS2020 TEACHER

- ♥ Selects the class or classes that will participate in the implementation of the ATS2020 learning model, as well as the subject/subjects, in which the ATS2020 learning model will be implemented.
- ♥ Informs all interested parties (school management, inspectors, colleagues, parents, students).

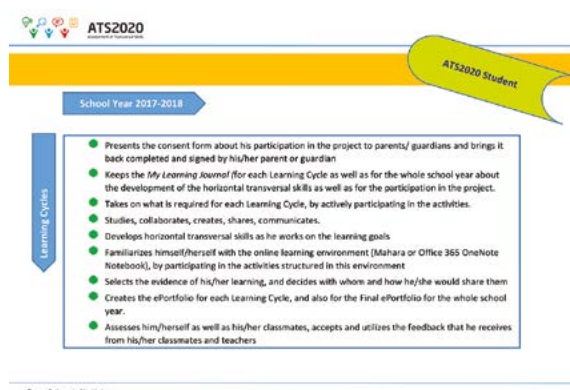
- ♥ Guides and supports the collection of parents and guardians' consent forms for the participation of their children in ATS2020.
- ♥ Selects the online learning environment that the class will utilize (Mahara or Office365 OneNote Notebook).
- ♥ Collects the names and details of participating students (the ones who have received parents and guardians' consent forms) in order for accounts to be created in the selected online learning environment.
- ♥ Organizes and implements the introductory lesson about the ATS2020 learning model, as well as about the selected online learning environment so that students familiarize with them.
- ♥ Receives training about the ATS2020 learning model, its theoretical background, its online learning environments as well as the learning and assessment tools.
- ♥ Maintains a close, continuous and constructive communication with the appointed trainer.
- ♥ Receives continuous support by the appointed trainer, and participates in online teachers' communities for assistance, and exchange of ideas and best practices.
- ♥ Prepares a summary planning of at least 2 Learning Cycles for the school year (<https://resources.ats2020.eu/resource-details/ADM/Planning>).
- ♥ Designs and develops learning designs on the macro-level for at least 2 Learning Cycles throughout the school year. More specifically:
 - Each Learning Cycle is expected to last 4-6 periods
 - Learning Cycles are expected to be completed by the end of the school year
 - Learning Cycles, apart from learning goals, should also target the development of ATS2020 transversal skills
 - In each Learning Cycle, emphasis may be placed on a different competences and skills area, such as
 - > Learning Cycle: Information Literacy/ Autonomous Learning (Utilization of the *My Learning Journal*)
 - > 2nd Learning Cycle: Collaboration and Communication/ Creativity and Innovation. The same skills area could also be selected (e.g. Information Literacy) with different targeted skills or the same skills on a higher proficiency level
 - > More Learning Cycles can be implemented (if there are resources available) with the emphasis placed on other competences and skills areas

- > Each Learning Cycle should include activities pertaining to the completion of the *My Learning Journal*, to the creation of ePortfolio, as well as to the completion of formative assessment scaffolding tools
- ♥ Shares and discusses the macro-level learning design with the appointed trainer as well as with other teachers in order to receive feedback.
- ♥ Incorporates ICT in the Learning Cycles, by organizing and designing materials and lesson activities in the selected online learning environment (Mahara or Office365 OneNote Class Notebook).
- ♥ Implements the Learning Cycles, assesses, redesigns and re-elaborates.
- ♥ Provides ongoing guidance to students, by supporting and encouraging them.
- ♥ Monitors his/her students' progress in the development of horizontal transversal skills.
- ♥ Prepares, adjusts and utilizes formative assessment scaffolding tools, in order to monitor students' progress, by providing them feedback.
- ♥ Completes for each student the Formative Assessment Scaffolding Tool of Students' Competences and Skills for Teachers <https://resources.ats2020.eu/resource-details/SCTS/assessment-scaffolding-tool>, regarding the development of skills (for each Learning Cycle as well as for the whole school year).
- ♥ Explains and analyzes to the students the ePortfolio structure and content.
- ♥ Completes for each student the Assessment Scaffolding Tool for Students' ePortfolios <https://resources.ats2020.eu/resource-details/SCTS/assessment-ToolePortfolio>, and provides feedback (for each Learning Cycle as well as for the Final ePortfolio for the whole school year).
- ♥ Supports students with the completion and keeping of the *My Learning Journal* https://resources.ats2020.eu/resource-details/ADM/learning_journal_en (for each Learning Cycle as well as for the whole school year).
- ♥ Takes ideas from, utilizes, and enriches the learning designs with resources and materials available on the ATS2020 resources portal <https://resources.ats2020.eu/>
- ♥ Participates in a questionnaire for the exploration of satisfaction levels from participation in the project (in the beginning and at the end of the project).

ATS2020 STUDENT

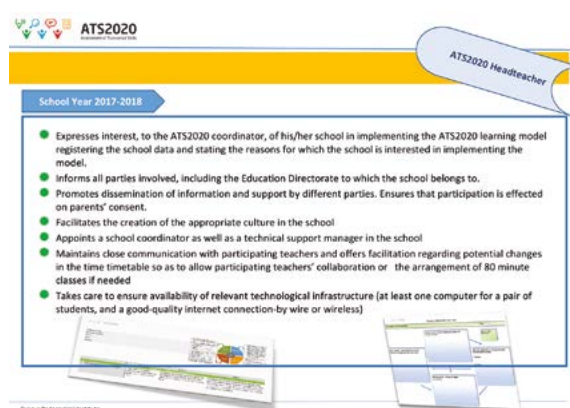
- ♥ Presents the consent form about his/her participation in the project to parents/ guardians and brings it back completed and signed by his/her parent or guardian.

- ♥ Keeps the *My Learning Journal* (for each Learning Cycle as well as for the whole school year about the development of the horizontal transversal skills as well as for the participation in the project).
- ♥ Takes on what is required for each Learning Cycle, by actively participating in the activities.
- ♥ Studies, collaborates, creates, shares, communicates.
- ♥ Develops horizontal transversal skills as he/she works on the learning goals.
- ♥ Familiarizes himself/herself with the online learning environment (Mahara or Office 365 OneNote Class Notebook), by participating in the activities structured in this environment.
- ♥ Selects the evidence of his/her learning, and decides with whom and how he/she would share them.
- ♥ Creates the ePortfolio for each Learning Cycle, and also the Final ePortfolio for the whole school year.
- ♥ Assesses him/herself as well as his/her classmates, accepts and utilizes the feedback that he receives from his/her classmates and teachers.
- ♥ Monitors his/her progress and completes the Formative Self-Assessment Scaffolding Tool of Students' Competences and Skills <https://resources.ats2020.eu/resource-details/SCTS/assessment-student>.



ATS2020 HEADTEACHER

- ♥ Expresses to the ATS2020 coordinator interest of his/her school in implementing the ATS2020 learning model, registering the school data and stating the reasons for which the school is interested in implementing the model.
- ♥ Informs all parties involved, including the Education Directorate

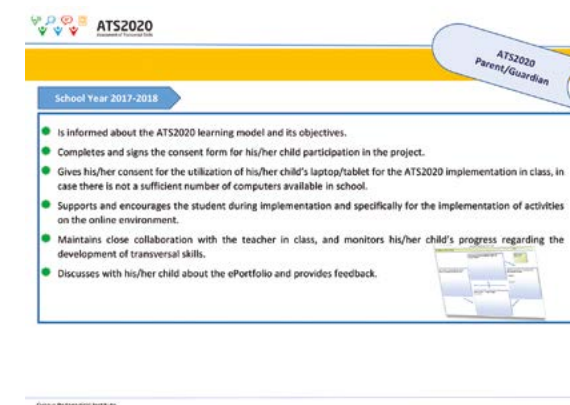


to which the school belongs to.

- ♥ Promotes dissemination of information and support by different parties. Ensures that participation is effected on parents' consent.
- ♥ Facilitates the creation of the appropriate culture in the school.
- ♥ Appoints a school coordinator, as well as a technical support manager in the school.
- ♥ Maintains close communication with participating teachers and offers facilitation regarding potential changes in the time timetable, so as to allow participating teachers' collaboration or the arrangement of 80-90 minute classes if needed.
- ♥ Takes care to ensure availability of relevant technological infrastructure (at least one computer for a pair of students, and a good quality internet connection, wired or wireless).
- ♥ Facilitates the implementation of teachers' Learning Cycles.

ATS2020 PARENT/GUARDIAN

- ♥ Is informed about the ATS2020 learning model and its objectives.
- ♥ Completes and signs the consent form for his/her child participation in the project.
- ♥ Gives his/her consent for the utilization of his/her child's laptop/tablet for the ATS2020 implementation in class, in case there is not a sufficient number of computers available in school.
- ♥ Supports and encourages the student during implementation, and specifically for the implementation of activities on the online environment.
- ♥ Maintains close collaboration with the teacher in class, and monitors his/her child's progress regarding the development of transversal skills.
- ♥ Discusses with his/her child about the ePortfolio and provides feedback.



Participants' flashcards can be found at:

Teacher's flashcard:

https://resources.ats2020.eu/resource-details/ADM/teacher_guide_card

Student's flashcard:

https://resources.ats2020.eu/resource-details/ADM/student_guide_card

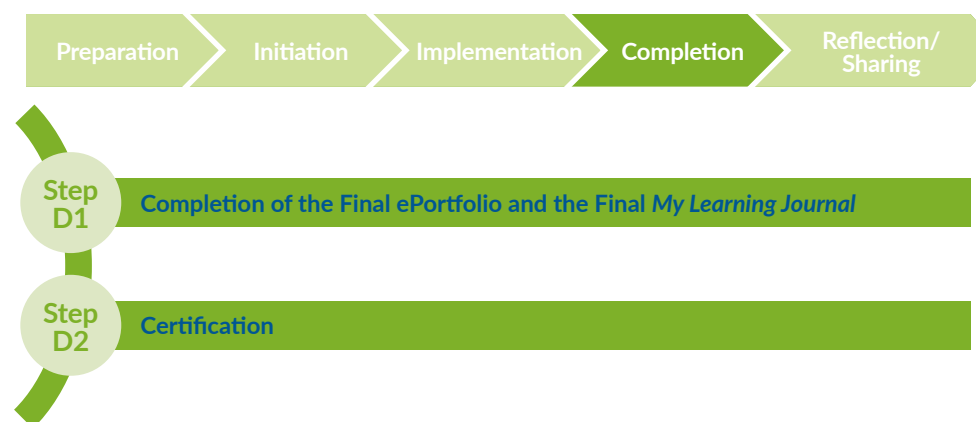
Headteacher's flashcard:

https://resources.ats2020.eu/resource-details/ADM/headteacher_guide_card

Parent's/Guardian's flashcard:

<https://resources.ats2020.eu/resource-details/ADM/parent-guardian>

COMPLETION OF THE ATS2020 PROJECT



→ D1 - COMPLETION OF THE FINAL ePORTFOLIO AS WELL AS OF THE MY LEARNING JOURNAL

MY LEARNING JOURNAL

With the completion of the Learning Cycles, students will complete the entries in the Final *My Learning Journal* for the development of the transversal skills during the whole school year. Students should have started completing this Journal during the introductory lesson in the beginning of the school year, and they should have visited and developed it throughout the school year. It's important for the students to be able to reflect the whole process of implementing the ATS2020 learning model and assess themselves, taking into consideration the assessment sheets that they had completed during the Learning Cycles throughout the school year (e.g. self- assessment scaffolding tools, peer assessments etc.). The conclusions from the summative assessment are expected to stimulate the new goals setting for new Learning Cycles.

FINAL ePORTFOLIO

The development of the Final ePortfolio for the whole school year had been initiated during the introductory lesson, at the start of the school year. Once they complete the Learning Cycles, students are expected to present their learning process throughout the school year, regarding the development of transversal skills (as they registered it in the Final *My Learning Journal*), and select

Sample of exemplar ePortfolios can be found at:

<https://resources.ats2020.eu/resource-details/LEDE/5A42B3171FC99284E38EA1F66C113462>

More students' ePortfolios can be viewed at:

<https://resources.ats2020.eu/resource-listing?q=exemplar%20ePortfolios&category=LEDE&age=&country=&edu=&focus=&lng=&learning=&subject=&perpage=&sortby=>

the evidence of their learning that they consider important to include in their Final ePortfolio. It is expected that interconnections will be enabled among the ePortfolios of the Learning Cycles they have developed. The process of learning throughout the school year is expected to emphasize the learning outputs, as well as the progress they have made, through the structuring, and presentation style of the selected artefacts.

→ D2 - CERTIFICATION

The school, the participating teachers and students will receive a certificate. Certificate templates can be accessed as follows:

- Template for participating schools:
https://resources.ats2020.eu/resource-details/ADM/certificate_school
- Template for participating teachers:
https://resources.ats2020.eu/resource-details/ADM/certificate_teacher
- Template for participating students:
https://resources.ats2020.eu/resource-details/ADM/certificate_student

REFLECTION /SHARING



→ E1 - SELF REFLECTION AND ASSESSMENT OF THE IMPLEMENTATION FOR THE SCHOOL YEAR

With the completion of ATS2020 implementation for the whole school year, the teachers who have implemented the learning model are expected to reflect on implementation, and assess the whole process. This reflection can take place during a meeting of all people involved, where the following issues can be discussed in a semi-structured fashion:

- > Has the learning model have an impact, in any way, on the students' learning in relation to transversal skills?
- > Which of the basic elements of the learning model have contributed (and in what way) to the successful implementation of the learning model (e.g. learning designs, digital technologies, assessment, *My Learning Journal*, ePortfolio etc.).

The conclusions can be the starting point for the planning of the following school year. They can also feed the discussion about potential requirements and opportunities for a potential broader implementation.

→ E2 - SHARING OF RESULTS, GOOD PRACTICES AND LEARNING OUTCOMES

The presentation of the results, of good practices and of learning outcomes is an essential element of the learning process. The implementation of the ATS2020 learning model is regarded as a learning process in the context of the teachers'

professional development. The sharing of learning artefacts (such as learning designs, supportive materials developed, students' ePortfolios), will provide opportunities for collection of feedback from other teachers or other parties involved.

Some suggestions towards this end include:

- ♥ The organisation of a school event towards the end of the school year, where teachers and students will present to the broader school unit (teachers, students, parents, education professionals) the implementation of ATS2020 learning model, and will discuss the results. This event can also include a poster session featuring the learning designs, ePortfolios, and students' assignments, student workshops etc. An award ceremony could also take place.
- ♥ Participation in conferences and other events (such as the annual event organised by the Department of Educational Technology at the Cyprus Pedagogical Institute for the incorporation of digital technologies in the learning process).
- ♥ Organization of a school contest for awarding exemplar Learning Cycles and students' ePortfolios.
- ♥ Participation in national and international contests for the awarding of participating students' ePortfolios.
- ♥ Creation of a school community for the ATS2020 where exchange of good practices will take place, discussions about issues affecting the school community regarding the ATS2020 objectives. A collection of learning designs as well as supportive materials for the school can also be developed.
- ♥ Participation in the broader ATS2020 community in your country and other countries, with a view to exchanging experience, educational content, discussing and implementing in a broader context.
- ♥ Uploading of learning designs and other material to User Generated Content educational repositories such as "Photodentro" (<http://photodentro.pi.ac.cy>), as well as to the ATS2020 resource portal (<http://resources.ats2020.eu>) so as to enrich existing resources. Exemplar Learning Designs can be distinguished and awarded.

TIP

The publication of students' work, particularly of students' ePortfolios should ensure sensitivity in managing students' personal data, as well as the obtaining of students' prior consent. The utilization of content and materials should include references to creators.

We hope that we will be receiving your feedback, hearing about your experience, and that we will get the chance to view your work and other achievements (yours and your students') in the online resource portal, as well as in other learning spaces.

We wish you a beautiful journey!



ATS2020

Assessment of Transversal Skills

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