

ATS2020 - Areas of Competences and Skills

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.
5. Integrate new knowledge and apply to new situations.

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.
4. Develop cultural understanding and global awareness by engaging with learners of other cultures.

1. Identify significant needs for learning based on their prior knowledge.
2. Define goals to achieve and develop a strategy to achieve them.
3. Plan and manage activities to implement strategy.
4. Evaluate process and results and provide evidence for achievement.
5. Reflect and explore alternative approaches (metacognition of their Learning Cycle).

1. Identify and match needs with possible solutions
2. Integrate and re-elaborate
3. Innovate and creatively use tools and resources
4. Create original works as a means of expression





Information Literacy

Short Description:

Students plan how to search, they search, collect, evaluate and use information for the construction of knowledge.



ATS2020

Assessment of Transversal Skills

Competences and Skills	Attainment Goals	Digital Competences and Skills	Attainment Examples			Level of "proficiency" 1	Level of "proficiency" 2	Level of "proficiency" 3
			Stands (way of thinking)	Actions (way of working)	Ethics (way of living)			
1. Plan strategies to guide inquiry	1.1 Identify significant needs/problems/questions to investigate in order to satisfy the learning goals	<ul style="list-style-type: none"> Use digital tools to identify significant needs/problems/questions Use information found in digital environments to identify significant needs/problems/questions to investigate Confer with others using digital tools to identify a research topic or other information need Identify new learning needs through Internet and Social Media 	<ul style="list-style-type: none"> Recognise the need for information Have a proactive attitude towards looking for information Be curious and prone to explore further and deeper Be motivated to seek information for different aspects in their lives Ask questions to probe more deeply Determine an appropriate scope of investigation 	<ul style="list-style-type: none"> Define and articulate the information need Adjust searches according to specific needs Write needs in the form of questions to be answered Formulate questions for research based on information gaps or on re-examination of existing, possibly conflicting, information Deal with complex research, by breaking complex questions into simple ones, limiting the scope of investigation Confer with others to identify a research topic or other information need 	<ul style="list-style-type: none"> Be curious and open in new and diverse ways of living Care about the needs and problems of others Identify needs and/or problems from their environment and/or society Be proactive about solving problems around them 	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. They create information strategies for their 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 have the capacity to update their strategies.
	1.2 Define information inquiry goals related to the declared needs/problems/questions	<ul style="list-style-type: none"> Use electronic search engines effectively to find relevant information that allows the formation of information inquiry goals Use electronic search engines to discover responses to similar needs/ problems/questions. 	<ul style="list-style-type: none"> Reflect on the use of different media and tools and resources 	<ul style="list-style-type: none"> Analyse the need/problem/questions into specific inquiry goals Identify keywords Have strategic information skills for goal oriented activities Define the nature of the information needed Define the extent of the information needed Define the reasons for searching for information Identify the media and information for a particular purpose and define the necessary content Identify key concepts and terms in order to formulate and focus questions Review the initial information need to clarify, revise, or refine the question 	<ul style="list-style-type: none"> Recognise problems and look for solutions, media and information 			
	1.3 Create and update personal information strategies	<ul style="list-style-type: none"> Adapt search strategies to a specific search engine, application or device Identify appropriate tools for finding information Present strategies through the use of digital technology Use computer programs (e.g., PowerPoint) to produce a detailed representation of planned strategies Use the internet to find and compare information so as to update information strategies 	<ul style="list-style-type: none"> Evaluate potential sources to look for media and information Recognise the need for media and information Acknowledge the availability of different resources and tools to support their inquiry 	<ul style="list-style-type: none"> Define or modify the information need to achieve a manageable focus Develop search strategies and search processes to find media and information Identify previous knowledge related to the inquiry goals Layout a work plan for the specified project Explore general information sources to increase familiarity with the topic Articulate and use criteria to make information decisions and choices Select and identify appropriate investigative methods e.g. laboratory experiment, simulation, fieldwork Investigate benefits and applicability of various investigative methods Develop a search plan appropriate to the investigative method Select appropriate controlled vocabulary or a classification specific to the discipline or information access tools Construct and implement a search strategy using appropriate commands Implement the search using investigative methodology appropriate to the discipline 	<ul style="list-style-type: none"> Recognise that a variety of media and information serve a variety of purposes Observe the way other people work to update personal information strategies 			
2. Evaluate and select information sources and tools based on the appropriateness to specific tasks	2.1. Select appropriate/relevant resources/tools that respond to the specific information inquiry	<ul style="list-style-type: none"> Know whom to follow in online information sharing places (e.g. micro-blogging) Search for appropriate digital tools to perform the task Select and identify the most appropriate tools for finding information Evaluate digital tools based on criteria (e.g. usefulness, appropriateness, usability, easy to learn) Keep up to date with information sources, information technologies, information access tools and investigative methods. 	<ul style="list-style-type: none"> Understand how information is generated, managed and made available Understand how information can be found in different devices and media Be critical towards content, based on the source, media, time and other criteria that they pose Understand the reliability of different sources Understand how information is organised and disseminated, recognising the context of the topic in the discipline Differentiate between, and values, the variety of potential sources of information Understand that different sources will present different perspectives 	<ul style="list-style-type: none"> Cross check information sources Use and refer to multiple tools and resources Choose appropriate media and information sources Evaluate sources based on their relevance, accuracy, authority, currency, objectivity, coverage, usability in order to select them Identify the intended purpose and audience of potential resources e.g. popular vs scholarly, current vs historical Differentiate between primary and secondary sources, recognising how their use and importance vary with each discipline Construct and implement effective search strategies Obtain information using appropriate methods Investigate the scope, content, and organisation of information access tools Consult with librarians and other information professionals to help identify information access tools 	<ul style="list-style-type: none"> Value the positive aspects of technologies for information retrieval Be flexible so as to adapt to the demands of different contexts 	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 techniques that allow them to search for information on different tools and resources.
	2.2. Use resources/tools effectively (access and navigate)	<ul style="list-style-type: none"> Know different search engines Understand that different search engines can provide different results Understand which search engines or databases best answer to their own information needs Use different search engines to locate different formats of information. (e.g. use YouTube to locate video) Adapt search strategies to a specific search engine, application or device Understand how search engines classify information Understands how feeds mechanism works Understands indexing principles Follow information presented in hyper-linked and non-linear form Use filters and agents Search for words that limit the number of hits Refine information searches and selects controlled vocabulary specific to the search tool Modify information searches according to how algorithms are built 	<ul style="list-style-type: none"> Realise that different needs require different solutions 	<ul style="list-style-type: none"> Compare, contrast, and integrate information from different sources Use various information access tools to retrieve information in a variety of formats Use appropriate services to retrieve information needed e.g. document delivery, professional associations, institutional research offices, community resources, experts and practitioners Use surveys, letters, interviews, and other forms of inquiry to retrieve primary information 	<ul style="list-style-type: none"> Take into account financial, legal and social issues when accessing resources and tools Maintain awareness of changes in information and communications technology 			
3. Locate, organise, analyse, evaluate, synthesise and ethically use information from a variety of sources and media	3.1. Find relevant information	<ul style="list-style-type: none"> Be able to search for information in digital environments Be able to locate different format types of information (text, video, pictures) Be able to use different search engines to locate different types of information Use alert/current awareness services Subscribe to relevant newsfeed and discussion groups Exclude irrelevant information using filters 	<ul style="list-style-type: none"> Develop and maintain an open mind when encountering varied and sometimes conflicting perspectives Recognise that not all information found on the Internet is valuable and reliable 	<ul style="list-style-type: none"> Adjust searches according to specific needs Locate relevant information in the sources and material found Select information that responds to the inquiry needs and goals Identify keywords, synonyms and related terms for the information needed 	<ul style="list-style-type: none"> Filter information coming from a variety of sources Be critical about the information they find 	Locate and retrieve information from a variety of resources and tools.	Locate and retrieve information from a variety of resources and tools. Critically evaluate information and organise it according to criteria that they set such as relevance, reliability, content, etc. Use information with respect to others (eg sensitive data) and copyright laws.	Locate and retrieve information from a variety of resources and tools. Critically evaluate information and organise it according to criteria that they set such as relevance, reliability, content, etc. Use information with respect to others (eg sensitive data) and copyright laws.
	3.2. Analyse information and data presented in a variety of forms	<ul style="list-style-type: none"> Select digital sources of information according to personal needs (e.g., webpage, video, audio) Classify information obtained through different digital sources and different formats based on specific criteria Source, share and analyse information that is found in different technologies and digital media formats Analyse digital information, judging its relevance and purpose 	<ul style="list-style-type: none"> Understand how different media can include hidden content Judge the validity of content found on the Internet or the media Motivate themselves to find authoritative sources 	<ul style="list-style-type: none"> Identify the writer, the purpose, the language and the context of a text Analyse, examine, and extract relevant media and information Identify the best and most useful media and information Decode information in a variety of forms: written, statistical, graphs, charts, diagrams and tables Assess the quantity, quality, and relevance of the search results to determine whether alternative information access tools or investigative methods should be utilised Identify gaps in the information retrieved and determines if the search strategy should be revised 	<ul style="list-style-type: none"> Realise that hidden agendas may exist in information depending on the author and context Understand the intentions of different people when sharing information 			
	3.3. Critically evaluate information	<ul style="list-style-type: none"> Search for author's credentials online. Use internet to compare information Compare the value and reliability of information depending on the source that it is found on (i.e., electronic encyclopaedia or blog) Assess digital tools and information based on their problem solving needs Apply assessment technics to evaluate digital technology information 	<ul style="list-style-type: none"> Be critical about the information they find Acknowledge that not all online information is reliable Understand the reliability of different sources Be aware that search engine mechanism and algorithms are not necessarily neutral in displaying the information Understand that information sources need to be cross-checked Recognise that media try to attract different audiences for different purposes Recognise and question prejudice, deception, or manipulation Recognise the cultural, physical, or other context within which the information was created and understand the impact of context on interpreting the information Recognise and understand own biases and cultural context 	<ul style="list-style-type: none"> Assess the relevance, usefulness, accuracy, authority, currency, timeliness, objectivity, coverage, usability of information Cross-check and assess the information validity and credibility Deal with information pushed at the user Compare, contrast, and integrate information from different sources Distinguish reliable information from unreliable sources Identify the writer, his/her position, expertise, and prejudice on the subject Compare information with their previous knowledge and experiences Distinguish editorial from commercial content / factual and fictional content of media and information Analyse the structure and logic of supporting arguments or methods Determine whether information satisfies the research or other information need and whether the information contradicts or verifies information used from other sources Analyse messages in a variety of forms by identifying the author, purpose and point of view, and evaluating the quality and credibility of the content 	<ul style="list-style-type: none"> Understand and question context, ownership, regulation, audiences, economic, legal, privacy and security issues of media and information Evaluate how people, places, issues, ideas and concepts are represented in media and information, with an appreciation of the importance of diversity in the media and information Recognise that media and information have social and political implications and that the media and information often have an agenda setting function Understand and evaluate the functions of media and information in society Develop awareness of the importance of assessing content with a sceptical stance and with a self-awareness of their own biases and worldview Understand that information and knowledge in any discipline is in part a social construction and is subject to change as a result of ongoing dialogue and research 			
	3.4. Store and retrieve information	<ul style="list-style-type: none"> Use information management services, software and applications Know how to save files and content (e.g. texts, pictures, music, videos, and web pages) Know how to go back to the content they have saved Save, store or tag files, content and information and have their own storing strategy Retrieve and manage the information and content they have saved or stored Apply different methods and tools to organise files, content, and information Deploy a set of strategies for retrieving the content they or others have organised and stored Be aware about the importance of back-ups 	<ul style="list-style-type: none"> Realise benefits and shortfalls of different storage devices/services (online and local storage options) Be aware of consequences when storing content as private or as public Understand how information is stored on different devices/services Be aware about the importance of back-ups Realise benefits and shortfalls of different storage devices/services (online and local storage options) Acknowledge the importance of having an understandable and pragmatic storage system/scheme Be aware of consequences when storing content as private or as public 	<ul style="list-style-type: none"> Know different storage options and select the most appropriate Use different storage options Organise information and content Retrieve and access previously stored information and content Structure and classify information and content according to a classification scheme/method Use various classification schemes to store and manage resources and information Tag content Arrange/Save/ Store/Preserve/ Delete media and information Download/Upload and classify information and content Organise the content in a manner that supports the purposes and format of the product e.g. outlines, drafts, storyboards 	<ul style="list-style-type: none"> Be flexible Evaluate the practicality of their choices based on their environment 			
	3.5. Apply copyright law and licences	<ul style="list-style-type: none"> Search for information to provide references when using information found on the web (e.g., photographs, videos etc.) Process digital information (i.e., paraphrase, adapt, use part of) based on copyright law and licences Use electronic material to create an e-portfolio taking into consideration copyright law and licences 	<ul style="list-style-type: none"> Understand copyright and licence rules Understand the purpose of the copyright law Understand the financial, legal and social issues in relation to the use of information Know that some of the content they use can be covered by copyright Know there are different ways of licensing intellectual property production Have basic knowledge of the differences about copyright, copyleft and creative commons and can apply some licences to the content they create Articulate the purpose and distinguishing characteristics of copyright, fair use, open access, and the public domain Know how different types of licences apply to the information and resources they use and create 	<ul style="list-style-type: none"> Use references for information and content used Give credit to the original ideas of others through proper attribution and citation Use appropriate licences for authoring and sharing content Consider licences regulation principles of use and publication of information Find information on copyright and licence rules Compile references in the required bibliographic format Mention restrictions in reproducing or posting work done by others 	<ul style="list-style-type: none"> Respect the intellectual rights of the work and its creator Respect private and sensitive data Respect the original ideas of others Value the skills, time, and effort needed to produce knowledge Value the open educational resources approach 			



Information Literacy



ATS2020

Assessment of Transversal Skills

Competences and Skills	Attainment Goals	Digital Competences and Skills	Attainment Examples			Level of "proficiency" 1	Level of "proficiency" 2	Level of "proficiency" 3
			Stands (way of thinking)	Actions (way of working)	Ethics (way of living)			
4. Process information and construct new knowledge	4.1. Create new content in different formats	<ul style="list-style-type: none"> Create and edit digital content Use software tools to create and edit text, presentations, videos and other formats Select appropriate tools to create new content 	<ul style="list-style-type: none"> Know which tool/application fits better the kind of content they want to create Know that digital content can be produced in a variety of forms Understand how meaning is produced through multimedia (text, images, audio, video) 	<ul style="list-style-type: none"> Create knowledge representations (e.g. mind maps, diagrams) using digital media Create original works as a means of personal or group expression Use basic packages to create content in different forms (text, audio, numeric, images) Apply media and information in contextually-relevant settings to target audience Create new information after making a critical review and revision of assimilated information Show awareness of their target and intended audience Communicate clearly and in a style to support the purposes of the intended audience 	<ul style="list-style-type: none"> Judge constructively and appreciate the work of others 	Process information to create or edit content in a variety of formats, using different tools.	Process information to create or edit content in a variety of formats, using different tools. Construct their own (and new) knowledge.	Process information to create or edit content in a variety of formats, using different tools. Construct their own (and new) knowledge, in a creative and innovative way. Publish new content with respect to others.
	4.2. Edit and improve content	<ul style="list-style-type: none"> Use digital tools that allow editing of existing content Combine information from different digital sources to create a completed view of a topic Use different technologies and digital media tools to improve content found on line Create and edit new content (from word processing to images and video) Select information from different digital tools to edit and improve the content of their e-portfolio 	<ul style="list-style-type: none"> Recognise trends and patterns to make conclusions from information sources Integrate and re-elaborate previous knowledge and content Produce creative expressions, media outputs and programming Use a range of ICT tools to effectively present information in various forms conforming to their purpose, recipient and content 	<ul style="list-style-type: none"> Group and organise the retrieved media and information Edit the content in order to enhance the final output Use the information they have located to edit data or to perform a task Select and synthesise media and information Combine information from multiple sources and with different characteristics, structure, forms and purposes to produce representation of information Summarise information from multiple sources Summarise the main ideas that come out of the information and combine them to create new meanings Recognise interrelationships between concepts and draws conclusions based upon information gathered Extend initial synthesis at a higher level of abstraction to construct new hypotheses Incorporate principles of design and communication appropriate to the environment Present in an organised manner the information they have selected 	<ul style="list-style-type: none"> Respect intellectual property rights and licences Respect others when making adjustments and alterations 			
	4.3. Express creatively through different media and technologies	<ul style="list-style-type: none"> Use a range of appropriate information technology applications in creating the product Create original videos and recordings using relevant software Find original ways of combining information coming from different media and technologies Communicate knowledge found on the web in ways that correspond to different age groups 	<ul style="list-style-type: none"> See the potential of technologies and media for self-expression and knowledge creation 	<ul style="list-style-type: none"> Engage with creative content Use a variety of media to express themselves creatively (e.g. text, images, audio, and movie) Take part in public conversation (e.g. through comment sections) Keep a blog or other version of online diary 	<ul style="list-style-type: none"> Incorporate feelings and stance in life through work with media and technology Incorporate parts of own personality and interests into work 			
	4.4. Responsibly publish content	<ul style="list-style-type: none"> Be aware of digital safety and security issues when publishing content online Choose a communication medium and format that best supports the purposes of the product and the intended audience Participate in electronic discussions following accepted practices e.g. Netiquette Use BCC and CC to communicate information to various audiences Use different digital tools to publish content based on specific needs Share resources through online tools taking others' needs Responsibly engage with Web 2.0 user-generated content such as blogs, forums, video and photo sharing, social gaming, and other forms of social media 	<ul style="list-style-type: none"> Be critical about knowledge production and consumption with media and technologies Decide where and how their information is published according to purpose Make informed choices regarding their online actions in full awareness of issues related to privacy and the commodification of personal information Demonstrate an understanding of what constitutes plagiarism and correctly acknowledges the work and ideas of others Identify and articulate issues related to privacy and security in the print and electronic environments Identify and understand issues related to censorship and freedom of speech 	<ul style="list-style-type: none"> Demonstrate ethical use of information Protect personal data Communicate the learning product with acknowledgement of intellectual property Understand fair dealing in respect of the acquisition and dissemination of educational and research materials Obtain, store, and disseminate text, data, images, or sounds in a legal manner Demonstrate an understanding of intellectual property, copyright and fair use of copyrighted material 	<ul style="list-style-type: none"> Understand the responsibility of publishing content (e.g., reliable, not offensive, not harmful, etc.) Foresee consequences that published content may have on themselves or others See themselves as contributors to the information marketplace rather than only consumers of it Take social action by working individually and collaboratively to share knowledge and solve problems 			
5. Integrate new knowledge and apply to new situations	5.1. Make connections between what they already know and new information		<ul style="list-style-type: none"> Identify whether there are differing values that underpin new information or whether information has implications for personal values and beliefs Apply reasoning to determine whether to incorporate or reject viewpoints encountered Maintain an internally coherent set of values informed by knowledge and experience 	<ul style="list-style-type: none"> Apply new knowledge and skills in new situations Compare new knowledge with previous knowledge to define its value and the contradictions and draw conclusions based on the information gathered Learn or internalise media and information as personal knowledge Evaluate knowledge for usefulness 	<ul style="list-style-type: none"> Learn from their past actions and be open to change. Transform information into knowledge 	Integrate knowledge they already have and with new one.	Integrate knowledge they already have and with new one. Are able to question their ideas and other people's and adjust their thinking. Review, restructure and reproduce new ideas.	Integrate knowledge they already have and with new one. Are able to question their ideas and other people's and adjust their thinking. Review, restructure and reproduce new ideas.
	5.2. Question ideas and assumptions, both their own and other people's	<ul style="list-style-type: none"> Contribute to the public knowledge domain (e.g. wikis, public forums, reviews) 	<ul style="list-style-type: none"> Question, revisit, restructure, review, adjust, improve, and change ideas 	<ul style="list-style-type: none"> Pose questions asking for clarifications Refer to alternative solutions to problems Request explanations for other people's thinking 	<ul style="list-style-type: none"> Be critical about ideas and assumptions Acknowledge that ideas can be improved 			
	5.3. Adjust their thinking in light of new information		<ul style="list-style-type: none"> Be critical about knowledge production and consumption. 	<ul style="list-style-type: none"> Develop new action plans for achieving their goals Revise their strategies after collecting new information 	<ul style="list-style-type: none"> Respect other people's opinions and ideas 			



ATS2020

Assessment of Transversal Skills



Collaboration and Communication

Short Description:

Students use the right tools (language, media) in order to explicitly share their learning and support their opinion.
Students use the right tools (language, media) in order to work collaboratively to support individual learning, and contribute to the learning of others.



ATS2020

Assessment of Transversal Skills

Competences and Skills	Attainment Goals	Digital Competences and Skills	Attainment Examples			Levels of "proficiency" 1	Levels of "proficiency" 2	Levels of "proficiency" 3
			Stands (way of thinking)	Actions (way of working)	Ethics (way of living)			
1. Interact, collaborate, and publish with peers, experts, or others	1.1 Develop good relationships and appreciate the value of cooperating to reach both collective and personal goals	<ul style="list-style-type: none"> Understand the characteristics of different digital tools and know how to use them to achieve project purposes Use several digital collaboration tools and means to collaborate with others in the production and sharing of resources, knowledge and content Use the collaborative features of software packages and web-based collaborative services (e.g. track changes, comments on a document or resource, tags, contribution to wikis) Use several digital collaboration tools and means to collaborate with others in the production and sharing of resources, knowledge and content Adapt applications to collective and personal needs and preferences 	<ul style="list-style-type: none"> Know that collaborative processes facilitate content creation Understand the dynamics of collaborative work and of giving and receiving feedback Value other people's viewpoints and be willing to share ideas and contribute to collective work Understand the importance of sharing opinions in constructing new knowledge Understand the importance of filtering information and critically evaluating content Have an informed opinion about sharing practices, benefits, risks and limits 	<ul style="list-style-type: none"> Exchange views and collaborate with peers smoothly Use a wide range of tools for online communication and collaboration Use digital technology to participate in collaborative learning and communication spaces Use collaborative tools in such a way so that everyone within a group is allowed to contribute to a project Use collaborative features of software packages and web-based collaborative services (e.g. track changes, comments on a document or resource, tags, contribution to wikis) Adapt applications to collective and personal needs and preferences 	<ul style="list-style-type: none"> Be willing to collaborate with others towards common goals Respect the rights and feelings of others when using digital media Be inclusive by allowing everyone in a group to contribute to a project Be aware of copyright issues Consider ethical principles of use and publication of information and act accordingly 	Understand the dynamics of collaboration towards goal achievement and develop good relationships with peers, experts, or others.	Collaborate well enough to achieve shared goals.	Interact, collaborate and achieve collective and personal goals.
	1.2 Co-operate	<ul style="list-style-type: none"> Work with others through emails, voip, social media, blogs, instant messaging Share files and content with others through simple technological means (e.g. sending attachments to emails, uploading pictures on the internet) Actively share information, content and resources with others through online communities, networks and collaboration platforms 	<ul style="list-style-type: none"> Understand that collaborative work requires flexibility and willingness in order to achieve a common goal Have an understanding of the different roles needed in completing a collaborative project Value democratic processes when collaborating 	<ul style="list-style-type: none"> Agree on collective goals and work with others in physical and online space towards achieving them Take on different roles within groups Contribute to decisions as part of a group Take a proactive attitude in the sharing of resources, content and knowledge Share content found on the internet (e.g. how to share a video within a social networking site) 	<ul style="list-style-type: none"> Be willing to share and collaborate with others Be flexible and willing to make compromises to achieve a common goal Show appreciation for the contribution of other team members Respect other people's privacy when interacting in the digital space 			
	1.3 Learn with others	<ul style="list-style-type: none"> Manage the different types of communication received (e.g. sort out emails, decide whom to follow on social sites) Share files and content with others through simple technological means (e.g. sending attachments to emails, uploading pictures on the internet) Actively share information, content and resources with others through online communities, networks and collaboration platforms 	<ul style="list-style-type: none"> Understand that peers can support each other's learning by utilizing their strengths and weaknesses Understand the importance of sharing content in digital space in order to facilitate the learning process 	<ul style="list-style-type: none"> Work in pairs and larger groups to help each other in the learning process Help other students to understand and solve problems Use digital collaboration tools to collaborate with others Evaluate the contribution of others to common projects Provide and receive feedback 	<ul style="list-style-type: none"> Recognize that many different people can support own learning and know how to get that support Be willing to provide and receive help in achieving learning goals Be willing to identify strengths and weaknesses among team members and assign tasks accordingly to achieve learning goals 			
2. Communicate information and ideas effectively to multiple audiences using a variety of media and formats	2.1 Communicate, express opinions, write, make oral presentations and perform	<ul style="list-style-type: none"> Use web-based tools to communicate content and information Share content found on the internet (e.g. how to share a video within a social networking site) Use appropriate licences for authoring and sharing content Participate in social networking sites and online communities to pass on or share knowledge, content and information. Use social media to promote results of work 	<ul style="list-style-type: none"> Be aware of different digital formats (including multimedia) and know how to use them to create content for multiple audiences Be aware of the potential to communicate information Be aware of how meaning can be encoded and decoded Understand active protection of personal data Understand online risks and threats, know about safety and security measures 	<ul style="list-style-type: none"> Use the cc and bcc function when communicating online Communicate to multiple audiences through different digital communication means Be actively engaged in online communication in order to prepare content. Tailor the format and ways of communication to specific audiences Identify which webpages are attractive and easy to navigate Protect own devices 	<ul style="list-style-type: none"> Be critical about the content shared Protect privacy when sharing Understand that own digital footprint can be seen by others Take safety and security measures 	Listen, discuss, and debate information and ideas.	Express ideas through performance and presentation.	Communicate, express opinions, write, make oral presentations and perform using appropriate language.
	2.2 Listen and express oneself	<ul style="list-style-type: none"> Use web-based tools to communicate content and information 	<ul style="list-style-type: none"> Be willing to listen to other people's views as well as to express oneself confidently 	<ul style="list-style-type: none"> Ask well thought-out questions and listen to the answer Listen actively Express feeling and thoughts clearly in an appropriate tone 	<ul style="list-style-type: none"> Be willing to express feelings and thoughts in a clear and appropriate way Agree or disagree respectfully Use different styles of communication according to context and audience 			
	2.3 Perform and present	<ul style="list-style-type: none"> Use web-based tools to communicate content and information Participate in social networking sites and online communities to pass on or share knowledge, content and information 	<ul style="list-style-type: none"> Understand the need to make choices about how best to present ideas to others, taking account of the audience in question 	<ul style="list-style-type: none"> Express ideas and emotions through performance and presentation such as visual art, music, drama, design and graphics Express ideas and emotions by using a variety of digital media and formats Select the most appropriate communication means according to the purpose 	<ul style="list-style-type: none"> Understand the importance of adapting one's presentation to the needs of the specific audience they are addressing each time 			
	2.4 Discuss and debate	<ul style="list-style-type: none"> Use a chat or a discussion forum to communicate Use web-based tools to communicate content and information Actively share information, content and resources with others through online communities, networks and collaboration platforms 	<ul style="list-style-type: none"> Understand the importance of exchanging views with peers and others towards forming an informed opinion Understand the importance of engaging in dialogue and presenting one's views clearly according to the audience's needs 	<ul style="list-style-type: none"> Participate confidently in class discussion Engage in discussions and debates in online and physical space in a constructive manner Present own point of view clearly and provide arguments to support own opinion Show respect and empathy to others when they are expressing their thoughts and feelings 	<ul style="list-style-type: none"> Engage in discussions and debates in online and physical space in a constructive manner Be willing to provide arguments and counterarguments to support own views and enrich discussions Understand the importance of showing respect and empathy to others when they are expressing their thoughts and feelings Respect the rights and feelings of others when using digital media Know about ethical issues in the online space (e.g. cyberbullying) and act accordingly Be aware of copyright issues 			
	2.5 Use language	<ul style="list-style-type: none"> Use edit functions to modify content Produce digital content in different platforms and environments Actively share information, content and resources with others through online communities, networks and collaboration platforms 	<ul style="list-style-type: none"> Understand the importance of using well-constructed sentences and appropriate language in making their point clear as well as in communicating their feelings and ideas effectively 	<ul style="list-style-type: none"> Understand and use a wide vocabulary Speak and write in well-constructed sentences Edit, correct and improve own written work Use a range of writing forms to express own ideas Make suggestions and comments in a polite and collaborative manner when engaging in online collaboration 	<ul style="list-style-type: none"> Understand the importance of using well-constructed language in getting one's ideas and views across Be willing to use appropriate language and other media in an informed way in order to get own ideas across 			
3. Develop cultural understanding and global awareness by engaging with learners of other cultures	3.1 Respect difference	<ul style="list-style-type: none"> Actively participate in online spaces Select the most appropriate communication means according to the purpose 	<ul style="list-style-type: none"> Appreciate other people's similarities and differences as a valuable part of life Understand that different cultures have different communication and interaction practices Respect cultural difference as well as viewpoints expressed by people from different backgrounds 	<ul style="list-style-type: none"> Listen actively and respectfully when people from different and cultures express their views and feelings Appreciate the work and effort of people from different cultures and be willing to incorporate it in shared work Collaborate effectively with people from different cultures in physical and online space Look to enrich his/her own experience by interacting with people from different cultures and backgrounds 	<ul style="list-style-type: none"> Show respect to people of different cultures Show openness to learning from different people Be willing to collaborate with people from different cultures towards a shared goal Understand that the experience and perceptions of people from different cultures can enrich one's knowledge and lead towards informed choices and decisions 	Be aware of the world's problems and believe in ability to make a difference.	Respect people from different cultures and make connections with people working to make a positive difference.	Collaborate with learners from other cultures to make the world a better place.
	3.2 Contribute to making the world a better place	<ul style="list-style-type: none"> Actively participate in online spaces Get actively engaged in online participation 	<ul style="list-style-type: none"> Believe in one's ability to make a difference Think critically about the world and its problems and propose solutions Be aware of the potential of technologies and media for citizen participation and democratic action 	<ul style="list-style-type: none"> Get involved in the community—including family, school, local, global, virtual—towards creating a better world Make connections with others who are working to make a positive difference Use digital means in order to effect change in the community and support democratic values 	<ul style="list-style-type: none"> Understand that the experience and perceptions of people from different backgrounds and cultures can shed light on global issues affecting today's world Be willing to listen to the views and perceptions of people from different cultures in order to make informed decisions about global and local issues Take action in physical and online space for responding to global challenges as an active citizen 			
4. Contribute to project teams to produce original works or solve problems	4.1 Gather, record, organize, and evaluate information and data	<ul style="list-style-type: none"> Know how messages and emails are stored and displayed Filter the communication received (for instance, sorting out emails, deciding whom to follow on micro-blogging social sites, etc.) Apply different methods and tools to organise information, content, and files Know different storage options Download and upload content Know different storage media 	<ul style="list-style-type: none"> Know that collaborative practices facilitate content creation Understand the dynamics of collaborative work as well as the dynamics of giving and receiving feedback Be willing to share and collaborate with others in online and physical space 	<ul style="list-style-type: none"> Use a range of strategies to find information and data Filter and monitor the information I received Value the quality of information and data as well as their sources Make judgements about how valid and reliable information found is Prepare and organize information and data Deploy a set of strategies for retrieving the content organised and stored 	<ul style="list-style-type: none"> Organize information according to the needs of the team Recognize existing knowledge as well as the wide range of information available Know about ethical issues in the online space (e.g. cyberbullying) and act accordingly 	Gather, record, organize and evaluate information and data within a project team in order to produce original works or solve problems.	Critically evaluate options, alternatives and different approaches in order to produce original works or solve problems.	Implement ideas and take action based on critical evaluation of options and alternatives.
	4.2 Explore options and alternatives		<ul style="list-style-type: none"> Be willing to put together along with peers an action plan for implementing a project Be willing to identify gaps in implementation along with team members and take corrective action Be willing to present ideas to the project team in a clear and intelligible manner 	<ul style="list-style-type: none"> Think through a problem step-by-step Reflect on progress and modify plan if needed Try different approaches when working on a task and evaluate what works best Seek out different viewpoints and perspectives and consider them carefully Imagine different scenarios and predict different outcomes Identify needs and discuss with team members for working out a solution 	<ul style="list-style-type: none"> Understand the importance of designing a strategy for reaching a goal Research information and different options on the web before taking a decision Participate in forum discussions for researching options and alternatives Critically evaluate possible solutions and digital tools 			
	4.3 Implement ideas and take action	<ul style="list-style-type: none"> Use digital tools to implement ideas and take action 	<ul style="list-style-type: none"> Understand the importance of adopting a proactive attitude for putting together an action plan along with peers 	<ul style="list-style-type: none"> Test out ideas Evaluate different ideas and actions See things through to completion 	<ul style="list-style-type: none"> Take a proactive attitude in putting an action plan together for reaching a goal See things through to completion Match needs with possible solutions Understand when own competence needs to be improved or updated and find ways to fill those gaps 			



Autonomous Learning

My Learning Cycle:
Setting goals, prior knowledge, strategies, evidence, self-evaluation.
Short Description:
Students design their learning in terms of identifying a need/problem, define their goals, develop a strategy to achieve their goals, evaluate their process and results and provide evidence, reflect and explore alternative approaches.



ATS2020

Assessment of Transversal Skills

Competences and Skills	Attainment Goals	Digital Competences and Skills	Attainment examples			Level of "proficiency" 1	Level of "proficiency" 2	Level of "proficiency" 3
			Stands (way of thinking)	Actions (way of working)	Ethics (way of living)			
1. Identify significant needs for learning based on their prior knowledge	1.1 Identify their existing knowledge and skills in reference to the learning context	<ul style="list-style-type: none"> Use digital tools to recover existing knowledge and skills Express, share and present existing knowledge and skills through the use of digital technology 	<ul style="list-style-type: none"> Question what they already know and review it Recall prior related knowledge and experience. Reflect on their needs for learning based on their prior knowledge Are curious and open to new learning paths Take responsibility for their learning and way of thinking Recognize the value of learning Thinking creatively innovatively and critically Be curious and open to new ways of thinking Make connections between what they already know and new knowledge/ information Connect new ideas to existing knowledge Reflect on their way of working Identify new potentials for learning 	<ul style="list-style-type: none"> Document their existing knowledge and skills in a way to help them identify their needs Apply self-peer and teacher assessment techniques and/or tools in order to identify their existing learning status Explore what is there to learn in the context given and beyond Document their new learning needs 	<ul style="list-style-type: none"> Be curious and open to new and diverse ways of living Know their self (self-knowledge) Be a learner for life. Be able to reflect on their own learning Be able to transform their knowledge Coordinate with others Evaluate their existing knowledge and skills Have Inquisitiveness for a wide range of issues Respect others' existing learning status Respect others' needs for learning Be curious and open to new ways of working 	They identify their existing knowledge and skills within the learning context.	They identify their existing knowledge and skills within the learning context and describe new learning needs.	They identify their existing knowledge and skills within the learning context and describe new learning needs. They are creative and innovative towards new learning paths.
	1.2 Use their environment in order to identify new learning needs	<ul style="list-style-type: none"> Create web initial questions Adjust and customise digital environments to personal needs (e.g. accessibility). Identify new learning needs through Internet and Social Media Source, share and evaluate new learning needs in different technologies and digital media formats 	<ul style="list-style-type: none"> Are aware of their potentials Can identify the gap of what they already know and where they want to reach Recognize and evaluate the steps taken to meet learning goals 	<ul style="list-style-type: none"> Involved in selecting their own goals from a range of alternatives. Articulate their goals Set realistic goals Set goals that are achievable Set goals based on overall and specific expectations Analyse their goals into tasks, activities, resources, etc. Set goals that will lead them to their maximum of their "zone of proximal development" 	<ul style="list-style-type: none"> Set and achieve personal goals Ask for help and cooperation Recognize personal needs, strengths and weaknesses Identify influences that make them who they are Express personal opinions and feelings appropriately Evaluate their context for achieving their goals 	They define goals for their learning to achieve.	They define goals for their learning to achieve. They develop a strategy to achieve these goals.	They define goals for their learning to achieve. They develop a strategy to achieve these goals. They can evaluate and update their strategy when necessary.
	1.3 Envision new state of learning	<ul style="list-style-type: none"> Assess needs and identify, evaluate, select and use digital tools and possible technological responses to solve them. Use digital technology to manage their envision for new knowledge and skills Use a variety of digital learning tools that help to be creative 	<ul style="list-style-type: none"> Understand the importance of strategic planning Are realistic about their action plans Recognize and evaluate the steps taken to develop a strategy 	<ul style="list-style-type: none"> Document their goals in order to achieve them Prepare detailed plans for the development of strategy Describe their strategy within a timeframe Align strategy with goals and expected outcomes Analyse their strategy into tasks, goals, expected outcomes, roles, resources, timeframe etc. 	<ul style="list-style-type: none"> Match their strategic plans with respect to their social context Understand the importance of developing personal strategies 			
2. Define goals to achieve and develop a strategy to achieve them	2.1 Define goals for their learning to achieve	<ul style="list-style-type: none"> Use new digital tools for the defining of goals (for example ePortfolio) Present goals in PowerPoint 	<ul style="list-style-type: none"> Understand that a strategy is their guidance to achieve their goals. Learn from past strategies and make changes if necessary Value the continuous monitoring of their strategy Have flexibility to readjust their strategy in the light of new needs 	<ul style="list-style-type: none"> Identify opportunities of improvement Adjust their strategy or elements of their strategy if needed Identify scaffolding tools to make their strategy explicit Revisit their goals and redefine them in the light of new information Evaluate their strategy in connection with goals, expected outcomes Redesign a strategy if needed 	<ul style="list-style-type: none"> Understand the importance of redesigning a strategy Flexibility in considering alternatives Remained open to other perspectives Understand the need for adaptation under the light of new knowledge/evidence 			
	2.2 Develop a strategy to achieve their goals	<ul style="list-style-type: none"> Are aware of different digital tools and environments that can support their strategy Use ICT and digital media to access, manage and share strategy Use a range of tools to plan and manage strategy Present strategies through the use of digital technology Use computer programs (e.g., PowerPoint) to produce a detailed representation of planned strategies Use the internet to find and compare information so as to update information strategies 	<ul style="list-style-type: none"> Understand the importance of detailed planning and monitoring Make connections between sources Adjust information in light of identify solution Evaluate the quality of the information and data and their sources 	<ul style="list-style-type: none"> Document the implementation of each task Use documentation to modify learning strategy if needed Compare and contrast information from different sources Analyse information and data presented in a variety of forms Prepare and organise information and data Make judgements about how valid and reliable an information is 	<ul style="list-style-type: none"> Take informed decisions Be organized Develop flexibility to work effectively in changing conditions Develop problem solving skills in different contexts 			
	2.3 Evaluate and update their strategy if needed	<ul style="list-style-type: none"> Use digital tools to expand their strategy 	<ul style="list-style-type: none"> Compare and contrast tasks/activities Make connections between tasks/activities Make judgements about how effective a task/activity is Implement tasks/activities and take action Understand possible practical limitations during the planning of an activity Identify/examine possibilities of combining different resources 	<ul style="list-style-type: none"> Analyse each task/activity in resources, roles, timeframe and expected outcomes Prepare what is needed for the activities to be implemented Initiate the activities planned 	<ul style="list-style-type: none"> Respect given deadlines and organize time to meet them Take initiatives and express views 			
3. Plan and manage activities to implement strategy	3.1 Analyse their learning strategy into specific tasks/ activities that align with their goals.	<ul style="list-style-type: none"> Use a range of strategies to find digital information and data Use different technologies to plan, manage and engage in their learning activities Stimulate creativity using digital technology 	<ul style="list-style-type: none"> Understand that there methodologies that can help the development and monitoring of their strategy implementation Evaluate activities progress towards achieving goals Assess their learning activities and suggest ways that are can be improved Constructed a cogent strategy using a logical process 	<ul style="list-style-type: none"> Use a range of strategies to find information, sources and data The tasks/activities can be observed and discussed Prioritise activities to achieve the goals set Adapt strategies to specific goals 	<ul style="list-style-type: none"> Be self-directed Receive and make use of feedback on their learning activities Be creative Respect others' abilities in implementing a strategy Understand the need for respecting timeframes 	They analyse their learning strategy into specific tasks that align with their goals.	They analyse their learning strategy into specific tasks that align with their goals. They analyse each task in resources, roles, timeframe and expected outcomes. They initiate their learning tasks.	They analyse their learning strategy into specific tasks that align with their goals. They analyse each task in resources, roles, timeframe and expected outcomes. They collect and analyse information on the implementation of each task and they make informed decisions for their learning strategy.
	3.2 Elaborate on each task/activity in detail so as to be implemented	<ul style="list-style-type: none"> Source, share and evaluate tasks/activities that are implemented in different technologies and digital media formats Web design Create an e-portfolio 	<ul style="list-style-type: none"> Understand the importance of detailed planning and monitoring Make connections between sources Adjust information in light of identify solution Evaluate the quality of the information and data and their sources 	<ul style="list-style-type: none"> Can review their progress themselves or in discussion with their peers Compare and contrast various assessments (self-assessment, peer-assessment, teacher assessment) to evaluate process and results Develop specific criteria to evaluate process and results Develop and use assessment rubrics Use assessment results for adapting activities 	<ul style="list-style-type: none"> Find ways of dealing with setbacks and difficulties Are open minded about peer-feedback peer-assessment and peer-criticism. Develop good relationships and deal with conflict Respect difference Open-mindedness towards divergent world views Understand the opinions of other people 			
	3.3 Collect and analyse information to identify solutions and/or make informed decisions	<ul style="list-style-type: none"> Collect information from various digital sources Source, share and evaluate information that are find in different technologies and digital media formats 	<ul style="list-style-type: none"> Overcome obstacles 	<ul style="list-style-type: none"> Describe the choice of learning achievements to share according to their audience Identify and describe the purpose to share specific learning achievements Share their learning achievement through performance and presentation such as visual art, music, drama, design and graphics Perform and present their learning achievement Discuss and debate their learning achievements Use relevant and reliable evidence to support their own claims or propositions Communicate using a variety of styles, including roleplay, drama, posters, and storytelling Identify different methods of sharing results 	<ul style="list-style-type: none"> Make choices about how they best present their achievements to others, taking account of their audience Use different styles of communication suited to the situation Self-confidence in own abilities Communicate assessment results respecting individual differences Acknowledge ethics when sharing results 			
4. Evaluate process and results and provide evidence for achievement	4.1 Use various assessment technics (self-assessment, peer- assessment, teacher assessment) to evaluate process and results	<ul style="list-style-type: none"> Use digital tools to follow the process and results Use different technologies and digital media tools to give and receive feedback Apply assessment technics through digital technology 	<ul style="list-style-type: none"> Are reflective Question, revisit, restructure, review, adjust, improve, change ideas Require new approaches to learning, teaching and assessment 	<ul style="list-style-type: none"> Keep reflection diaries on their Learning Cycle Reorganise their learning style 	<ul style="list-style-type: none"> Understand the value of the reflection Believe that with continuing effort they can succeed Synthesise and integrate evidence and ethical reasoning into a reflect and explore alternative approaches 	They reflect on the learning process and the learning outcomes.	They reflect on the learning process and the learning outcomes. Can gather evidence as a proof of their learning.	Can reflect on the learning process and the learning outcomes. Can gather evidence as a proof of their learning. They can share their learning achievement according to a purpose.
	4.2 Gather evidence of learning achievement	<ul style="list-style-type: none"> Use digital storage and retrieval tools for managing evidence 	<ul style="list-style-type: none"> Plan next steps in teaching and learning using feedback and assessment Generate feedback that encourages progress and give greater understanding and ownership of their learning 	<ul style="list-style-type: none"> Validate feedback in terms of efficiency and effectiveness Alter processes based on assessment feedback 	<ul style="list-style-type: none"> Require opportunities to be involved not only in the design of the learning but also in what they learn Validate feedback in terms of feelings and attitudes Willing to reconsider and revise views where necessary Are open to suggestions for improvement 			
	4.3 Share their learning achievement	<ul style="list-style-type: none"> Use digital tools to show and share their learning achievements Use digital technology to communicate 	<ul style="list-style-type: none"> Reflect on and evaluate their Learning Cycle experience for the development of a new Learning Cycle Learning Cycle demonstrates real achievement in grasping what critical thinking is Use Learning Cycle to develop of a range of specific critical thinking skills or abilities 	<ul style="list-style-type: none"> Gather, record, organize, and evaluate the Learning Cycle experience Identify solutions/strategies in alternative contexts or scenarios Identify similarities in different tasks and explore strategies for working Implement acquired knowledge in unknown conditions 	<ul style="list-style-type: none"> Use ICT effectively and ethically in learning and in life Develop positive attitudes towards working in new projects Reflect on knowledge gained process used attitudes and feelings Understand the value of the Learning Cycle experience 			
5. Reflect and explore alternative approaches (metacognition of their Learning Cycle)	5.1 Define assessment criteria and procedures of their Learning Cycle	<ul style="list-style-type: none"> Reflect on and review their own progress Identify blocks or barriers to their learning and suggest ways of overcoming them Manage digital reflection diaries to facilitate assessment procedures 						
	5.2 Use feedback to improve the Learning Cycle process	<ul style="list-style-type: none"> Create an ePortfolio 						
	5.3 Use the Learning Cycle experience for the development of a new Learning Cycle	<ul style="list-style-type: none"> Use digital storage and retrieval tools to present a new Learning Cycle 						



Creativity and Innovation



ATS2020

Assessment of Transversal Skills

Short Description:

Students identify and match needs with possible solutions, integrate and re-elaborate existing resources, innovate and creatively use tools and resources, and create original works as a means of expression.

Competences and Skills	Attainment Goals	Digital Competences and Skills	Attainment Examples			Level of "proficiency" 1	Level of "proficiency" 2	Level of "proficiency" 3
			Stands (way of thinking)	Actions (way of working)	Ethics (way of living)			
1. Identify and match needs with possible solutions	1.1 Assess own needs in terms of knowledge, resources, tools and competence development	<ul style="list-style-type: none"> Use information found in digital environments to identify needs Identify own needs through Internet and Social Media Adjust Internet searches according to specific needs Find relevant communities, networks, and social media that correspond to their interests and needs Adapt digital tools to personal needs Explore the web, the market, or their online network when searching for solutions 	<ul style="list-style-type: none"> Seek for resources, tools and competence development Think through a non-routine problem step-by-step and set strategy in problem solving Reflect and identify own needs 	<ul style="list-style-type: none"> Define the problem Set the specifications and requirements Investigate the parameters of the problem to guide their approach Look for sources of information and digital tools to find help for problem-solving Find the relevant knowledge for the solution Use knowledge, reasoning and skills in devising strategies 	<ul style="list-style-type: none"> Appreciate the added value of resources Acquire self-assessment of own needs Evaluate their strengths and suggest ways to improve them Accept their weaknesses and find ways to empower them Develop intrinsic motivation 	Use existing knowledge, make decisions and take actions when solving a routine task, but asking for help when facing a new or ill-defined problem.	Solve a non-familiar or ill-defined task by exploring different possibilities (tools, technologies) and making a decision about which is the most effective.	Make informed decisions when choosing a method, tool, device, application, software or service for a non-familiar task. Understand how new methods or tools work and operate. Plan, monitor and critically evaluate which method or tool will serve their needs the best.
	1.2 Critically evaluate possible solutions	<ul style="list-style-type: none"> Use digital tools to evaluate possible solutions Use digital tools and resources which help in the decision making process 	<ul style="list-style-type: none"> Novel and adaptive thinking (finding new solutions and responses to unexpected circumstances) Make informed decisions about whether and how to pursue relevant goals Be critical about possible solutions Imagine different scenarios and predict different outcomes 	<ul style="list-style-type: none"> Make a decision to select the appropriate solution Choose the most appropriate solution Rely to tangible criteria in order to evaluate possible solutions Explore alternative solutions that are offered Revise the possible solutions 	<ul style="list-style-type: none"> Maintain an open mind to alternative interpretations-solutions Critical/analytical thinking in evaluating possible solutions Put aside personal prejudices and biases in the process of evaluating Comfort in disagreeing with others and trying solutions Step away from an effort and return later with a fresh perspective Redefine problems effectively and think insightfully 			
	1.3 Implement ideas and take action	<ul style="list-style-type: none"> Use digital models and simulations to implement the ideas Use digital tools and resources to help making the action plan 	<ul style="list-style-type: none"> Evaluate different ideas and actions Think about the way and the stages the ideas are implemented 	<ul style="list-style-type: none"> Develop, implement and communicate new ideas to others effectively Make an action plan Monitor progress effectively throughout the implementation of the plan Test out ideas See things through to completion Test the solution and iterate on improvements Interpret and construct dynamic models and simulations of real world processes 	<ul style="list-style-type: none"> Emphasize on the process and not on the product Effectively confront the obstacles that arise during the implementation of ideas Be patient Take the time to appreciate the journey and understand how things work Take risks and learn from their mistakes and failures 			
2. Integrate and re-elaborate	2.1 Modify and refine existing resources	<ul style="list-style-type: none"> Search for information in digital environments Create and edit digital content Use software tools to edit text, presentations, videos and other formats Use digital tools to recover existing knowledge and skills Be aware of digital safety and security issues when editing and publishing content online 	<ul style="list-style-type: none"> Use a wide range of idea creation techniques Know about different resources and databases that can be remixed and re-used Seek out different viewpoints and perspectives and consider them carefully Take inspiration from others Balance between breadth and depth of knowledge Consider the dynamics in the existing environment and experiment with the surroundings 	<ul style="list-style-type: none"> Modify content in simple, basic ways Distinguish the specific elements of the resources that need/want to be modified or refined Identify the advantages and disadvantages of the existing resources and try to eliminate the disadvantages 	<ul style="list-style-type: none"> Judge and appreciate the work of others Recognise the value of creativity Consider licences regulation principles of use and publication of information Understand copyright and licence rules Behave independently and assumes responsibility for own behaviour and choice Develop self-confidence, self-esteem and self-efficacy Understand and question context, ownership, regulation, audiences, economic, legal, privacy and security issues of media and information Develop awareness of the importance of assessing content with a sceptical stance and with a self-awareness of their own biases and worldview 	Make basic changes to the content that others have produced.	Edit, refine and modify the content they or others have produced.	Critically elaborate and mash-up existing items of content.
	2.2 Critically elaborate and mash-up existing resources	<ul style="list-style-type: none"> Contribute to the public knowledge domain (e.g. wikis, public forums, reviews) Explore the possibilities of mixing different technologies and digital media to help them reflect and synthesize 	<ul style="list-style-type: none"> Think about the way the existing resources can be synthesized Come up with new original ideas Combine knowledge from previously disparate fields Understand the reliability of different resources Be critical towards content, based on the source, media, time and other criteria that they pose 	<ul style="list-style-type: none"> Remix different existing content Create new by mixing and matching old Cross check information sources Evaluate resources based on their relevance, accuracy, authority, currency, objectivity, coverage, usability in order to select them Compare, contrast and integrate information from different sources Distinguish and evaluate the disparate elements of each resource and combine them in a productive and meaningful way Combine bits of relevant information in novel ways Compare new information to old information in novel ways 				
3. Innovate and creatively use tools and resources	3.1 Be aware of tools and resources that can be used for creative purposes	<ul style="list-style-type: none"> Search for appropriate digital tools to support creativity and innovation Evaluate digital tools based on criteria relating to creativity and innovation 	<ul style="list-style-type: none"> See the potential of technologies and media for being creative 	<ul style="list-style-type: none"> Discover, edit and use tools and resources creatively and innovatively 	<ul style="list-style-type: none"> Lifelong learning-stay updated on the latest technology trends and new tools and resources 	Know that tools and resources can be used for creative purposes and make some creative use of them.	Use tools and resources for creative outputs and for solving problems (i.e. visualizing a problem).	Solve conceptual problems, contribute to the knowledge creation and take part in innovative actions, by taking advantage of tools and resources.
	3.2 Express themselves creatively with the use of tools and resources	<ul style="list-style-type: none"> Apply digital tools to gather, evaluate, and use information Use a variety of media to express themselves creatively (text, images, audio, and video) 	<ul style="list-style-type: none"> Think about which tool or resource suits better with their style and can express more effectively themselves 	<ul style="list-style-type: none"> Exploit technological potentials in order to express themselves effectively Use tools and resources to learn, think and express themselves 	<ul style="list-style-type: none"> Judge and appreciate the work of others Consider licences regulation principles of use and publication of information Understand copyright and licence rules Use ICT effectively and ethically in learning and life 			
	3.3 Create knowledge and solve conceptual problems in innovative ways	<ul style="list-style-type: none"> Use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions Use ICT to present and share new knowledge and solutions of a problem Use digital tools and technologies for collaborative processes, and for co-construction and co-creation of resources and knowledge 	<ul style="list-style-type: none"> Identify the essential elements in a problem as well as the interaction between these elements and use electronic tools to facilitate analysis Have in mind the traditional problem solving process and think about a new and innovative one 	<ul style="list-style-type: none"> Select appropriate tools to create new content Explore the possibilities of mixing different technologies and digital media to help them reflect, problem solve and present ideas Use visualization tools to represent data in ways never before possible Solve a theoretical problem, of individual or collective interest, through or with the support of tools and resources Make hypothesis Design coherent solutions Conceptualize possible solutions to problems or explanations that are novel Recognize consequences for solutions to problems 	<ul style="list-style-type: none"> Appreciate the adding value of tools and resources in solving problems and creating knowledge in innovative way Be pro-active in looking for solutions Recognise the potential use of knowledge, skills and understanding in solving conceptual problems 			
4. Create original works as a means of expression	4.1. Create new and original content, ideas and products	<ul style="list-style-type: none"> Use software tools and multimedia to create new content in different formats (text, presentations, videos) Create an eportfolio Create digital media objects which demonstrate creativity and imagination to present the outcome Use a variety of digital tools and resources to create collections of artefacts 	<ul style="list-style-type: none"> Get inspiration by going out into the world to seek experiences that spark the imagination See the potential of technologies and media for self-expression and content creation Think out of the box and look beyond the obviously Apply entrepreneurship way of thinking in creativity and innovation 	<ul style="list-style-type: none"> Create original works as a means of personal or group expression Create models, visualizations, simulations and representations Develop, test and refine prototypes as part of a cyclical design process Present and evaluate creative process and final product, using domain-appropriate criteria Incorporate feelings, life stances and parts of own personality and interests into work Communicate complex ideas clearly and effectively Use a deliberate design process for generating ideas, testing theories and creating innovative artefacts Be involved in negotiation with the teacher, encouraging reflection Reflect on production process and determine elements that worked well and those that might be modified in the future Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur Incorporate alternate, divergent or contradictory perspectives or ideas Provide a critique of the curriculum 	<ul style="list-style-type: none"> Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas Understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions Be open in new radical concepts Be imaginative, open-minded, flexible and adaptable Apply intellectual skills in everyday contexts and promote creative ideas Step away from an effort and return later with a fresh perspective Take risks Overcome personal fears to try something new Understand the contribution of creativity and innovation in their daily life 	Produce new content, ideas and products in a creative way.	Produce new, original content, ideas and products in a creative and expressive way.	Produce and extend new, original content, ideas and products in a creative and expressive way, presenting an innovative outcome. Effectively criticize the quality of their final content, ideas and products based on clear and tangible criteria, proving the development of their critical thinking skill.