Subject overview (6th grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Introduction to computer skills	Communications	Innovation function	**(Scientific and Technical Innovation)** - the impact of scientific and technological advances on communities and environments	The communication between human and computer using all functionality available in different perspectives, which leads to better understanding of the effect of computers on human and communities	**A** (Inquiring and analyzing) **B** (Developing ideas) **C** (Creating the solution) **D** (evaluating)	**Thinking skills:** Critical Thinking: -Consider ideas from multiple perspectives, evaluate evidence and arguments Creative thinking: - Use brainstorming and visual diagrams to generate new ideas and inquiries. -Use models and simulations to explore complex systems and issues -Propose and evaluate a variety of solutions -Practise observing carefully in order to recognize problems **Research:** -Collect and analyse data to identify solutions and make informed decisions -Process data and report results -Compare, contrast and draw connections among (multi)media resources	-Introduction to computer skills. -Basic terms of computer parts: software & Hardware and what it means. - learning the computer hardware and its Main Parts - Device Types: – Input Components – Output Components -Processing Components - Storage Components -learning the Computer Software and its parts: - Basic, utilities and applications. - learn how to navigate operating systems. -learning how to resolve problems in operating systems. -Using the Device and Task Managers. -Learning how to make Desktop Management. - learning the touch-typing skills: - Use an application that helps us to type on the keyboard in the write and fast way.

Basics of Coding	Systems	Innovation function	(Scientific and Technical Innovation) - the impact of scientific and technological advances on communities and environments	Creating and implementing systems by humans with their Innovation aspects, interacts with the Scientific and Technical Innovation.	A, B, C, D	**Self-Management:** -Plan short- and long-term assignments; meet deadlines -Develop new skills, techniques and strategies for effective learning -Identify strengths and weaknesses of personal learning strategies (self-assessment) **Organization:** -Locate, organize, analyse, evaluate, synthesize and ethically use information from a variety of sources and media (including digital social media and online networks) -Keep an organized and logical system of information files/E-portfolio **Reflection:** - Practise observing carefully in order to recognize problems **Affective Skills Collaborative :** -Practise positive thinking	-Introduction to coding programs & languages. -Start explaining ways of technology impacts in our lives, with examples both boys and girls will care about saving lives, helping people, connecting people, etc.). -Explain the list things that use code in everyday life, or a list of careers the require knowledge of coding or computers. -Start creating a gallery walk so students can see each other's work. -Start using the first coding statements & explain how it's going to affect the program. -Start learn special topics -Start entering commands in scratch to perform calculations and create variables. -Extract particular elements from coding. -Start learning the basic concepts of Coding using blocks with drag and drop programming. - Create an effects for a news video by using scratch.

							-They will also learn the syntax of calling a function that is included in the blocks. -Start first projects by choosing program with guidance and will submit it and document the process on their E-Portfolio.

Subject overview (7th grade) 2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
2D Animation Basics	**Communication**	**Innovation** **Markets and Trends**	**Personal and cultural expression** Students will explore the basics of Animation and innovative components.	Creation of animation inventions can diffuse into a global market through successful communication.	A, B, C, D	**Thinking skills:** Critical Thinking: -Consider ideas from multiple perspectives, evaluate evidence and arguments Creative thinking: - Use brainstorming and visual diagrams to generate new ideas and inquiries. -Use models and simulations to explore complex systems and issues -Propose and evaluate a variety of solutions -Practise observing carefully in order to recognize problems **Research:** -Collect and analyse data to	Introduction to 2D Animation Basics . Introduction to software (adobe animate CC) Advantages and disadvantages of 2D Animation Samples (Movies, materials). Text. Create 2D Animation. Export as a final file (extension).

						identify solutions and make informed decisions	
						-Process data and report results	
						-Compare, contrast and draw connections among (multi)media resources	
						Self-Management:	
						-Plan short- and long-term assignments; meet deadlines	
						-Develop new skills, techniques and strategies for effective learning	
						-Identify strengths and weaknesses of personal learning strategies (self-assessment)	
						Organization:	
						-Locate, organize, analyse, evaluate, synthesize and ethically use information from a variety of sources and media (including digital	

						social media and online networks) -Keep an organized and logical system of information files/E-portfolio **Reflection:** - Practise observing carefully in order to recognize problems **Affective Skills Collaborative :** -Practise positive thinking	
Graphic Design	**Communication**	**Innovation** **Invention**	**Personal and cultural expression** Students will explore the basics of Animation and innovative components	The artistry in an innovative design can communicate cultural identity.	A, B, C, D	**Thinking skills:** Critical Thinking: -Consider ideas from multiple perspectives, evaluate evidence and arguments Creative thinking: - Use brainstorming and visual diagrams to generate new ideas and inquiries. -Use models and simulations to explore complex systems and issues	Introduction to Graphic Design.. Introduction to software (adobe illustrator) Advantages and disadvantages of graphic design Samples (Text, materials). Create Vector designs. Export as a final file (extension).

						-Propose and evaluate a variety of solutions -Practise observing carefully in order to recognize problems **Research:** -Collect and analyse data to identify solutions and make informed decisions -Process data and report results -Compare, contrast and draw connections among (multi)media resources **Self-Management:** -Plan short- and long-term assignments; meet deadlines -Develop new skills, techniques and strategies for effective learning -Identify strengths and weaknesses of personal	

						learning strategies (self-assessment) **Organization:** -Locate, organize, analyse, evaluate, synthesize and ethically use information from a variety of sources and media (including digital social media and online networks) -Keep an organized and logical system of information files/E-portfolio **Reflection:** - Practise observing carefully in order to recognize problems **Affective Skills Collaborative :** -Practise positive thinking	

Robotics "Basics of Electronics"	Systems	Invention Function sustainability	Globalization and Sustainability The interconnectedness of human-made systems and communities.	Electronics projects can be influenced by developments in technology invention of systems, enhancing their designs and functions will meet globalization and sustainability	A, B, C, D	**Thinking skills:** Troubleshoot systems and applications. **Communication skills:** Participate in, and contribute to, digital social media networks. **Self-management skills:** Bring necessary equipment and supplies to class. **Research skills:** Access information to be informed and inform others. **Social skills:** Manage and resolve conflict, and work collaboratively in teams.	• Introduction to Basic electronics. • Explain the ways in which we use and rely on electronics in our everyday lives. • Explain the top five electronic devices they couldn't live without, providing rationale for the ways in which our lives would be significantly different without electronics. • List of relevant vocabulary (e.g. circuit, signal, power, input, output, wire). • Explain to students that they are going to begin experimenting and investigating with circuits to better understand how these electronics work. • Start making a functioning circuit. • Assembling the circuit through

							experimentation and trial and error, students will naturally learn how to assemble. • Start running the functional circuit and compare it with the Guide.

Subject overview (8ᵗʰ grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
3D Design.	*Development*	*Form* *Function*	***Scientific and technical innovation*** *Exploration:* Systems, models, methods; products, processes and solutions	*3D products must be designed and developed as a computer model to enhance their forms and functions before creating the actual product.*	A, B, C, D	**Communication skills**: Collaborate with peers, experts or others, employing a variety of digital environments and media. **Social skills**: Manage and resolve conflict and work collaboratively in teams, negotiate effectively, Give and receive meaningful feedback. **Self-management skills**: Keep and use a weekly planner for assignments, keep an organized and logical system of information files/notebooks, bring necessary equipment and supplies to class **Reflection skills**: Identify strengths and weaknesses of personal learning strategies (self-assessment).	• How to practice Google Sketch-Up and its features. • How to use the Google Sketch-Up Warehouse and edit its components. • Rotating, Color Filling, Resizing. • Freehand Drawing. • Arcs and Lines, adjustment, typing tool…. • *Create different and small tasks*

Subject overview (8th grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Introduction to Photoshop.	**Communities**	**Innovation**	Personal and cultural expression	Innovation of designing a small 2D yearbook and/or other designs will reflect the communities' personal and cultural expressions.	A, B, C, D	**Social skills**: Manage and resolve conflict and work collaboratively in teams, negotiate effectively, Give and receive meaningful feedback. **Self-management skills:** Keep and use a weekly planner for assignments, Keep an organized and logical system of information files/notebooks. **Reflection skills**: Identify strengths and weaknesses of personal learning strategies (self-assessment). **Research skills**: Identify primary and secondary sources. **Thinking skills**: Interpret data, evaluate evidence and arguments, Troubleshoot systems and applications.	● Introduction to types of pictures, definitions, colors and size. ● Introduction to the software (Photoshop) ● Start using Photoshop Tools (Move tool, paint brush Tool, magic wand tool, selection tool....). ● Photo Retouching (Crop tool, color levels, color balance...). ● Advance layer technique (Rulers, layer mask, aligning layer, layer adjustment, typing tool...). ● Create different and small tasks (Combine many pictures in one, magazine cover, 3D pictures).

Subject overview Unit One (8ᵗʰ grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Tidy Kit	**Systems**	**Innovation Adaptation Collaboration Resources**	**Scientific and technical innovation:** Products.	Innovation and collaboration are the key elements when adaptation and producing 3D 'recycled' products using scientific and technical innovation systems.	A, B, C, D	**Social skills**: Manage and resolve conflict and work collaboratively in teams, negotiate effectively, Give and receive meaningful feedback. **Self-management skills**: Keep and use a weekly planner for assignments, Keep an organized and logical system of information files/notebooks. **Reflection skills**: Identify strengths and weaknesses of personal learning strategies (self-assessment). **Research skills**: Identify primary and secondary sources. **Thinking skills**: Interpret data, evaluate evidence and arguments, Troubleshoot systems and applications.	● Design cycle process. ● Communications skills will be reviewed, since they need to communicate with the client\customer. ● Following and emphasis on safety measures while using workshop tools. ● Using recycled materials to create a disk organizer – tidy kit.

Subject overview Unit One (9th grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Creating Short Films	Communication	**Innovation** *Form* *Function*	**Identities and Relationships:** identity formation, self esteem, status, roles and role models	Before creating the actual product, the innovation of creating short films will necessitate communication with communities in order to improve their forms and functions.	A, B, C, D	*Thinking skills:* Analyze products and suggest how to improve them. *Social skills:* Demonstrate active listening when interviewing clients. *Communication skills:* Develop detailed design drawings for a manufacturer. *Self-management skills:* Plan the creation of a solution. *Research skills:* Find out how to translate text into short films.	• Introduction to films • Introduction to software (Video Editing – Camtasia studio, iMovie) • Advantages and disadvantages of films • Samples (Movies). • Story Board. • Create the short films. • Export as a final file (extension).

Subject overview Unit Two (9th grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Introduction To 2D Animation with Coding	Communication	**Innovation invention**	**Scientific and technical innovation:** systems, models, methods; products, processes and solutions	The innovation of 2D animation with code will demand connection with communities before generating the actual product in order to better their invention.	A, B, C, D	*Thinking skills:* Analyze products and suggest how to improve them. *Social skills:* The ability to analyze and link societal problems and bring them out through animation. *Communication skills:* Develop detailed design drawings for a manufacturer. *Self-management skills:* Plan the creation of a solution. *Research skills:* Find out how to translate text into Animation	• Introduction to 2D Animation • Introduction to software (Adobe Animate CC) • Advantages and disadvantages of Animation • Samples (2D Animations). • Story Board. • Create the 2D Animation Project. • Export as a final file (extension).

Subject overview Unit One (10th grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Interactive 2D Animation with Coding.	Communication	**Innovation Invention**	**Scientific and technical innovation:** systems, models, methods; products, processes and solutions	The innovation of Interactive 2D animation with Advanced code will demand connection with communities before generating the actual product in order to better their invention.	A, B, C, D	*Thinking skills:* Analyze products and suggest how to improve them. *Social skills:* The ability to solve societal problems by using animation and solving them in a simple way. *Self-management skills:* Plan the creation of a solution. *Research skills:* Find out how to translate text into interactive 2D Animation	• Introduction to Interactive 2D Animation with coding. • Introduction to software (Adobe Animate CC) • Advantages and disadvantages of Interactive 2D Animation • Samples (Interactive 2D Animations). • Story Board. • Create the Interactive 2D Animation Project. • Export as a final file (extension).

Subject overview Unite Two (10ᵗʰ grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Creating Interviews Short Films	Communication	**Innovation** *Form Function*	**Identities and Relationships:** identity formation, self-esteem, status, roles and role models	Before creating the actual product, the innovation of creating Interviews short films will necessitate communication with communities in order to improve their forms and functions.	A, B, C, D	**Thinking skills:** Analyse products and suggest how to improv e them. **Social skills:** Demonstrate active listening when interviewing clients. **Self-management skills:** Plan the creation of a solution. **Research skills:** Find out how to translate text into short films.	- Introduction to Interviews Short films - Introduction to software (Video Editing – Camtasia studio, iMovie) - Advantages and disadvantages of films - Samples (Interviews). - Story Board. - Create the short films. - Export as a final file (extension).

Subject overview Unite Two (10th grade)   2021-2022

Unit title	Key concept	Related concept(s)	Global context	Statement of inquiry	Objectives	ATL skills	Content
Radio show podcasting	Communities	**Adaptation** **Form** **Perspective**	**Identities and Relationships:** identity formation, self-esteem, status, roles and role models	Talk show podcasting might adapt the form in which information could be introduce solutions for communities' issues from perspective of young people	A, B, C, D	**Thinking skills:** Interpret data, Evaluate evidence and arguments. **Social skills:** Demonstrate active listening when interviewing clients. **Self-management skills:** Plan the creation of a radio show podcasting. **Research skills:** Find out how to translate collected data into a radio show.	- What is podcasting, viewing podcasts? - Working with podcast viewers. - Working with Audacity (audio editing software). - Creating new audio track. - Edit audio tracks. - Saving audio tracks. - Importing sounds. - Using effects. - Recording sound.