

Subject Group Overview Design

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Year 1: Grade 6

Unit title:	Key concept:	Related concept(s):	Global context and exploration:	Statement of inquiry:	Objectives:	ATL Skills:	Content:
Teaching through Programming 15 Weeks	Development	Function and Invention	Scientific and Technical Innovation	The development of functioning solutions requires innovation and invention.	A i,ii,iii,iv B i,ii,iii,iv C i,ii,iii,iv D i,ii,iii,iv	Communication: Use a variety of media to communicate with audiences, and organize and depict information logically.	Students will <ul style="list-style-type: none"> Continue development of precise communication and process-oriented creation using the design cycle. learn the basics of making programs using code practice logical sequencing of commands to accomplish a goal. use animations to teach a science concept to others.
Communicating Emotions: A Call to Action (English/Design IDU) 12 Weeks	Creativity	Design, Adaptation, and Self Expression	Personal and Cultural Expression	Artists adapt communication methods to provoke a particular response in their audience.	A i,ii,iii,iv B i,ii,iii,iv C i,ii,iii,iv D i,ii,iii,iv	Communication and Self Management	Students will <ul style="list-style-type: none"> Continue development of precise communication and process-oriented creation using the design cycle. Analyze spoken word poetry and write an example of their own about a current world issue. Practice and reflect on how to speak with emphasis and emotion. Create storyboards to plan the process of video creation Record, edit, get feedback, make final edits of short video including learning and using common video effects.

Year 2: Grade 7

Unit title:	Key concept:	Related concept(s):	Global context and exploration:	Statement of inquiry:	Objectives:	ATL Skills:	Content:
Designing with 3D Modeling 16 Weeks	Creativity	Ergonomics, Function	Identities and Relationships	Innovative educational institutions create learning spaces that transform the way that students and teachers work together.	A i,ii,iii,iv B i,ii,iii,iv C i,ii,iii,iv D i,ii,iii,iv	Self Management: Let goals that are challenging and realistic; Use technology effectively	Students will <ul style="list-style-type: none"> Continue development of precise communication and process-oriented creation using the design cycle. Learn to use 3D modeling software to design and then model an innovative classroom of their choice. Learn about basic 3d design concepts such as inference scaling, grouping and building clean models.
Intermediate Programming - Controlling Electronics (Robotics) 16 Weeks	Systems	Function, Innovation	Scientific and Technical Innovation	Successful systems often require innovation in order to function	A i,ii,iii,iv B i,ii,iii,iv C i,ii,iii,iv D i,ii,iii,iv	VIII. Critical thinking skills - Analysing and evaluating issues and ideas IX. Creative thinking skills - Generating novel ideas and considering new perspectives	Students Will <ul style="list-style-type: none"> Continue development of precise communication and process-oriented creation using the design cycle. learn about creating and programming robots by creating an arcade game suitable for primary students. learn the basics of controlling electronic equipment such as sensors, motors, and servos. utilize SNAP block programming tools to control Hummingbird electronics. Use and interpret a range of discipline-specific terms and symbols

Year 3: Grade 8

Unit title:	Key concept:	Related concept(s):	Global context and exploration:	Statement of inquiry:	Objectives:	ATL Skills:	Content:
Solving Problems with Design - Choosing Challenges 16 Weeks	Systems	Function, Invention	Scientific and Technical Innovation	The development of a quality product often requires the innovation made possible by multiple perspectives.	A i,ii,iii,iv B i,ii,iii,iv C i,ii,iii,iv D i,ii,iii,iv	Self Management: Keep an organized and logical system of information, Select and use technology productively.	Students will: <ul style="list-style-type: none"> Continue development of precise communication and process-oriented creation using the design cycle. Learn IT skills based on the challenge they choose to design a solution to. Practice presentation and reflection skills as they do at the end of the unit demonstration and feedback session with their clients.
Mastering the Design Cycle - Student Choice Unit Standard Current Unit 16 Weeks	Development	Function, Invention	Scientific and technical innovation	The invention of functioning solutions often involves a process of growth through iterative improvements.	A i,ii,iii,iv B i,ii,iii,iv C i,ii,iii,iv D i,ii,iii,iv	Creative thinking skills Create novel solutions to authentic problems Transfer skills Combine knowledge, understanding and skills to create products or solutions	Students will: <ul style="list-style-type: none"> Continue development of precise communication and process-oriented creation using the design cycle. Learn IT skills based on the challenge they choose to design a solution to. Practice presentation and reflection skills as they do at the end of the unit demonstration and feedback session with their clients.

Year 1-5 Key concepts (Total)									
Development	2	Creativity	2	Systems	2				

Year 1-5 Related concepts (total)									
Adaptation	1	Design	3	Self-Expression	1				
Collaboration	1	Ergonomics	1	Function	3				
Invention	1	Innovation	1						