

**Design – Grade 7**

Topic/Unit Title	Key Concept	Related Concepts	Global Context /Exploration	ATL skills	Statement of Inquiry	Summative Assessment	Assessment Objectives
Future sustainable city	Communities Development Global interactions	Creativity Culture	Globalization and sustainability.	Thinking skills – Thinking creatively  Communication Skills – non-verbal communication  Social Skills - global/intercultural awareness and sensitivity  Self-management skills – time management meeting deadlines  Research skills – Formulating research questions collecting, organizing, interpreting and presenting information	Governments, communities and individuals can develop plans to further develop our cities, to make them more functional, sustainable and a better place to live throughout one’s lifetime.	Assessment 1: Inquiry and Analysing: Students thoroughly research SDG 11 ( sustainable cities and communities) and use the city of Dubai, and a city of their choice, to see how urban planning impacts a city and the importance of planning a city effectively which will improve the standard of living, and quality of life in that community. They will use their own community for primary research and highlight the areas for improvement, as well as the elements that work well.  Assessment 2: Developing Ideas: Students will be tasked in completing a design specification specifically for their hexagonal district design. Students will develop their communication skills using both practical means of illustration as well as finalising ideas using Computer aided design (CAD). Students will be exposed to developing 2D graphics into 3D products by experimentation and modelling their design. It will be key at this stage that the class work as a group to ensure an integrative city.  Assessment 3: Creating the Solution: Students will plan and structure the manufacturing workflow of how they expect to make their city. This will be produced visually as a graphical flowchart negative feedback loops will be introduced in order to ensure high quality output. Students will work independently to construct their district design whilst making sure to document the process through means of creating a working manufacturing diary, as well as ensuring that it is in line with the overall class design. Final design is presented with the	Assessment 1: Inquiry and Analyzing: i. explains and justifies the need for a solution to a problem ii. states and prioritizes the main points of research needed to develop a solution to the problem, with minimal guidance iii. describes the main features of an existing product that inspires a solution to the problem iv. presents the main findings of relevant research. Assessment 2: Developing Ideas: i. develops a list of success criteria for the solution ii. presents feasible design ideas, using an appropriate medium(s) and outlines the key features, which can be correctly interpreted by others iii. presents the chosen design describing the key features iv. creates a planning drawing/diagram, which outlines the main details for making the chosen solution. Assessment 3: Creating the Solution: i. outlines a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrates excellent technical skills when making the solution iii. follows the plan to create the solution, which functions as intended and is presented appropriately iv. lists the changes made to the chosen design and plan when making the solution Assessment 4: Evaluation: i. outlines simple, relevant testing methods, which generate data, to measure the success of the solution ii. outlines the success of the solution against the design



						<p>alterations/improvements made outlined and discussed.</p> <p>Assessment 4: Evaluation: Students develop their understanding of how to create tangible tests that will check to see the success of the final produced product. Tests are conducted and then analysed. Students will set up online surveys with their target market to gain specific user feedback on aesthetics . Final set of improvements then stated with clear vision of how the maze could be developed further to showcase such improvements. The city will be put on display for the school community to come and view and provide feedback prior to it's proposed development.</p>	<p>specification based on authentic product testing iii. outlines how the solution could be improved iv. outlines the impact of the solution on the client/target audience.</p>
Picture frame design	Self management, critical thinking, design for innovation	Materials, form and educational development with manufacturing techniques	Orientation in space and time - which explores personal histories; homes and journeys; turning points in humankind; discoveries; explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations from personal, local and global perspectives	Thinking skills – Thinking creatively Communication Skills – non-verbal communication Social Skills - global/intercultural awareness and sensitivity Self-management skills – time management meeting deadlines Research skills – Formulating research questions collecting, organizing, interpreting and presenting information	Developing ideas can produce aesthetically pleasing work and innovative projects to meet a specific purpose	<p>Assessment 1: Inquiry and Analysing: Students thoroughly research the global context of "Orientation of time and space" to take inspiration from past, present and future designs to help them to create their Frame design. The studentas will also be researching the various materials that will be made available to them in order to decide which one suits them best, which properties of materials are best fit for their design, and which materials are most suited to the processes they will to utilise.</p> <p>Assessment 2: Developing Ideas: Students will be tasked in completing a design specification specifically for their frame design. Students will develop their communication skills using both practical means of illustration as well as finalizing ideas using Computer aided design (CAD). Students will be exposed to developing 2D graphics into 3D products by experimenting and prototyping their maze designs.</p> <p>Assessment 3: Creating the Solution: Students will plan and structure the manufacturing workflow of how they expect to make their frame. This will be produced visually as a graphical flowchart negative feedback loops will be introduced</p>	



						<p>in order to ensure high quality output. Students will work independently to construct their maze design whilst making sure to document the process through means of creating a working manufacturing diary. Final design is presented with the alterations/improvements made outlined and discussed. Assessment 4: Evaluation: Students develop their understanding of how to create tangible tests that will check to see the success of the final produced product. Tests are conducted and then analyzed. Students will set up online surveys with their target market to gain specific user feedback on aesthetics . Final set of improvements then stated with clear vision of how the maze could be developed further to showcase such improvements.</p>	
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Service as Action

When the students have completed each section of the design cycle, their work will be graded against the assessment criteria. At the end of the project the students will have the opportunity to reflect on the product they have produced, in the context of the inquiry question. Students will gauge whether their design is suitable for a community who wish to live in a safe and inclusive environment. Students will have a deeper understanding of user centered design and how they need to develop their designs in the future to be tailored to specific needs. Students would have used various technical machines and tools ( Vacuum former, profile cutter, fret saw, 3D printer ) in the manufacturing phase which would build on their knowledge of both materials and potential manufacturing processes for future projects.

**Please note:** At times areas of the curriculum will change based on the learning needs and interests of the students.





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