

## ICT & DT Scope & Sequence for Grade 7

Term	Theme	UAE/CC Standards Ref.	SCF	Concept	Unit Topic/Key Skills	Bloom's Taxonomy Level	Assessment Criteria	Resources
Term 1(1 <sup>st</sup> week in September)  DT	Introduction to design and technology	Designing and programming	Digital Competency:  <i>Recognise the role in design and technologies occupations and explore factors, including sustainability that impact on the design of products, services and environments to meet learning needs</i>	To motivate and learn rich investigations and exploration into the world of machine and mechanism  Explore how technologies use forces to create movement in products  <b>Keyword Vocabulary</b> <ul style="list-style-type: none"> <li>• E Safety: How to be safe during the use of internet</li> <li>• Rules</li> <li>• Design</li> <li>• technology</li> </ul>	Classroom Rules.  How to be safe on using Lego boxes.	<b>Remember</b> Remember and memorize the important of studying design and technology.  <b>Understand</b> To know the meaning of robotics  To recognise the materials on their boxes and know the deferent between each material.	-Recognize basic  -Knowing the linkage between legos  -building an imaginary model.	Mindstorm software  Lego education 45544
Term 1 (Sept-October)	Romans	Designing and programming	Creativity: <i>To explore program and use software to modify existing program. Describe difference and how changes in the program affect the movement of the robot.</i> Problem solving <i>Use robot to solve a problem. For example, collecting cans to recycle. Describe the features and movement of the robot</i> Communication & collaboration	To be able to follow classroom rules responsibly and use school resources ethically and in a safe manner.  Follow building instructions to build mindstorm, NXT or EV3 robots. Describe the features and movement of the robot. Design a set of instructions for the robot before programming the robot to follow the instructions.  Identifying, gathering and playing with materials,	A trip to Roman	<b>Remember</b> Remember classroom rules set and memorize the rules and regulations.  <b>Understand</b> To understand the mean of problem solving and how they can solve the issues that they face  <b>Apply</b> To demonstrate that they can use and follow rules and regulations set.	To be able to distinguish the use of each sensor and when we will use it.  To be able to program the robot motion.	Lego education 45544  Internet

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			<p>To be able to work together as a team and share the responsibilities.</p> <p>Critical thinking: To think how can use our materials to build a Roman Amphitheatre.</p>	<p>components, tools and equipment to generate personal design ideas</p> <p>To learn about the sensors that is important in building the robot.</p> <p>To make challenges between groups for the best designs.</p>				
Term 1(November-December)	Romans	CS4;CS5;CS6;CS7;B1;IS4	<p>Creativity &amp; Team working</p> <p><i>recognise ICT as a creative tool for recording their planning and thinking and learning</i></p> <p><i>Work collaboratively online with other students under teacher supervision.</i></p> <p><i>Identify ways in which technology is used in the workplace and in society.</i></p> <p><i>Explain that some Web sites and search engines may include sponsored commercial links.</i></p> <p><i>Analyse media messages and determine if their purpose is to inform, persuade, or entertain.</i></p> <p><i>Explain how hardware and applications can enable people with disabilities to learn.</i></p> <p>Collaborative: Collaboratively design, develop, publish and present products using technology resources that demonstrate and communicate curriculum concept.</p>	<p>Create a slide show about some other cultures like the Romans culture.</p> <p><b>To be able to create a Slide show</b></p> <p>(I)Insert a slide (I)Add sound (I)Add graphic (I)Add a variety of transitions (I)Show slideshow</p>	<p>A trip to Roman</p> <p>Others cultures and traditions</p>	<p><b>Remember:</b> Remember the basics of using tablets Remember how to save images</p> <p><b>Understand &amp; Apply</b> Identifies the tools and functions of power point.</p> <p><i>Apply</i> Apply specific criteria to evaluate information from a range of sources To apply a slideshow that show us some examples about mysterious materials</p>	<p>- Slideshow should contain everything we studied about and designed will.</p>	<p>Tablets</p> <p>Smartboard</p> <p>Internet</p>

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<p>Term 2 (January-February)</p> <p>DT</p>	<p>Vikings</p>	<p>Designing and programming</p>	<p>Independent learning <i>Work independently, or collaboratively when required, to plan, safely create and communicate sequenced steps</i></p> <p>Creativity: <i>To be able to describe the purposes of my products and point out the design features of the products that will appeal to the person or people who I designed it for (intended users)</i> <i>To be able to explain how different parts of my products work</i></p>	<p>To design the robots and program them on mindstorm and connect them to their tablets.</p> <p>To use the wedo Lego education in solving problems</p> <p><b>Keyword Vocabulary</b></p> <p>Scientist Mindstorm Machine Programming Motors Touch Sensors Color sensor Ultrasonic sensor Gyro sensor Problem solving Speed Time Axels Brick Power Display Beams pins</p>	<p>Vikings</p>	<p><b>Understand</b> To understand how can the animals move</p> <p><b>Apply</b> To program the animal in Lego education to move.</p>	<p>Can talk about my design ideas and what I am making Can say what I think about my products and ideas against design criteria Can suggest how my products could be improved Can observe the work of my model and predict the better things to add. Can investigate products and make comments about how well they have been designed Can research some products to find out who designed and made them</p>	<p>Lego education 45544</p> <p>Internet</p>
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<p>Term 2 (March - April)</p> <p>ICT</p>	<p>Inner Space (Feelings/reflection)</p>	<p>IN7, CT4. CC4. CC3.  CC5.</p>	<p>Digital Competency <i>Use Web browsing to access information (e.g., enter a URL, access links, create bookmarks/favorites, print Web pages).</i></p> <p>Collaboration</p> <p>Collaboratively design, develop, publish and present products using technology resources that demonstrate and communicate curriculum concept.</p> <p>Plan, design, and develop a website to present research findings and creative ideas effectively, citing sources.</p>	<p>To be able to use HTML language in creating a webpage</p> <p>To be able to understand the codes of HTML and how to use them</p> <p><b>Keyword Vocabulary</b></p> <ul style="list-style-type: none"> <li>• Hyper Text Markup Language</li> <li>• Font</li> <li>• Style</li> <li>• Background</li> <li>• Head</li> <li>• Title</li> <li>• Body</li> <li>• Heading</li> <li>• Align</li> <li>• Horizontal</li> <li>• Vertical</li> <li>• Image</li> <li>• PNG</li> <li>• JBG</li> <li>• GIF</li> </ul>	<p>discover who they are and how others see them</p>	<p><b>Remember</b> Remember and memorize the important of designing</p> <p><b>Understand</b> students to investigate the HTML codes and its means</p> <p><b>Apply:</b> To design a webpage about the things they are interested in.</p>	<p>Can make appropriate lists of tools, equipment and materials that I will need to make my product. Can make step-by-step plans as a guide to making particular parts of my product I use my design criteria as I design and make my products use my design criteria to evaluate my completed products can investigate products and make comments about how well they meet user needs and wants Can investigate products and make comments about how well they work and achieve their purposes can investigate products and make comments about why certain materials have been chosen can identify the strengths and areas for development in my ideas and products</p>	<p>Notepad</p> <p>Google chrome for searchind</p>
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