S2 Broad General Education Plan –   Breadth, Depth, Challenge and Skills

August-October		October - December			January - April		April - May	
Learning and Teaching Focus (Es and Os) **Workshop – Making a simple phone holder out of pine and acrylic** Learning how to mark out wood and plastic. As well as and how to safely cut the shape out, using all the correct tools for the material. How to apply a finish to different materials. **TCH 3-09a**	**Learning and Teaching Focus (Es and Os)** **Creative Design – Marseum** Designing and creating a Museum exhibition for Mars 2050. Using creativity, teamwork and initiative to conceptualize a museum exhibition. **TCH 3-01a**	**Learning and Teaching Focus (Es and Os)** **Computer aided design. 3D modelling using Autodesk Inventor** Learning skills in how to 2D sketch, dimension, extrude for simple parts. Learning how to assemble multiple parts together and create production drawings. **TCH 4-11a**	**Learning and Teaching Focus (Es and Os)** **Workshop – Creating a burger flipper out of metal and acrylic.** Learning how to work with metal and plastic safely. The different tools we use for each materials. How to apply a polished finish to metal. **TCH 3-10a**	**Learning and Teaching Focus (Es and Os)** **Engineering Science – Creating Basic Circuits using Yenka.** Learning how to work create different circuits using different logic gates. **TCH 3-12a**	**Learning and Teaching Focus (Es and Os)** **Subject Tasters – Designing, Testing, Manufacturing and Packaging a Fidget Cube** Learning about the different subjects the Design and Technology department has to offer for S3 options. Utilising skills from Creative Design, Engineering Science, Practical Skills and Graphic Communication	**Learning and Teaching Focus (Es and Os)** **Desktop Publishing - Branding** Learning how to create effective logos using DrawPlus. Recreating existing logos. **TCH 3-11a**	**Learning and Teaching Focus (Es and Os)** **Workshop – Multimedia project** Learning how to work with material safely and independently. Enhancing skills based on pupil feedback **TCH 3-10a**	**Learning and Teaching Focus (Es and Os)** **Graphic Communication –** Isometric Sketching Learning how to create 3D isometric sketches correctly. Using tools efficiently and neatly in the classroom.
Assessment Approach and evidence gathered: Practical Model will be completed and then graded. Input from teacher and pupil on good points, what you have learned and how you could improve for next time. Teacher observations of how you work and how safely you work will count towards your grade. Photographic evidence will be taken of model.	**Assessment Approach and evidence gathered:** Portfolio – this is sheets of work where all your different types of drawing will be completed.	**Assessment Approach and evidence gathered:** 3D Model will be completed and then graded. Input from teacher and pupil on good points, what you have learned and how you could improve for next time. Teacher observations of how you work and how confidently you work will count towards your grade. Screenshot evidence of model will be taken.	**Assessment Approach and evidence gathered:** Practical Model will be completed and then graded. Input from teacher and pupil on good points, what you have learned and how you could improve for next time. Teacher observations of how you work and how safely you work will count towards your grade. Photographic evidence will be taken of model.	**Assessment Approach and evidence gathered:** Portfolio – this is sheets of work where all your different types of circuit workings will be completed. Engineering Assessment.	**Assessment Approach and evidence gathered:** Portfolio and Practical Model. Pupils will be observed closely on their skills in each topic. Input from teacher and pupil on good points, what you have learned and how you could improve for next time. Learning conversations with teacher and pupil about strengths and future pathways. .	**Assessment Approach and evidence gathered:** Portfolio – this is sheets of work where all your different types of logos will be completed.	**Assessment Approach and evidence gathered:** Practical Model will be completed and then graded. Input from teacher and pupil on good points, what you have learned and how you could improve for next time. Teacher observations of how you work and how safely you work will count towards your grade. Photographic evidence will be taken of model.	**Assessment Approach and evidence gathered:** Portfolio – this is sheets of work where all your different types of drawing will be completed.
Key Skills: Literacy/Numeracy/ HWB/Digital Literacy HWB - Safety in the workshop and classroom. HWB 3-16/17a Numeracy: Measuring and marking to stated tolerance. MNU 4-11a META SKILLS: Initiative Creativity Leading	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. Following instructions. HWB 4-11a CAD design skills Digital literacy – Using Inventor 3D modelling programme. Improving computer skills. TCH 4-01a Numeracy – working within set tolerances. MNU 4-01a META SKILLS Leading Curiosity Creativity Initiative	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. Following instructions. HWB 4-11a CAD design skills Digital literacy – Using Inventor 3D modelling programme. Improving computer skills. TCH 4-01a Numeracy – working within set tolerances. MNU 4-01a META SKILLS Leading Curiosity Creativity Initiative	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. HWB 3-16/17a Numeracy: Measuring and marking to stated tolerance. MNU 4-11a META SKILLS Focusing Initiative Adapting	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. HWB 3-20a Numeracy: Measuring and marking to stated tolerance. MNU 3-01a Computing skills TCH 4-15a LIT 3-24a META SKILLS Critical Thinking Focus Sense Making Leading	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. HWB 4-19a HWB 3-20a Following instructions CAD design skills Digital literacy Numeracy META SKILLS Communicating Feeling Collaborating Leading Curiosity Integrity	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. HWB 3-19a Following instructions DTP Skills Digital literacy – Improving computer skills. Literacy, Numeracy MTH 3-16a META SKILLS Creativity Initiative Communicating	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. HWB 3-20a Numeracy: Measuring and marking to stated tolerance. MNU 3-01a Computing skills TCH 4-15a LIT 3-24a META SKILLS Critical Thinking Focus Sense Making Leading	**Key Skills: Literacy/Numeracy/ HWB/Digital Literacy** HWB - Safety in the workshop and classroom. Following instructions Digital literacy – Improving computer skills. Literacy, Numeracy.

Skills for learning, work and life	Skills for learning, work and life	Skills for learning, work and life	Skills for learning, work and life	Skills for learning, work and life	Skills for learning, work and life	Skills for learning, work and life	Skills for learning, work and life	Skills for learning, work and life
Developing hand and motor skills. To improve confidence in using tools. Developing problem solving skills. Understanding how items go together and work.	Developing Critical Thinking Skills. Learning and developing communication skills for presenting final work. Digital Literacy. .	Digital Literacy. Gaining an understanding of how to use CAD and improving computer knowledge	Developing hand and motor skills. To improve confidence in using tools. Developing problem solving skills. Understanding how items go together and work.	Development of digital literacy skills through use of programming and simulation. Developing problem solving skills.	Gaining an understanding of the design process from concept to final product and the importance of each role and stage.	Development of digital literacy skills through the design process.	Digital Literacy. Gaining an understanding of how to use CAD and improving computer knowledge. .	Development of hand and sketching skills. Gaining an understanding of how to visualise and sketch 3D objects
Home Learning Tools – Wood/Plastic Types of wood – Softwood/Hardwood Types of plastic – Thermoplastic/thermosetting Joining methods – Wood/Plastic Safety	**Home Learning** Research – context for project	**Home Learning** 2D CAD commands 3D CAD commands	**Home Learning** Materials – Tools – Metal/Plastic Materials – Metal/Plastic Finishing – Metal/Plastic Safety	**Home Learning** Yenka worksheet	**Home Learning** Discussion at home regarding Design & Technology options for S3	**Home Learning**	**Home Learning**	**Home Learning** Sketching task – 3D object from home