

Subject: Design Technology (Projects may be taught in different terms due to equipment rotation)		Year Group: 7
<p>Term 1 Key Focus/Topic(s)</p> <p>Marble run</p> <ul style="list-style-type: none"> • Problem solving • Team work • Testing and Evaluating • Familiarise with Google Classroom <p>Toothbrush</p> <ul style="list-style-type: none"> • General workshop health and safety. Sign off pillar drill and heat strip on passport. • Know the importance of specification. • Presenting data - pictographs and pie charts. • CAD - 2D Design and Space Claim. • Card Modelling • Flow diagrams • Developing a design 	<p>Term 2 Key Focus/Topic(s)</p> <p>Maze</p> <ul style="list-style-type: none"> • Gent saw (sign off on passport) • Mitre block (sign off on passport) • Hand drill (sign off on passport) • Measuring • Glue application • Vice • File • Planning and developing a design • CAD - Sketch-up Soft and hardwoods. • Manufactured boards. 	<p>Term 3 Key Focus/Topic(s)</p> <p>Maze</p> <p>(See Term 2)</p>
<p>Term 1 Assessment Opportunities :</p> <ul style="list-style-type: none"> • Testing the marble run – class scoring. • Signed off H&S passports for heat strip. • Grade for CAD, and finished practical. • End of STEM, H&S and Toothbrush test. • Weekly Google Classroom quizzes & tests. 	<p>Term 2 Assessment Opportunities:</p> <ul style="list-style-type: none"> • Maze CAD • Weekly Google Classroom quizzes & tests. 	<p>Term 3 Assessment Opportunities:</p> <ul style="list-style-type: none"> • Maze practical grade. • Weekly Google Classroom quizzes & tests.
<p>Term 4 Key Focus/Topic(s)</p> <p>Aluminium Phone Holder</p> <ul style="list-style-type: none"> • Coping saw (sign off on passport) • Drawing and rendering. • Hand drill (sign off on passport) • Working with aluminium. • Metals • Quality control • Evaluating 	<p>Term 5 Key Focus/Topic(s)</p> <p>Lever Toy</p> <ul style="list-style-type: none"> • Create a toy using levers and linkages. • Understand the importance of ergonomics and anthropometrics in design. • Design development - create variations of creative designs using drawing and modelling techniques. • Know a variety of materials and their properties. • Develop making 	<p>Term 6 Key Focus/Topic(s)</p> <ul style="list-style-type: none"> • Lever toy • (see Term 5)
<p>Term 4 Assessment Opportunities:</p> <ul style="list-style-type: none"> • Phone holder CAD • Finished practical egg holder grade. • Weekly Google Classroom quizzes and tests 	<p>Term 5 Assessment Opportunities:</p> <ul style="list-style-type: none"> • Card Model • Weekly Google Classroom quizzes and tests. 	<p>Term 6 Assessment Opportunities:</p> <ul style="list-style-type: none"> • Finished Lever Toy • Weekly Google Classroom quizzes and tests.

Long-term overview for Year 7 DT

Rationale:

The aim for Year 7 is initially to get them comfortable and safe in the workshop environment, then each project builds skills that are used for GCSE. They cover polymers, wood, metals and card across the year – all relevant to GCSE. These projects cover practical skills, computer aided design and subject specific knowledge which is tested at the end of every project. Homework research and quizzes reinforce content from the lesson and are all linked to the GCSE specification.

Evaluation:

Achievement can be judged through review of test and examination scores, gap analysis, comparison of topic tests, quality assurance processes etc. Google Classroom quizzes are used to get students used to exam board specifications. Google Classroom is used to track students' grades – this then is exported and used for all audits and data analysis. Feedback for task and how to be platinum is organised on Google Classroom. At the end of each year we discuss with students what they enjoyed and EBI (Even Better If). All resources are shared on Google Classroom. Everyone in the department can see each other's grades for comparison and reflection.