

Subject: D&T

Year Group: Year 7

Students in Year 7 complete a range of project. These are set in different orders from group to group to provide access to shared specialist equipment

During this term, students will use a program called 2D Design a student version can be downloaded free from here for Windows use.

[https://eggbuckland.sharepoint.com/:u:/g/Technology/EfqYOIKo9a5Ar\\_PdpLhGSMoBQJNZAQGP3et-tpBmMFxgRA?e=ddm2F5](https://eggbuckland.sharepoint.com/:u:/g/Technology/EfqYOIKo9a5Ar_PdpLhGSMoBQJNZAQGP3et-tpBmMFxgRA?e=ddm2F5)

Having downloaded it, please use these instructions to install the licence file. <https://eggbuckland.sharepoint.com/:w:/g/Technology/EaWHw-rU2MZCoRj3NKWMx8sBiLroJC8KqQ8bg7XYQd6eww?e=rGalur>

This should give access to all functionality apart from printing. Work can be saved and printed in College or recorded via a screen shot and printed from Word or similar.

Mini project and week	Subject Topic	NC strand See end	Key Learning points/big questions	Independent/Home learning	Linked Assessment	Resources
<b>Ball Hurler 1</b>	Introduction to a working drawing Use of equipment	M T/K	Understanding a working drawing Marking out Units of measurement Accuracy Use of try square, bench hook, tenon saw, g cramp Wood Safe working	Draw and label the tools used in the lesson. Explain what each is used for Identify units of measurement used on product specifications. Understand the reason(s) why different ones are used	Low stakes test End of project assessment	Ball Hurler Resources <a href="https://eggbuckland.sharepoint.com/:f:/g/Technology/Er3mbXAJd7FPn_syKz2cakBg53WiERQ9ZZYfvtCFfS-g?e=LJHGDU">https://eggbuckland.sharepoint.com/:f:/g/Technology/Er3mbXAJd7FPn_syKz2cakBg53WiERQ9ZZYfvtCFfS-g?e=LJHGDU</a>
<b>Ball Hurler 2</b>	Marking out and cutting joints	M T/K	Understanding a working drawing Marking out Units of measurement Accuracy	Investigate and explain the process of turning trees into a usable material	Low stakes test End of project assessment	<a href="https://youtu.be/vUPJPfg4wM">https://youtu.be/vUPJPfg4wM</a>

			Use of try square, bench hook, tenon saw, g cramp Safe working Understanding the need for jointing timber			
<b>Ball Hurler 3</b>	Safe use of a pillar drill Use of PVA	M T/K	Where does wood come from? Jointing Use of the pillar drill Adhesives Safety	Investigate methods of jointing timber used at home. Draw and explain 2 examples	Low stakes test End of project assessment	
<b>Ball Hurler 4</b>	Safe use of the sander	M T/K	Use of the sander Project assembly Dowel rod Adhesives	Identify 3 potential hazards associated with using a sander. Explain the hazard and how it could be reduced.	Low stakes test End of project assessment	
<b>Ball Hurler 5</b>	Finishing techniques Joining using screws	M T/K	Accuracy Quality of finish Use of screws	Identify 1 permanent and 1 non-permanent method of parts used at home. Draw and label the items	Low stakes test End of project assessment	
<b>Ball Hurler 6</b>	Reflecting on work complete and personal evaluation	E	Evaluating and testing		Low stakes test End of project assessment	
<b>Mini project and week</b>	<b>Subject Topic</b>	<b>NC strand See end</b>	<b>Key Learning points/big questions</b>	<b>Independent/Home learning</b>	<b>Linked Assessment</b>	<b>Resources</b>

<b>Maze 1</b>	Design maze Cut maze on CNC router	D M T/K	What is CNC What is CAD Using 2D design to draw a maze game File management Email	Investigate and record use of industrial CNC machinery	Low stakes test End of project assessment	Maze game resources <a href="https://eggbugclan.d.sharepoint.com/:f:/g/Technology/EsVazO8vkcplNI5DVxU0OJmABLRuYrLUKymQ_Jwu8FTehCA?e=Sqq0b2">https://eggbugclan.d.sharepoint.com/:f:/g/Technology/EsVazO8vkcplNI5DVxU0OJmABLRuYrLUKymQ_Jwu8FTehCA?e=Sqq0b2</a>  <a href="https://youtu.be/QhAXbA2lmnE">https://youtu.be/QhAXbA2lmnE</a>
<b>Maze 2</b>	Clean up maze inside File and polish acrylic Apply colour	M T/K	Use of files, W&D, buffing m/c. Application of colour	To explain advantages in using CAD over drawing by hand	Low stakes test End of project assessment	
<b>Maze 3</b>	Fitting top Evaluation	M E	Micro drills to pilot holes Screw drivers to assemble Evaluate	Design a package for your maze game	Low stakes test End of project assessment	
<b>Mini project and week</b>	<b>Subject Topic</b>	<b>NC strand</b> See end	<b>Key Learning points/big questions</b>	<b>Independent/Home learning</b>	<b>Linked Assessment</b>	<b>Resources</b>
<b>Key fob and packaging 1</b>	Design Brief Monochrome design	D T/K	What is a Design Brief? What is a logo? What makes a good logo? Design a range of ideas for a key ring	Investigate and find an example of a logo. Print / copy and explain why it is effective	Low stakes test End of project assessment	Key fob resources <a href="https://eggbugclan.d.sharepoint.com/:f:/g/Technology/EkJk9XM9LedEvdVvQT5PGjkBF_YZk6ihhczZGo0acqpx5w?e=hGbapP">https://eggbugclan.d.sharepoint.com/:f:/g/Technology/EkJk9XM9LedEvdVvQT5PGjkBF_YZk6ihhczZGo0acqpx5w?e=hGbapP</a>
<b>Key fob and packaging 2</b>	Use of 2D Design to draw monochrome key fob	D T/K	Setting up page Line setup Saving and emailing	To explain the definition of monochrome design	Low stakes test End of project assessment	

<b>Key fob and packaging 3</b>	Laser cutting design Step by step account of manufacture Fit ring	T/K	Continuation of above Joining acrylic – Tesnol Cement	Identify ways plastic items are put together / assembled. Draw / photograph and explain	Low stakes test End of project assessment	<a href="#">Focus on Plastics - Focus eLearning by Focus Educational Software Ltd.</a>  <a href="https://youtu.be/hukafUxglmE">https://youtu.be/hukafUxglmE</a>  <a href="https://youtu.be/cYOC8_jJcII">https://youtu.be/cYOC8_jJcII</a>
<b>Key fob and packaging 4</b>	Use of 2D Design to design packaging	T/K D	What is the purpose of packaging? Sustainability issues with packaging Designing packaging Use of vac former	Investigate the process of recycling plastics	Low stakes test End of project assessment	
<b>Key fob and packaging 5</b>	Packaging End of unit test	T/K	Recycling Assessment of progress		Low stakes test End of project assessment	

In the event of a full or partial closure of the year group, it will not be possible to teach all aspects of this course. Flexibility will need to be exercised by teachers and some lessons will be moved around.

NC Strand Key:

D Design

M Make

E Evaluate

TK Technical Knowledge