

Y7 Product Design. Long term Plan. 2021 to 2022														
Term 1	Lesson	Key ring project	NC link	Homework	Term 2	Lesson	Key ring and torch	NC link	Homework	Term 3	Lesson	Torch	NC link	Homework
Week 1 + 2	1	Workshop safety. Review of safe use of the workshop space. Basic safety rules.		H+S poster	Week 1 + 2	8	Safe use of the pillar drill. Drilling the acrylic piece. Filing and smoothing. Use of files and wet & dry to smooth and finish the aluminium pieces.			Week 1 + 2	14	Practical session 1. Assemble the pieces for the torch, mark out the ergonomic shape. Begin cutting and shaping with coping saws.		production plan
Week 3 + 4	2	Baseline test (1/2 hour) Project introduction and specification			Week 3 + 4	9	Adhesives. Types and uses. Final assembly and finishing of the key rings. Complete final drawings.		Oblique drawing task	Week 3 + 4	15	Cutting and shaping. Complete cutting the torch bodies. Shape with files. Drill clip holes using the pillar drill. Safety review/recap.		
Week 5 + 6	3	Research based lesson. What is research, why do it? Personal profile and evaluation of existing examples of key rings.		properties of materials research task	Week 5 + 6	10	Peer reviews and final evaluations of the key rings. Final GPF on the practical			Week 5 + 6	16	Shaping and smoothing. Use glass paper and wet & dry to smooth the edges. Drill the 15mm switch hole through all three pieces.		progress review
Week 7 + 8	4	Drawing and annotation of ideas for the design of the key ring			1/2 Term					1/2 Term				
1/2 Term					Week 7 + 8	11	Project intro and ergonomics. Investigate ergonomic products.			Week 7 + 8	17	Splitting and finishing. Split the pieces and drill the 20mm hole in the centre piece. Smooth with fine wet and dry. Cur LED leg grooves.		
Week 9 + 10	5	Use of the coping saw. Demonstration of shaping acrylic using coping saws and files. Basic cutting and shaping of the acrylic piece on the key ring. GPF on ideas.		Tools sheet. Types of saws	Week 9 + 10	12	electronic components. Identify a range of components. Build simple electronic circuits.		research existing examples	Week 9 + 10	18	Final assembly and testing. Fit batteries and LEDs. Cut and fit foam button pads. Test and review progress.		Final drawing
Week 11 + 12	6	Filing and smoothing. Use of files, glass paper and wet & dry to smooth and finish the acrylic pieces.			Week 11 + 12	13	Ideas. Drawn and evaluate a range of ideas for the shape of an ergonomic torch.			Week 11 + 12	19	Evaluation and end of year review. Complete and evaluate torches. Review skills learned this year. Test/quiz.		
Week 13 + 14	7	Shaping aluminium. Use of the junior hack saws and files to cut and shape the aluminium pieces for the key ring. GPF on the practical		Progress evaluation										