

	KNOWLEDGE	SKILLS
YEAR 7	<p>Key Fob Design Use research and exploration the key fob, to identify and understand user needs. Identify and solve their own design problems and understand how to reformulate problems given to them. Develop specifications to inform the design of innovative, functional, appealing key fobs that respond to needs in a variety of situations. Use a variety of approaches, to generate creative ideas and avoid stereotypical responses. Develop and communicate design ideas using annotated sketches. Modelling design concepts to understand success criteria.</p> <p>Make Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials and components, taking into account their properties.</p> <p>Evaluate The use and environmental impact of plastics. Investigate new and emerging technologies. Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists</p>	<ol style="list-style-type: none"> 1. I have set targets/specification to achieve with my practical 2. I have created a recognisable design 3. I have created a suitable shape 4. I have created a relevant shape for user 5. I have used the material economically 6. I know about the impact of the materials I am using 7. I can transfer an accurate shape onto material 8. I can cut allowing space for if I go wrong (tolerances) 9. I can cut across the edge (90°s) 10. I can use the vice correctly 11. I can use coping saw correctly 12. I can correct problems independently 13. I can use the file effectively 14. I can use the emery paper 15. I have made independent choices 16. I have used quality control tests 17. I can always work safely 18. I can use the buffer safely and successfully 19. I can use the drill safely and accurately 20. I know health and safety rules 21. I can use 2D design independently 22. I can use 2D design creatively and accurately 23. I can test and modify my design 24. I can use laser cutter effectively, safely and independently 25. I have tested my product and it works 26., I have kept an accurate diary of the manufacturing process 27. I have judged my final key fob against my original targets

	KNOWLEDGE	SKILLS
YEAR 8	<p>Architecture - Formbyville</p> <p>Design Use research and exploration to understand architecture and interior planning. To investigate a town plan, to identify and allocated the buildings needed. Consider the function of building and the lay out and plan of the interior. Identify and solve their own design problems and understand how to reformulate problems given to them. Develop specification to inform the design of innovative and functional building. Use a variety of approaches, to generate creative ideas and avoid stereotypical responses. Develop and communicate design ideas using annotated sketches, detailed plans, 2D and 3D CAD software. Also including scale and mathematical based working drawings. Modelling, oral and digital presentations and computer based tools.</p> <p>Make Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials always taking into account their properties.</p> <p>Evaluate Analyse the work of past and present professionals and others to develop and broaden their understanding Investigate new and emerging technologies. Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists.</p>	<ol style="list-style-type: none"> 1. I can research and identify information to develop my thinking 2. I can set targets to achieve - specification 3. I can design for a suitable for function 4. I can design for a suitable for user 5. I can investigate designers and use this information to influence my ideas 6. I can develop alternative proposals 7. I can evaluate my own work to develop my ideas further 8. I can draw accurately to scale 9. I can use 2D design with confidence and precision 10. I can use different drawing skills to communicate my ideas 11. I can use CAD both to sketch and produce final ideas 12. I can model in CAD 13. I can understand, work with and convert measurements and scale 14. I can use CAD software confidently and independently 15. I can test and modify my own design as needed 16. I have kept an informative and well-presented diary of this whole process 17. I have evaluated my final design against the original specification 18. I can formally present my final idea to the class 19. I have contributed to Formby-Ville with my unique and creative building design

	KNOWLEDGE	SKILLS
YEAR 8	<p>Pewter casting – Handy spanner</p> <p>Design Understand the problem, identify the opportunities and constraints of the task and develop a specification Use research and exploration to understand materials and forming methods. To investigate a real product and audit the sizes, materials and forming methods. To develop an accurate prototype in CAD Identify and solve their own design problems and understand how to reformulate problems given to them. To plan the manufacture Develop and communicate design ideas using annotated sketches, detailed plans, 2D and 3D CAD software. Including scale and mathematical based working drawings. Modelling, oral and digital presentations and computer based tools.</p> <p>Make Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials always taking into account their properties.</p> <p>Evaluate Analyse the work of past and present professionals and others to develop and broaden their understanding Investigate new and emerging technologies. Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups. Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists.</p>	<ol style="list-style-type: none"> 1. I can understand the task and identify the opportunities and constraints of the task. 2. I can research and identify information to develop my thinking 3. I understand and appreciate the materials I am using. 4. I can set targets to achieve – specification 5. I can design for a suitable for function 6. I can design with precision and accuracy 7. I can develop alternative proposals 8. I can evaluate my own work to develop my ideas further 9. I can draw accurately to scale 10. I can use 2D design with confidence and precision 11. I can use the laser cutter independently and with confidence 12. I can use all equipment safely 13. I can select and use the correct tools with accuracy and precision 14. I can test my solution 15. I can evaluate success against function and the expected specification 16. I can redesign and develop my solution further

