

Progression in Design and Technology Skills – Hawthorn

| EYFS | | | | | | |
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| Expressive Arts and Design | Creating with materials | | | | | |
| | Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function T1,2,3,4,5,6 Share their creations, explaining the process they have used; T1,2,3,4,5,6 Make use of props and materials when role playing characters in narratives and stories T1,2,3,4,5,6 | | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Design, make, evaluate, improve | 1a) Use pictures and words to plan. 2a 6a 2b 4b 6b 1b) Explain what they want to make and its purpose. 2a 6a 2b 3b 4b 6b 1c) Use tools to cut, shape, join and finish. 2a 3/4a 2b 4b 1d) Evaluate their product, giving explanations 2a 2b 4b 6b 1e) Begin to use software to represent 2D design. 2a 4b | | 3a) Investigate existing products, analyse how they are made. 4a 2b 5/6b 3b) Plan a sequence of actions to make product. 4a 2b 4b 5/6b 3c) Develop prototypes. 4a 2b 5/6b 3d) Generate annotated plans and sketches 4a 2b 4b 5/6b CAD where appropriate – PM to design a sandwich box?? 5b 3e) Evaluate and refine product. 1/2a 4a 2b 4b 5/6b | | 5a) Research to design product; surveys and interviews 2a, 4a, 5a 2b 6b 5b) Use prototypes, cross sectional diagrams, exploded diagrams and CAD to represent designs 2a, 4a, 5a 2b 6b 5c) Consider other's views when evaluating design. 1a, 2a, 4a, 2b 6b 5d) Justify decisions around materials and methods 1a, 2a, 2b 5b 6b 5e) Suggest how improvements can be made. 1a, 2a, 4a, 5a, 2b 6b | |
| Cooking and Nutrition | 1f) Understand where food comes from. 4b 1g) Group familiar foods 1h) Cut ingredients safely 4b 1i) Prepare cold dishes safely, hygienically. 4b | 2f) Group food into 5 food groups. 2g) Cut, grate, peel safely. 4b 2h) Measure and weigh using cups, electronic scales. 2i) Prepare cold dishes safely, hygienically 4b | 3f) Know what a healthy diet is. 1/2a 4b 5b 3g) Measure and weigh appropriately 1/2a 4b 3h) Follow a recipe 1/2a 4b 3i) Cut accurately and safely. 1/2a 4b 5b | 4g) Measure accurately using scales 1/2a 4b 4h) Follow a recipe by preparing ingredients hygienically and using appropriate utensils. 1/2a 4b 5b | 5f) Assemble or cook ingredients controlling temp of oven or hob. 5a 3b 5b 5g) Measure accurately with different equipment. 5a 5b 5h) Create recipes. 5a 5b 5i) Understand importance of correct storage and handling of ingredients. 5a 5b | 6f) Combine ingredients appropriately. 5a 5b 6g) Measure ingredients to the nearest gram and ml. 5a 5b 6h) Calculate ratios to scale a recipe up or down. 5a 5b 6i) Understand seasonality and how a variety of ingredients are grown. 5a 5b 6j) Create and refine recipes. 5a 5b |
| Construction, mechanics and electronics | 1k) Mark materials to be cut using template. 2a 2b 1l) Attach wheels using chassis. 6b 1m) With support cut using a hacksaw 6b 1n) Make vehicles with construction kits. 6b | 2l) Use range of materials to create models with wheels and axles 6b 2m) Practise drilling, screwing, nailing and gluing to strengthen products. 3/4a | 3n) Strengthen frames using diagonal struts 4a 3o) Begin to use gears, pulleys 4a and levers. 6b 3p) Create series circuits. - science 2b | 4n) Investigate how to make structures more stable. 4a 5/6b 4o) Understand and use gears, pulleys, 4a levers and gears. 6b | 5l) Use a glue gun under supervision. 2a, 4a, 5a, 6b 5m) Use a hand drill to drill loose and tight fit holes. 4a 6b 5n) Join materials using appropriate methods 1a, 2a, 5a, 2b 6b 5p) Control a model using ICT control model. 4a 6b | 6m) Cut wood accurately to 1mm 5a 6n) Build frameworks using a range of materials. 1a, 2a, 5a, 2b 6b 6o) Use a cam to make an up and down mechanism. 2a 6p) Create circuits with a number of components 4a, 6b (LEDs, resistors and transistors) |

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| Materials | <p>1q) Fold, tear or cut paper or card. 2a 3/4a 6a 2b 6b</p> <p>1r) Investigate strengthening sheet materials. 6a</p> <p>1s) Roll paper to make tubes. 3/4a</p> <p>1t) Use a range of joining techniques; gluing, taping 3/4a 6a 2b 6b</p> <p>1u) Measure and mark out lines. 2b 6b</p> | <p>2q) Cutting and shaping techniques; tear, fold, cut and curl. 2a 3/4a 6a 2b 6b</p> <p>2r) Cut safely using tools provided. 2a 3/4a 2b 6b</p> <p>2t) Joining techniques ; gluing, taping creating hinges 2a 3/4a 6a 2b 6b</p> <p>2v) Use simple pop ups. 3/4a</p> | <p>3r) Cut accurately and safely using correct tools. 4a6b</p> <p>3t) Cut slots. 1/2a 6b</p> <p>3u) Measure and mark out accurately 4a 5/6b</p> | <p>4s) Create nets. 1/2a 4a 5b</p> <p>4t) Cut slots and internal shapes.6b</p> <p>4u) Measure and mark out to nearest mm 4a 5/6b</p> <p>4v) Use and explore complex pop ups. 6b</p> | <p>5r) Show an understanding of the qualities of materials; choose tools to cut and shape. 2a, 4a, 5a 2b, 6b</p> <p>5t) Cut materials with precision, refine the finish. 1a, 2a, 4a, 5a 2b, 6b</p> |
| Take inspiration from design throughout history | <p>1w) Explore objects and designs to identify likes and dislikes. 2a 6a 2b 4b 6b</p> <p>1x) Explore how products have been created. 6a 2b 4b 6b</p> | <p>3x) Disassemble products to understand how they work. 4a 5/6b</p> <p>3y) Improve on existing designs, giving reasons for choices. 4a 4b 5/6b</p> <p>3z) Identify some of the great designers in different areas of study to generate ideas. 4a 6b</p> | <p>5z) Use knowledge of inventors, designers, engineers, chefs and manufacturers to create own innovative designs. 2a, 4a, 5a 5b, 6b</p> | | |