

Design and Technology progression overview

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|------------------|---|---|---|--------|--------|--------|
| Designing | <p>Work confidently within a range of contexts (story-based, local community, wider environment)</p> <p>Generate and develop ideas for themselves and others based on a design criteria. Model ideas by exploring materials, components and construction kits and by making templates and mock-ups.</p> <p>State what they are designing and making. Say whether their product is for themselves or other users and what their product is for. Say how their product will work. Say how they will make their product appealing for the intended users.</p> <p>Use information and communication technology, where appropriate, to develop or communicate their ideas.</p> | <p>Work confidently within a range of contexts (home, school, industry)</p> <p>Gather information about the needs and wants of particular individuals and groups. Use a given design criteria and use these to inform their ideas. Share and clarify ideas through discussion. Model their ideas using prototypes and pattern pieces.</p> <p>Describe the purpose of their products. Indicate design features of their products that will appeal to intended users. Explain how particular parts of their products work. Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas.</p> <p>Use computer-aided design to develop and communicate their ideas, where appropriate.</p> | <p>Work confidently within a range of contexts (home, school, industry, wider environment)</p> <p>Carry out research, using surveys, interviews, questionnaires and web-based resources. Identify the needs, wants, preferences and values of particular individuals and groups. Develop their own design criteria and use these to inform the design of innovative, functional, appealing products that are fit for purpose. Share and clarify ideas through discussion. Model their ideas using prototypes and pattern pieces.</p> <p>Indicate design features of their products that will appeal to intended users. Explain how particular parts of their products work. Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas.</p> <p>Use computer-aided design to develop and communicate their ideas.</p> | | | |

| | | | | | | |
|-------------------|--|--|---|---|---|---|
| Making | Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. | | Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. | | Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. | |
| | Select from and use a wide range of materials and components including construction materials, textiles and ingredients, according to their characteristics. | | Select from and use a wide range of materials and components including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. | | Select from and use a wide range of materials and components including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. | |
| Evaluating | Explore and evaluate a range of existing products. Evaluate their ideas and products against a design criteria. | | Investigate and analyse a range of existing products. Evaluate their ideas and products against the design criteria and consider the views of others to improve their work. Understand how key events and individuals in design technology have helped shape the world. | | Investigate and analyse a range of existing products. Evaluate their ideas and products against the design criteria and consider the views of others to improve their work. Understand how key events and individuals in design technology have helped shape the world. | |
| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Year 1 | | Sliders for life cycles to teach Reception children. Side to side movement. | | Textiles: Map making for community. Templates and joining techniques | Sliders on turrets and levers on drawbridges. Up and down movement. | Freestanding structures. Join materials with tape and cut and glue tabs. Explore how they can be made stronger, stiffer and stable. |
| Year 2 | | | Preparing fruit and vegetables for a healthy family snack Use peeling, cutting, slicing, grating, squeezing techniques. Understand where the food comes from. Wheels and axels on vehicles. | | Textiles: Hand puppets for Reception children. Templates and joining techniques. | |

| | | | | | | |
|--------|---|--|---|--|--|---|
| Year 3 | Blackberry crumble making for family treat. Understand seasonality and know where and how a variety of ingredients are grown. Use cutting using bridge and claw techniques. | | | Levers and linkages on Shadufs to move water. | | Textiles: Cloth books for younger family members. Joining techniques: back and running stitch, blanket stitch or over sew stitch. |
| Year 4 | | Electrical systems: Simple circuits and switches. Shell structures: Lanterns using nets of 3D shapes. | | Shell structures: Easter baskets using nets of 3D shapes. | | |
| Year 5 | Frame structures to hold wells: Joining thin sectioned pieces of wood and making joints. Levers and pulleys in Wells to raise water. | | | Textiles: running, back, lazy-daisy and chain stitches for Space scenes combining different fabrics. | | Bread making: Spanish inspired for family. Know where and how a variety of ingredients are grown and processed. Use mixing and rubbing to combine ingredients and kneading to make dough. |
| Year 6 | Electrical systems: Complex circuits and switches for lighthouses. | | Construction: Frame structures for Anderson shelters. | Tool use: Miniature Trojan horses | | Textiles: Soft toys for younger siblings or EYFS children to combine different fabrics. |