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| **Curriculum and skills coverage for Design and Technology** | | | | | | | | |
|  | **Foundation Stage 1** | **Foundation stage 2** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Developing, planning and communicating ideas.** | **N1-** To understand that equipment and tools have to be used safely. | **R1**- To show understanding of the need for safety when tackling new challenges and consider and manage some risks.  **R2-** To show understanding of how to transport and store equipment safely. | **1.1-** Design purposeful, functional, appealing products for themselves and others based on a design criteria.  **1.2-**Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups. | **2.1-** Design purposeful, functional, appealing products for themselves and others based on a design criteria.  **2.2-** Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT. | **3.1-** Use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose and aimed at particular individuals or groups.  **3.2-** Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. | **4.1-** Use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose and aimed at particular individuals or groups  **4.2-** Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. | **5.1-** Use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose and aimed at particular individuals or groups  **5.2-** Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | **6.1-** Use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose and aimed at particular individuals or groups  **6.2-** Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design |
| **Working with tools, equipment, materials and components to make quality products** | **N2-** To use one-handed tools and equipment e.g. making snips in paper with scissors.  **N3-** To show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movement or new images.  **N4-** To capture experiences and responses with a range of media.  **N5**- To use various construction materials.  **N6**- To show an interest in technological toys with knobs, pulleys or real objects  **N7-**  Begin to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.  **N8-**  Joins construction pieces together to build and balance | **R3**- To use simple tools to effect changes to materials.  **R4-** To handle tools, objects, construction and malleable materials safely and with increasing control.  **R5-** To practise some appropriate safety measures without direct supervision.  **R6-** To experiment to create different textures.  **R7-** To understand different media can be combined to create new effects.  **R8-** To manipulate materials to achieve a planned effect.  **R9-** To construct with a purpose in mind, using a variety of resources.  **R10-** To use simple tools and techniques competently and appropriately.  **R11-** To select appropriate resources and adapt work where necessary.  **R12-** To select tools and techniques needed to shape, assemble and join materials they are using.  **R13-** To create simple representation of events, people and objects.  **R14-** To choose particular colours for a purpose.  **R15-** To handle equipment and tools effectively.  **R16-** To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. | **1.3-** Select from and use a range of tools and equipment to perform tasks (for example cutting, shaping, joining and finishing).  **1.4-** Select from and use a wide range of materials and components including construction materials, textiles and ingredients according to their characteristic.  **1.5-** Build structures exploring how they can be made stronger, stiffer and more stable.  **1.6-** Explore and use mechanisms for example levers, sliders, wheels and axles in their products. | **2.3-** Select and use a range of tools and equipment to perform tasks (for example cutting, shaping, joining and finishing).  **2.4-** Select from and use a wide range of materials and components including construction materials, textiles and ingredients according to their characteristic.  **2.5-** Build structures exploring how they can be made stronger, stiffer and more stable. | **3.3-** Select and use a range of tools and equipment to perform tasks (for example cutting, shaping, joining and finishing) accurately.  **3.4-** Select from and use a wider range of materials and components including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities.  **3.5-** Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages. | **4.3-** Select and use a range of tools and equipment to perform tasks (for example cutting, shaping, joining and finishing) accurately.  **4.4-** Select from and use a wider range of materials and components including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities.  **4.5-** Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.  **4.6-** Understand and use electrical systems in their products for example series circuits incorporating switches, bulbs, buzzers and motors. | **5.3-** Select and use a range of tools and equipment to perform tasks (for example cutting, shaping, joining and finishing) accurately.  **5.4-** Select from and use a wider range of materials and components including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities.  **5.5-** Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | **6.3-** Select and use a range of tools and equipment to perform tasks (for example cutting, shaping, joining and finishing) accurately.  **6.4-**Select from and use a wider range of materials and components including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities.  **6.5-** Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.  **6.6-** Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages  **6.7-** Understand and use electrical systems in their products for example series circuits incorporating switches, bulbs, buzzers and motors  **6.8-** Apply their understanding of computing to program, monitor and control their products. |
| **Evaluating processes and products** | **N9-** To show an interest in technological toys with knobs, pulleys or real objects.  **N10-** To develop preferences for forms of expression.  **N11-** Realises tools can be used for a purpose. | **R17-** To use what they have learnt about media and materials in original ways, thinking about uses and purposes.  **R18-** To represent their own ideas, thoughts and feelings through design and technology. | **1.7-** To explore a range of existing products.  **1.8-** To evaluate their products against a design criteria. | **2.6-** To explore a range of existing products.  **2.7-** To evaluate their products against a design criteria. | **3.6-** Investigate and analyse a range of existing products.  **3.7-** Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | **4.7-** Investigate and analyse a range of existing products.  **4.8-** Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | **5.6-** Investigate and analyse a range of existing products.  **5.7-** Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  **5.8-** Understand how key events and individuals in design and technology have shaped the world. | **6.9-** Investigate and analyse a range of existing products.  **6.10-**Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  **6.11-**Understand how key events and individuals in design and technology have shaped the world. |
| **Food and Nutrition** | **N12**- To use one-handed tools and equipment.  **N13-** To understand that equipment and tools have to be used safely. | **R19-** To use simple tools to effect changes.  **R20-** To handle tools safely and with increasing control.  **R21-** To show understanding of the need for safety when tackling new challenges and consider and manage some risks.  **R22-** To show understanding of how to transport and store equipment safely.  **R23-** To practice some appropriate safety measures without direct supervision.  **R24-** To use simple tools and techniques competently and appropriately. | **1.9-** Use the basic principles of a healthy and varied diet to prepare dishes.  **1.10-** To understand where food comes from. | **2.8-** Use the basic principles of a healthy and varied diet to prepare dishes.  **2.9-** To understand where food comes from | **3.8-** Understand and apply the principles of a healthy and varied diet.  **3.9-** Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | **4.9-**Understand and apply the principles of a healthy and varied diet.  **4.10-** Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.  **4.11-**Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. | **5.9-**Understand and apply the principles of a healthy and varied diet.  **5.10-** Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | **6.12-** Understand and apply the principles of a healthy and varied diet.  **6.13-** Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.  **6.14-** Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed |