

## Trimley St Mary – Design Technology – Progression of Knowledge and Skills



#### ELG - EYFS

# Expressive arts and design / Exploring and using media and materials

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Manipulate materials to achieve a planned effect.
- Construct with a purpose in mind, using a variety of resources.
- Use simple tools and techniques competently and appropriately.
- Select appropriate resources and adapts work where necessary.
- Select tools and techniques needed to shape, assemble and join materials they are using.

#### Milestone 1 - Year 1 & 2

By the end of Year I pupils should have a basic grasp of all of this content. By the end of Year 2 pupils should have an advancing understanding of this content, whilst some will have a deep understanding.

#### Master practical skills

- Cut, peel or grate ingredients safely and hygienically.
- Measure or weigh using measuring cups or electronic scales.
- · Assemble or cook ingredients.
- Cut materials safely using tools provided.
- Measure and mark out to the nearest centimetre.
- Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).
- Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).
- Shape textiles using templates.
- · Join textiles using running stitch.
- Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).
- Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).
- Model designs using software.
- Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.
- Create products using levers, wheels and winding mechanisms.

#### Milestone 2 - Year 3 & 4

By the end of Year 3, pupils should have a basic grasp of all of this content. By the end of Year 4 pupils should have an advancing understanding of this content, whilst same will have a deep understanding.

### Master practical skills

- Prepare ingredients hygienically using appropriate utensils.
- Measure ingredients to the nearest gram accurately.
- Follow a recipe.
- Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).
- Cut materials accurately and safely by selecting appropriate tools.
- Measure and mark out to the nearest millimetre.
- Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).
- Select appropriate joining techniques.
- $\bullet$  Understand the need for a seam allowance.
- Join textiles with appropriate stitching.
- Select the most appropriate techniques to decorate textiles.
- Create series and parallel circuits.
- Control and manitor models using software designed for this purpose.
- Choose suitable techniques to construct products or to repair items.
- Strengthen materials using suitable techniques. Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).

#### Milestone 3 - Year 5 & 6

By the end of Year 5, pupils should have a basic grasp of all of this content. By the end of Year 6 pupils should have an advancing understanding of this content, whilst some will have a deep understanding.

### Master practical skills

Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).

- Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.
- Demonstrate a range of baking and cooking techniques.
- Create and refine recipes, including ingredients, methods, cooking times and temperatures.
- Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).
- Create objects (such as a cushion) that employ a seam allowance.
- Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).
- Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).

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