

### DT Curriculum Overview

#### EYFS

Reception
Develop their small motor skills so that they can use a range of tools, including scissors and a glue gun, competently, safely and confidently.
Explore, use and refine a variety of artistic effects to express their ideas and feelings.
Return to and build on their previous learning, refining ideas and developing their ability to represent them.
Create collaboratively, sharing ideas, resources and skills.
Look at design of rollercoaster and marble runs. Investigate ramps and different types of ball.
Create buildings and vehicles with junk modelling materials.
Cook bread, biscuits and hot cross buns.

#### Key Stage 1

Year 1	Year 2
<p><b>Mechanisms – sliders and levers</b> Develop, model and communicate their ideas through drawings and mock-ups with card and paper.</p> <p>Explore a range of existing books and everyday products that use simple sliders and levers.</p> <p><b>Structures – freestanding structures</b> Select new and reclaimed materials and construction kits to build their structures</p> <p>Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.</p> <p><b>Food – preparing fruit and vegetables</b> Taste and evaluate a range of fruit and vegetables to determine the intended user’s preferences.</p> <p>Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The Eatwell plate.</p>	<p><b>Mechanisms – wheels and axles</b> Use a range of materials to create models and axles e.g. tubes, dowel, cotton reels.</p> <p>Explore and use wheels, axles and axle holders.</p> <p>Distinguish between fixed and freely moving axles.</p> <p><b>Textiles – templates and joining techniques</b> Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing.</p> <p>Understand how to join fabrics using different techniques e.g., running stitch, glue, over stitch, stapling.</p> <p><b>Food – preparing fruit and vegetables</b> Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely.</p>

## Key Stage 2

Year 3	Year 4	Year 5	Year 6
<p><b>Structures – shell structures</b> Develop ideas through the analysis of existing products and use annotated sketches from different angles and prototypes to model and communicate ideas.</p> <p>Investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used.</p> <p><b>Textiles – 2D shape to 3D product</b> Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern.</p> <p>Understand how a key event/individual has influenced the development of the chosen product and/or fabric.</p> <p><b>Cooking – healthy and varied diet</b> Plan the main stages of a recipe, listing ingredients, utensils and equipment.</p> <p>Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs.</p>	<p><b>Electrical systems – simple circuits and switches</b> Investigate and analyse a range of existing battery-powered products.</p> <p>Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers.</p> <p><b>Mechanical systems – levers and linkages</b> Use annotated sketches, exploded diagrams and prototypes to develop, model and communicate ideas.</p> <p>Investigate and analyse books and, where available, other products with lever and linkage mechanisms.</p> <p><b>Cooking – healthy and varied diet</b> Select and use appropriate utensils and equipment</p>	<p><b>Textiles – combining different fabric shapes (including computer aided design)</b> Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes.</p> <p>Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.</p> <p><b>Mechanical Systems – pulleys or gears</b> Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost.</p> <p>Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.</p> <p><b>Food – celebrating culture and seasonality</b> Understand about seasonality in relation to food products and the source of different food products, with a focus on ethical sourcing from local producers.</p> <p>Understand how key chefs have influenced eating habits to promote varied and healthy diets.</p>	<p><b>Structures – frame structures</b> Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost.</p> <p>Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks.</p> <p><b>Electrical systems – sophisticated and more complex switches and circuits (including programming, monitoring and control)</b> Communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams and cross-sectional drawings</p> <p>Create and modify a computer control program to enable an electrical product to work automatically in response to changes in the environment.</p> <p><b>Food – celebrating culture and seasonality</b> Understand about seasonality in relation to food products and the source of different food products.</p>