

Year 6: DT Medium Term Plan

Autumn	<p><u>International Recipes</u></p> <p>Children will gain an understanding of where food comes from and how it is produced. They will research design a meal based on a world cuisine and seasonality.</p>
Spring	<p><u>Renewable Energy</u></p> <p>Children will research and develop a mechanical prototype for a renewable energy source. They will create a design brief, select their own materials and evaluate their design against the criteria.</p>
Summer	<p><u>Controllable Cars</u></p> <p>Children to design and create electronic car. Research different cars design and different electrical systems on a car. Children to create framework using wood and join together. Create an electric motor.</p>
Knowledge and Skills	<p><u>When designing and making, pupils should be taught to:</u></p> <p>Design:</p> <ul style="list-style-type: none"> • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make:</p> <ul style="list-style-type: none"> • select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • 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 <p>Evaluate:</p> <ul style="list-style-type: none"> • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge:</p> <ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products.