



New Invention Junior School



DT Curriculum Progression

Year 3

- Healthy and varied diet - Making sandwiches (Food)
- Levers and linkages - pop up cards (Mechanical systems)
- Shell structures - paper bags (Structures)

Designing	Making	Evaluating	Technical knowledge	Cooking and nutrition
Design products from a given design brief and criteria that are fit for purpose aimed at a particular user. Use annotated sketches and prototypes to present designs.	Use tools and equipment to perform practical tasks e.g. knowing how to use scissors accurately and how to fold accurately. Choose materials from a given selection for function and appearance.	Analyse some existing products suggesting what is good or bad based on their purpose and user. Write simple evaluations of their products against the design criteria.	Understand how to reinforce and strengthen simple 3D structures. Understand basic levers and linkages and use these within a product.	Assemble ingredients carefully (making healthy sandwiches). Understand the principles of a healthy and varied diet.

All year groups should study at least one key individual or event who has helped to shape the World linked to one of their projects (this may also be covered across the wider curriculum)

Year 4

- Healthy and varied diet - Healthy pizza (Food)
- Simple circuits (linked to electricity in Science) - Night lights (Electrical systems)
- 2D shape to 3D product - purses/money wallets (Textiles)

Designing	Making	Evaluating	Technical knowledge	Cooking and nutrition
<p>Design products from a given design brief aimed at a user - begin to develop own design criteria and collect data to inform designs.</p> <p>Use annotated sketches, prototypes and exploded diagrams to present designs.</p>	<p>Use a wider range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing accurately.</p> <p>Choose materials from a wider selection for their functional properties and aesthetic qualities.</p>	<p>Analyse existing products considering who designed and made the products, where and when they were designed and made and whether products can be recycled or reused.</p> <p>Evaluate their products against the design criteria, beginning to consider the views of others to support their evaluations.</p>	<p>Understand how to reinforce and strengthen simple 3D structures.</p> <p>Understand and use electrical systems in their products e.g. switches, bulbs, etc.</p> <p>Use computing software to programme, monitor and control a product.</p> <p>Understand and use some basic stitches when making a product.</p>	<p>Prepare ingredients hygienically using appropriate utensils (healthy pizzas) and use cooking equipment carefully e.g. rolling pins, knives, etc.</p> <p>Understand and apply the principles of a healthy and varied diet (healthy pizza) and know where and how a variety of ingredients are grown, reared, caught and processed.</p>

All year groups should study at least one key individual or event who has helped to shape the World linked to one of their projects (this may also be covered across the wider curriculum)

Year 5

- Celebrating culture and seasonality - Fruit cheesecakes (Food)
- Pulleys or gears (linked to forces in Science) - moving toys (Mechanical systems)
- Frame structures - mini greenhouses (Structures)

Designing	Making	Evaluating	Technical knowledge	Cooking and nutrition
<p>Research and design products from a given design brief - identify user and develop own design criteria. Collect and present data to inform designs.</p> <p>Use annotated sketches, cross-sectional and exploded diagrams, prototypes as well as computer-aided design to present designs.</p>	<p>Measure and mark out to the nearest cm. Apply appropriate cutting and shaping techniques and select and using appropriate equipment.</p> <p>Choose materials from a wide selection for their functional properties and aesthetic qualities.</p>	<p>Analyse a range of existing products using CAFEQUE.</p> <p>Write detailed evaluations of their products against their design criteria and effectiveness for the intended user.</p> <p>Consider the views of others to suggest how to improve their work.</p>	<p>Apply understanding of how to reinforce and strengthen more complex 3D structures.</p> <p>Use scientific knowledge of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).</p>	<p>Choose ingredients based on seasonality.</p> <p>Prepare ingredients hygienically, selecting and using appropriate utensils and measuring ingredients accurately (fruit cheesecakes).</p> <p>Demonstrate baking techniques and create detailed recipes.</p>

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Year 6

- Celebrating culture and seasonality - Bread (Food)
- Combining different fabric shapes - Advent calendars (Textiles)
- More complex switches and circuits (link to electricity in Science) - alarms (Electrical systems)

Designing	Making	Evaluating	Technical knowledge	Cooking and nutrition
<p>Decide their own design brief & design products for their identified user. Develop own design criteria and collect and present data to inform designs.</p> <p>Use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design to present designs.</p>	<p>Measure and mark out to the nearest mm. Apply appropriate cutting and shaping techniques selecting and using appropriate equipment with precision.</p> <p>Choose materials from a wide selection for their functional properties and aesthetic qualities.</p>	<p>Analyse and investigate a range of existing products using CAFEQUE.</p> <p>Critically evaluate products, writing detailed evaluations against their design criteria and needs of the user, considering the views of others to suggest how to improve their work.</p>	<p>Apply understanding of how to reinforce and strengthen more complex 3D structures.</p> <p>Join textiles with appropriate stitching and select the most appropriate techniques to decorate textiles.</p> <p>Understand and use a wider range of electrical systems in their products e.g. more complex switches.</p>	<p>Prepare ingredients hygienically using appropriate utensils and measure ingredients accurately (making bread).</p> <p>Demonstrate a range of cooking and baking techniques. Create and refine detailed recipes.</p>

All year groups should study at least one key individual or event who has helped to shape the World linked to one of their projects (this may also be covered across the wider curriculum)