

# The Design and Technology Learning Pathway

Onwards to success and triumph...

**UKS2 Evaluate, design, make**

Undertake research to inform design process. This may include surveys and interviews.

- Use prototypes, cross-sectional diagrams, exploded diagrams and CAD software to represent designs.
- Consider the views of others when evaluating their own work.
- Ensure products have a high quality finish, using art skills where appropriate.
- Justify their decisions about materials and methods of construction.
- Make suggestions on how their design/product could be improved.

**Year 6**

**Construction**

Create circuits that employ a number of components (such as LEDs, resistors and transistors).

Cut wood accurately to 1mm.

Build frameworks using a range of materials e.g. wood, card and corrugated plastic.

Use a cam to make an up and down mechanism.

**Cooking and Nutrition**

Combine ingredients appropriately e.g. beating or rubbing.

Measure ingredients to the nearest gram and millilitre and calculate ratios of ingredients to scale up or down from a recipe.

Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

Create and refine recipes, including ingredients,

**LKS2 Evaluate, design, make**

Investigate existing products, including drawing them to analyse and understand how they are made.

- Plan a sequence of actions to make a product.
- Develop more than one design.
- Develop prototypes.
- Generate designs with annotated sketches and computer-aided design (CAD) where appropriate.
- Refine work and techniques as work progresses, continually evaluating the product design.
- Identify strengths and weaknesses of their design ideas.
- Talk about how closely their finished product meets their

**Construction**

Control a model using an ICT control model.

Use a glue gun with close supervision.

Join materials using appropriate methods. Use a hand drill to drill tight and loose fit holes.

**Cooking and Nutrition**

Assemble or cook ingredients, controlling the temperature of the oven or hob if cooking.

Measure accurately using different equipment.

Create recipes, including ingredients, methods, cooking times and temperatures.

Understand the importance of correct storage and handling of ingredients.

**Year 5**

**Year 4**

**Construction**

Create series and parallel circuits.

Investigate how to make structures more stable e.g. by widening the base.

Understand and use mechanical structures in their products e.g. gears, pulleys, levers and gears.

**Cooking and Nutrition**

Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).

**Construction**

Create series circuits.

Strengthen frames using diagonal struts.

Begin to use mechanical systems in their products e.g. gears, pulleys and levers.

**Cooking and Nutrition**

Cut materials accurately and safely by selecting appropriate tools.

Know that a healthy diet is made up from a variety of different food and drink.

Measure and weigh ingredients appropriately.

**Year 3**

**Construction**

Use a range of materials to create models with wheels and axles e.g. tubes, dowel and cotton reels.

Use materials to practise drilling, screwing, nailing and gluing to strengthen products.

**Cooking and Nutrition**

Group foods into the five groups .

Cut, grate or peel ingredients safely.

Prepare simple dishes-safely and hygienically-without using a heat source.

**Year 2**

**Ks 1 Evaluate, design, make**

- Explain what they are making and which materials they are using.
- Design products that have a clear purpose and an intended user.
- Use pictures and words to convey what they want to make.
- Make products, using a range of tools to cut, shape, join and finish.
- Say what they like and don't like about their product and explain why.
- Talk about how closely their finished product meets their design criteria.

**Construction**

Mark out materials to be cut using a template.

Attach wheels to chassis using an axle.

With support cut strip wood/dowel using a hacksaw.

Make vehicles with construction kits which contain free

**Cooking and Nutrition**

Understand where food comes from.

Group familiar food products e.g. fruit and vegetables.

Cut ingredients safely.

Prepare simple dishes-safely and hygienically-without using

**Year 1**

**FS Evaluate, design, make**

Be excited about what they have made

**Construction**

Constructs with purpose in mind, using a variety of resources.

Uses simple tools and techniques competently and appropriately.

Selects tools and techniques needed to shape, assemble and join materials they are using.

Talk about what they want to make.

**Cooking and Nutrition**

Children know the importance for good health of a healthy diet, and talk about ways to keep healthy.

Eats a healthy range of foodstuffs and understands need for variety in food.

**Year FS**