



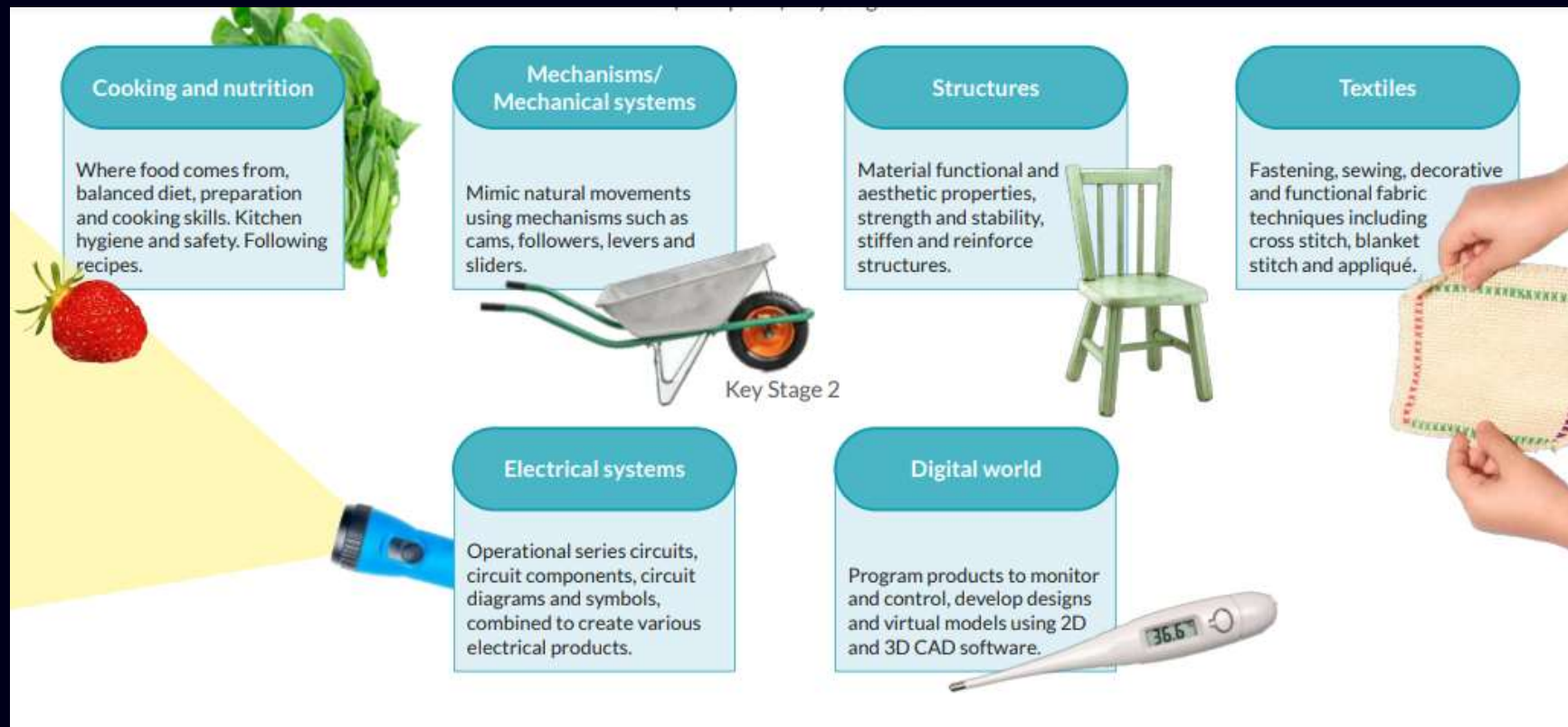
# Design and Technology Curriculum

Compassion, Self-Awareness, Aspiration, Commitment, Resilience and  
Integrity

## Design and Technology Curriculum:

There are knowledge and skills developed in the DT curriculum Scheme of Work and are covered in the following areas:

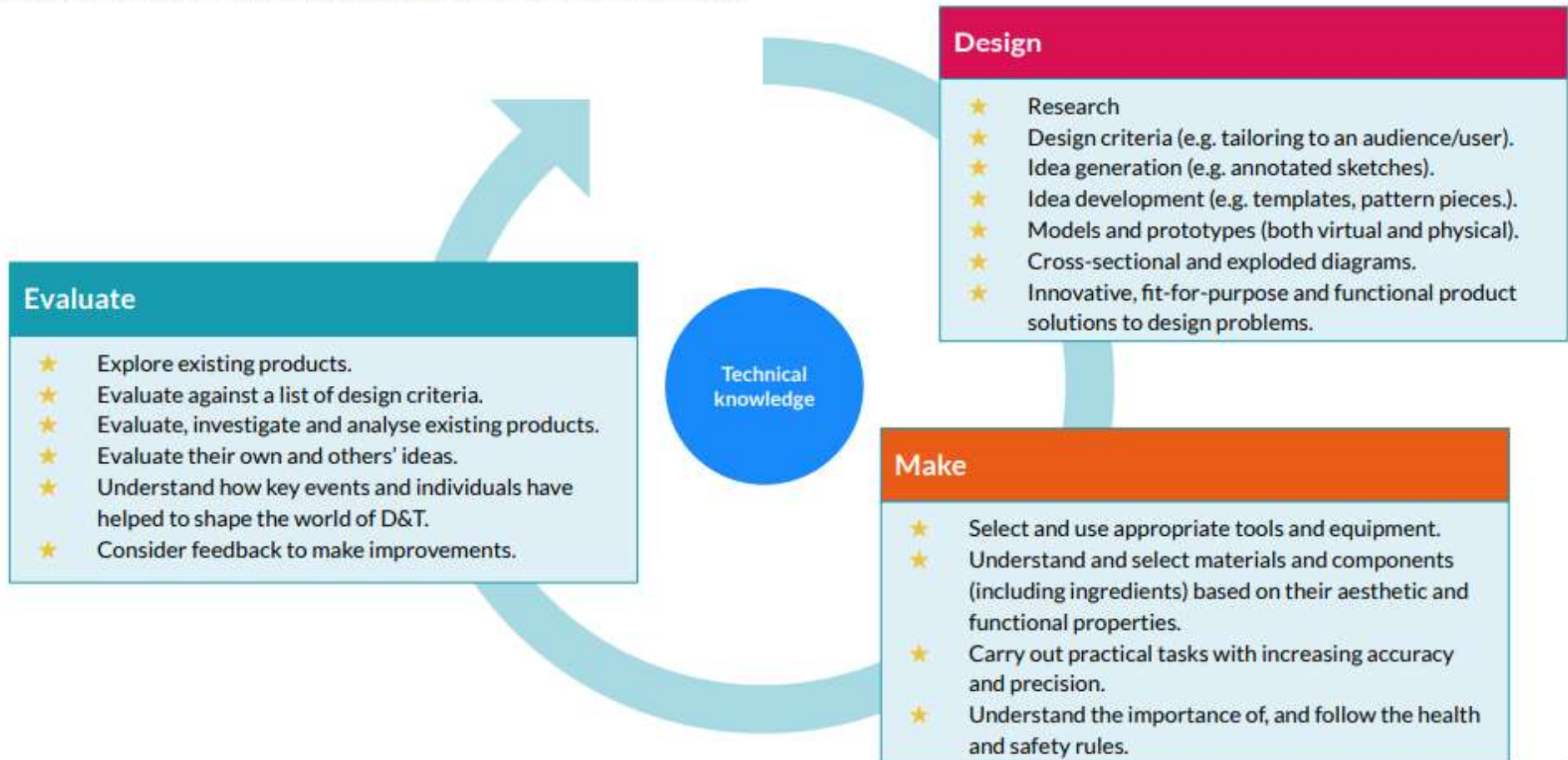
- Cooking and Nutrition
- Textiles
- Structures
- Mechanical Systems
- Electrical Systems
- Digital World



Within each key area, the development of core skills (design, make, evaluate) and technical knowledge is detailed to ensure that progression is logical, achievable and measurable.

### The Design Process:

The Design and technology National Curriculum outlines the three main stages of the design process: design, make and evaluate. Each Kapow Primary follows these stages, to form a full project. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical and technical understanding, required for each strand.



<b>Reception</b>		
<b>Autumn two</b>	<b>Spring two</b>	<b>Summer two</b>
<b>Unit: Junk modelling</b>	<b>Unit: Soup</b>	<b>Unit: Bookmarks</b>
<b>Structures</b>	<b>Cooking and nutrition</b>	<b>Textiles</b>
To take inspiration from designers throughout history. <b>David Edgar</b>	To take inspiration from designers throughout history. <b>Jamie Oliver</b>	To take inspiration from designers throughout history. <b>Stella McCartney</b>
L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.
L.O: To explore and investigate the tools and materials in junk modelling area.	L.O: To explore fruits and vegetables and the differences between them.	L.O: To develop threading and weaving skills.
L.O: To investigate cutting different materials.	L.O: To explore a pumpkin and describe it using the five senses.	L.O. To practise and apply weaving skills to a specific material e.g. paper
L.O: To learn how to plan and select the correct resources needed to make a model.	L.O: To design a fruit and vegetable soup recipe.	L.O: To practise and apply threading skills with specific materials e.g. hessian and wool
L.O: To verbally plan and create a junk model.	L.O: To learn how the use a knife safely.	L.O: To use threading or sewing to design a product (bookmark).
L.O: To share a finished model and talk about the processes in its creation.	L.O: To safely use tools to prepare ingredients.	L.O: To create a textiles product (bookmark) following their own design.
L.O: To explore different ways to temporarily join materials together.	L.O: To design food packaging.	L.O: To reflect with children on how they have achieved their aims.

Year One		
Autumn two	Spring one	Spring two
<b>Unit: making a moving story book</b>	<b>Unit: Puppets</b>	<b>Unit: Smoothies</b>
<b>Mechanisms</b>	<b>Textiles</b>	<b>Food and nutrition</b>
To take inspiration from designers throughout history. <b>Karl Benz</b>	To take inspiration from designers throughout history. <b>Bill Baird</b>	To take inspiration from designers throughout history. <b>Richard Reed</b>
L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.
L.O: To explore making mechanisms.	L.O. To explore a range of puppets.	L.O: To identify fruits and vegetables.
L.O To make a moving mechanism.	L.O: To join fabrics together using different methods (pinning, stapling, gluing).	L.O: To describe where fruits and vegetables grow.
L.O: To design a moving storybook for a target audience.	L.O: To use a template to create my design.	L.O: To practise food preparation skills and evaluate the tastes of different fruits and vegetables.
L.O: To construct a moving picture.	L.O: To join two fabrics together accurately (pinning, stapling, gluing)	L.O: To select ingredients for a recipe based on food tasting.
L.O: To evaluate my finished product.	L.O: To embellish my design using joining methods.	L.O: To apply food preparation skills to a recipe.
L.O To explore and evaluate how wheels move. <i>Create a simple version of a wheel mechanism including an axle, wheel and axle holder.</i>	L.O. To evaluate my puppet against a design criteria.	L.O: To evaluate recipe against the design brief.



Year Two		
Autumn two	Summer one	Summer two
<b>Unit: Pouches</b>	<b>Unit: Balanced diet</b>	<b>Unit: Baby bear's chair</b>
<b>Textiles</b>	<b>Cooking and nutrition</b>	<b>Structures</b>
To take inspiration from designers throughout history. <b>Anne Kelly</b>	To take inspiration from designers throughout history. <b>Bill Granger</b>	To take inspiration from designers throughout history. <b>Charles and Ray Eames</b>
L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.
L.O: To sew a running stitch.	L.O: To recognise foods and their food groups.	L.O: To explore the features of chairs.
L.O: To design a pouch using a template and design criteria. <i>Produce a class design brief.</i>	L.O: To identify the balance of food groups in a meal.	L.O: To explore the concept and features of structures and the stability of different shapes.
L.O: To sew a running stitch using a template attached with pins.	L.O: To identify an appropriate piece of equipment to prepare a given food.	L.O: To create a class design criteria to build a strong structure using paper.
L.O: To join fabrics using a running stitch.	L.O: To select balanced combinations of ingredients.	L.O: To make a structure according to design criteria.
L.O: To decorate a pouch using fabric glue or stitching.	L.O: To design based on criteria.	L.O: To produce a finished structure focusing on strength, stiffness and stability.
L.O: To evaluate design against class design brief.	L.O: To evaluate a dish based on design criteria.	L.O: To evaluate a finished structure and evaluate its strength, stiffness and stability.

Year Three		
Autumn one	Spring one	Spring two
<b>Unit: cushions</b>	<b>Unit: Constructing a castle</b>	<b>Unit: Wearable technology</b>
<b>Textiles</b>	<b>Structures</b>	<b>Digital world</b>
To take inspiration from designers throughout history. <b>William Morris</b>	To take inspiration from designers throughout history. <b>Antoni Gaudi</b>	To take inspiration from designers throughout history. <b>Louis Vuitton</b>
L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.
L.O: To join fabrics using a cross-stitch and learn how to sew appliqué.	L.O: To explore the key features of a castle.	L.O: To explore the impact of the digital revolution in the world of (D&T) product design.
L.O: To create a class design criteria and produce a design brief.	L.O: To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure.	L.O: To develop design criteria to make a foam eCharm pouch.
L.O: To design a product and its template.	L.O: To design a castle that follows a design brief.	L.O: To make a foam eCharm pouch
L.O: To decorate fabric using appliqué and cross-stitch.	L.O: To construct 3D nets by accurately cutting, folding and sticking.	L.O: To use code to program and control a product.
L.O: To assemble and complete a cushion.	L.O: To construct a castle that follows a design brief.	L.O: To develop ideas through computer-aided design.
L.O: To evaluate a cushion against a design criteria.	L.O: To evaluate a castle against a design brief.	L.O: To improve a design based on feedback.

Year Four		
Autumn two	Spring one	Spring two
<b>Unit: Adapting a recipe</b>	<b>Unit: Making a slingshot car</b>	<b>Unit: Touches</b>
<b>Cooking and nutrition</b>	<b>Mechanical systems</b>	<b>Electrical systems</b>
To take inspiration from designers throughout history. <b>Mary Berry</b>	To take inspiration from designers throughout history. <b>Henry Ford</b>	To take inspiration from designers throughout history. <b>David Misell</b>
L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.
L.O: To explore and evaluate a range of existing biscuit products.	L.O: To build a car chassis by following a set of instructions.	L.O: To explore electrical items and how they work.
L.O: To prepare and cook a dish.	L.O: To design a shape that reduces air resistance.	L.O: To analyse and evaluate electrical products (torches) and understand how they work.
L.O: To select ingredients and follow a budget.	L.O: To make a car model based on a chosen design brief.	L.O: To explore different target audiences and create a design brief.
L.O: To take inspiration from existing products.	L.O: To assemble a moving car using joining techniques.	L.O: To design a product to fit a set of specific user needs.
L.O: To make and test a prototype biscuit.	L.O: To assemble and test my completed product.	L.O: To make a torch that uses a working circuit and switch.
L.O: To evaluate a final product.	L.O: To evaluate my car against a design criteria.	L.O: To make and evaluate a torch against a design criteria.



Year Five		
Autumn two	Summer one	Summer two
<b>Unit: Bridges</b>	<b>Unit: Doodlers</b>	<b>Unit: Developing a recipe</b>
<b>Structures</b>	<b>Electronic systems</b>	<b>Food and nutrition</b>
To take inspiration from designers throughout history. <b>Willian Howe</b>	To take inspiration from designers throughout history. <b>Don Lewis</b>	To take inspiration from designers throughout history. <b>Jamie Oliver</b>
L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.
L.O: To investigate structures by looking at different bridges.	L.O: To understand how motors are used in electrical products.	L.O: To understand how ingredients are reared and processed.
L.O: To explore how to reinforce a beam (structure) to improve its strength.	L.O: To investigate an existing product to determine the factors that affect the product's form and function.	L.O: To make adaptations to design a recipe.
L.O: To build a spaghetti truss bridge.	L.O: To apply the findings from research to develop a unique product.	L.O: To evaluate nutritional content.
L.O: To design a truss bridge that follows a design criteria.	L.O: To design a doodler for a specific user.	L.O: To practise food preparation skills.
L.O: To build a wooden truss bridge.	L.O: To make a doodler based on design criteria.	L.O: To design a product label.
L.O: To complete, reinforce and evaluate my truss bridge.	L.O: To develop a DIY kit for another individual to assemble their product.	L.O: To follow and make an adapted recipe.

Year Six		
Autumn one	Spring one	Spring two
<b>Unit: Automata toys</b>	<b>Unit: Come dine with me</b>	<b>Unit: Navigating the world</b>
<b>Mechanical systems</b>	<b>Food and nutrition</b>	<b>Digital word</b>
To take inspiration from designers throughout history. <b>Pierre Jaquet-Droz</b>	To take inspiration from designers throughout history. <b>Lorraine Pascal</b>	To take inspiration from designers throughout history. <b>Roger L. Easton</b>
L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.	L.O: To explain how key events and individuals in design and technology helped shape the world.
L.O: To investigate different camshafts and toys that have cam mechanisms.	L.O: To explain the use of complementary flavours.	L.O: To write a design brief and criteria based on a client request.
L.O: To create design criteria to meet a user's needs.	L.O: To research and design a three-course meal.	L.O: To write a program to include multiple functions as part of a navigation device.
L.O: To cut wood accurately so that it is ready for assembly.	L.O: To explain recipe choices.	L.O: To develop a sustainable product concept.
L.O: To use an exploded diagram to assemble the automata frame.	L.O: To apply culinary skills and knowledge.	L.O: To develop 3D CAD skills to produce a virtual model.
L.O: To explore the relationship between cam profiles and follower movements, to inform a design decision.	L.O: To apply culinary skills and knowledge.	L.O: To present a pitch to 'sell' the product to a specified client.
L.O: To make an automata frame and evaluate it against the design criteria.	L.O: To apply culinary skills and knowledge.	LO: To evaluate the sustainable product against the design criteria.

