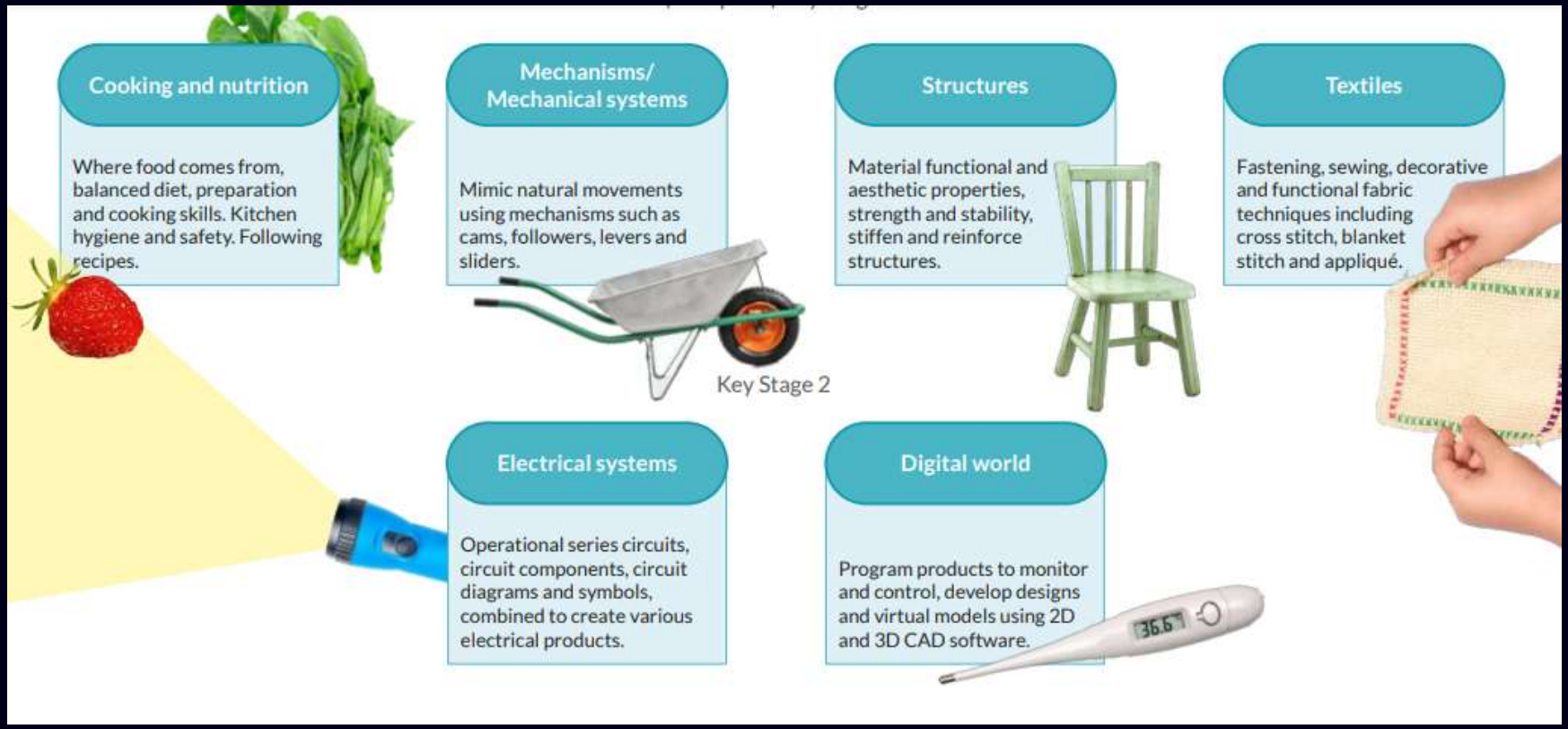
Design and Technology Curriculum

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

Design and Technology Curriculum:

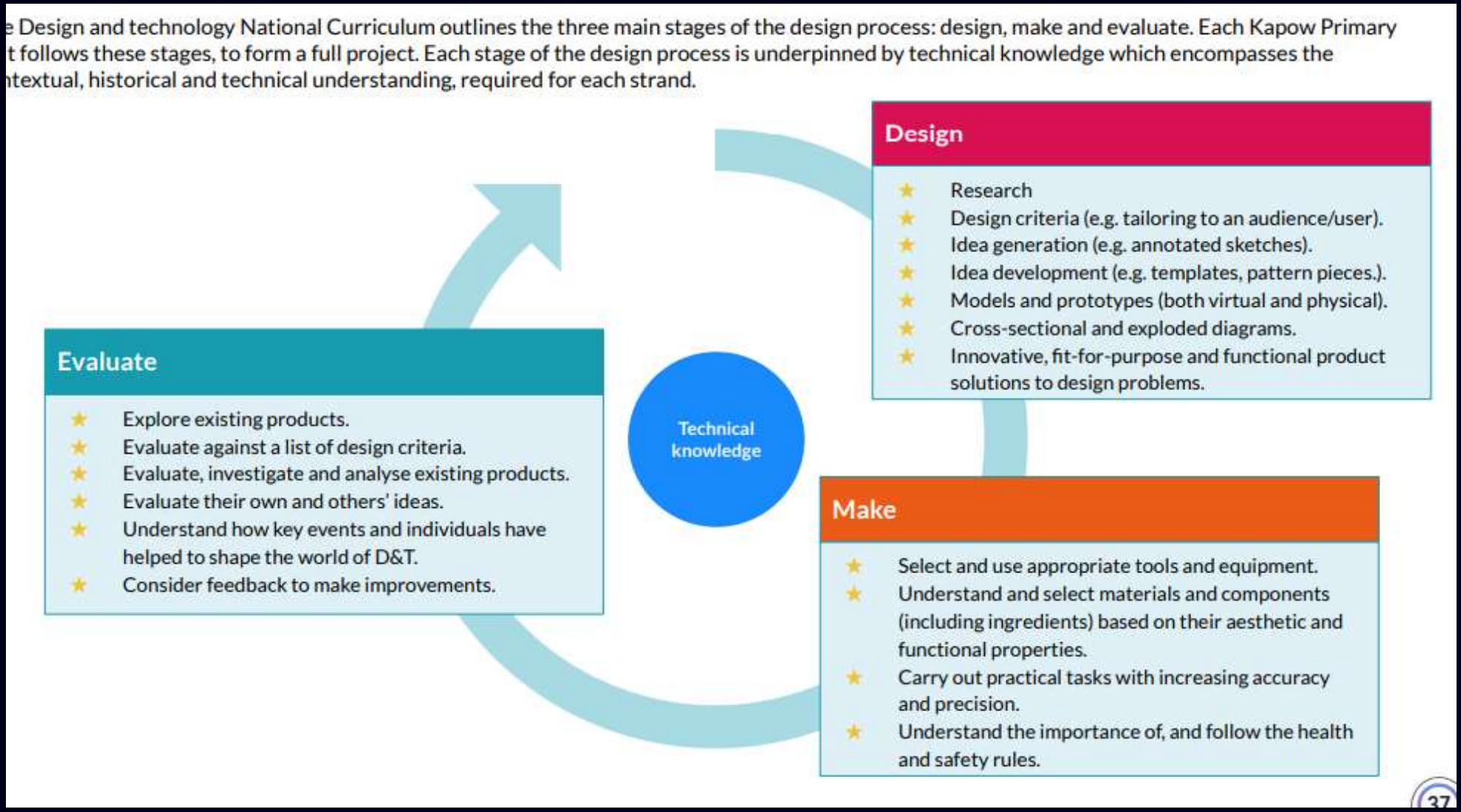
There are knowledge and skills developed in the DT curriculum Scheme of Work and are covered in the following areas:

- **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:



Reception		
Autumn two	**Spring two**	**Summer two**
Unit: Junk modelling	**Unit: Soup**	**Unit: Bookmarks**
Structures	**Cooking and nutrition**	**Textiles**
To take inspiration from designers throughout history. **David Edgar**	To take inspiration from designers throughout history. **Jamie Oliver**	To take inspiration from designers throughout history. **Stella McCartney**
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**
Unit: making a moving story book	**Unit: Puppets**	**Unit: Smoothies**
Mechanisms	**Textiles**	**Food and nutrition**
To take inspiration from designers throughout history. **Karl Benz**	To take inspiration from designers throughout history. **Bil Baird**	To take inspiration from designers throughout history. **Richard Reed**
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. *Create a simple version of a wheel mechanism including an axle, wheel and axle holder.*	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**
Unit: Pouches	**Unit: Balanced diet**	**Unit: Baby bear's chair**
Textiles	**Cooking and nutrition**	**Structures**
To take inspiration from designers throughout history. **Anne Kelly**	To take inspiration from designers throughout history. **Bill Granger**	To take inspiration from designers throughout history. **Charles and Ray Eames**
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. *Produce a class design brief.*	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**
Unit: cushions	**Unit: Constructing a castle**	**Unit: Wearable technology**
Textiles	**Structures**	**Digital world**
To take inspiration from designers throughout history. **William Morris**	To take inspiration from designers throughout history. **Antoni Gaudi**	To take inspiration from designers throughout history. **Louis Vuitton**
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 research and evaluate existing products.
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.
L.O: To design a product and its template.	L.O: To design a castle that follows a design brief.	L.O: To use code to program and control a product.
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 develop and communicate ideas.
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**
Unit: Adapting a recipe	**Unit: Making a slingshot car**	**Unit: Torches**
Cooking and nutrition	**Mechanical systems**	**Electrical systems**
To take inspiration from designers throughout history. **Mary Berry**	To take inspiration from designers throughout history. **Henry Ford**	To take inspiration from designers throughout history. **David Misell**
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**
Unit: Bridges	**Unit: Doodlers**	**Unit: Developing a recipe**
Structures	**Electronic systems**	**Food and nutrition**
To take inspiration from designers throughout history. **Willian Howe**	To take inspiration from designers throughout history. **Don Lewis**	To take inspiration from designers throughout history. **Jamie Oliver**
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**
Unit: Automata toys	**Unit: Come dine with me**	**Unit: Navigating the world**
Mechanical systems	**Food and nutrition**	**Digital word**
To take inspiration from designers throughout history. **Pierre Jaquet-Droz**	To take inspiration from designers throughout history. **Lorraine Pascal**	To take inspiration from designers throughout history. **Roger L. Easton**
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.