


Here at Offenham CE First School we use Kapow Primary D&T as the basis of our planning for progression in D&T.

Here is an overview of what units are covered during our teaching cycles.


### Cycle A

	<p>Year 1 - Formal elements of art, D&amp;T - mechanisms - wheels and axles</p>	<p>Year 1 - Sculpture and collage, D&amp;T - Structures - constructing a windmill</p>	<p>Year 1 - Landscapes, D&amp;T - textiles</p>
	<p>Year 2 - Formal elements of art, D&amp;T - mechanisms - moving monster</p>	<p>Year 2 - Sculpture and mixed media, D&amp;T - structures - Baby bear's chair</p>	<p>Year 2 - Human form, D&amp;T - Textiles</p>
	<p>Cotswold class - Formal elements of art, D&amp;T— Electrical systems - torches</p>	<p>Cotswold class - Every picture tells a story, D&amp;T Eating seasonally</p>	<p>Cotswold class - Craft, D&amp;T - Structures constructing a castle</p>
	<p>Severn class - formal elements of art, D&amp;T - Electrical systems</p>	<p>Severn class - Every picture tells a story, D&amp;T Food- adapting a recipe</p>	<p>Severn class - Design for a purpose, D&amp;T - Structures bridges</p>

### Cycle B

	<p>Year 1 - Formal elements of art, D&amp;T - mechanisms - wheels and axles</p>	<p>Year 1 - Sculpture and collage, D&amp;T - Structures - constructing a windmill</p>	<p>Year 1 - Landscapes, D&amp;T - Textiles</p>
	<p>Year 2 - Formal elements of art, D&amp;T - mechanisms - moving monster</p>	<p>Year 2 - Sculpture and mixed media, D&amp;T - structures - Baby bear's chair</p>	<p>Year 2 - Human form, D&amp;T - Textiles</p>
	<p>Cotswold class - Formal elements of art, D&amp;T - cushions</p>	<p>Cotswold class - Art and design skills, D&amp;T—slingshot car</p>	<p>Cotswold class - Sculpture, D&amp;T—Mindfulness moments timer</p>
	<p>Severn class - Art and design skills, D&amp;T stuffed toys</p>	<p>Severn class - Photography, D&amp;T slingshot car</p>	<p>Severn class - Still life, D&amp;T Mindfulness moments timer</p>

### Cycle C

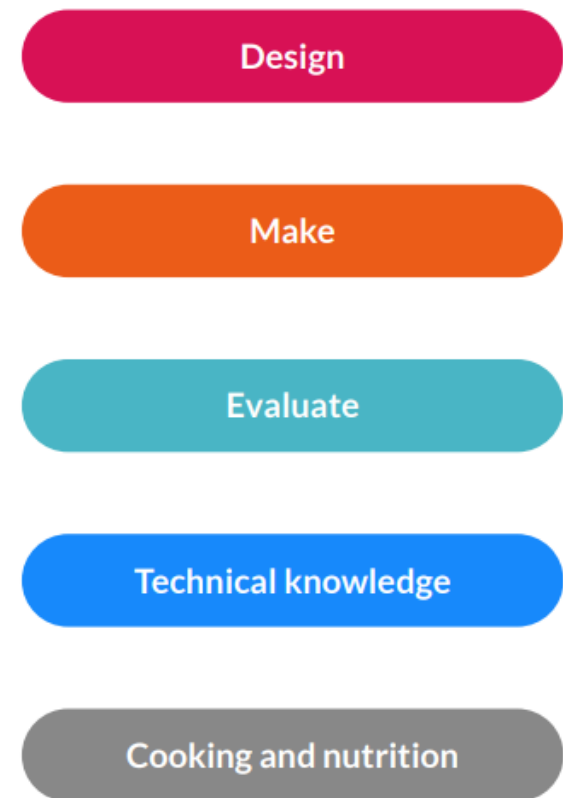
	<p>Year 1 - Formal elements of art, D&amp;T - mechanisms - wheels and axles</p>	<p>Year 1 - Sculpture and collage, D&amp;T - Structures - constructing a windmill</p>	<p>Year 1 - Landscapes, D&amp;T - textiles</p>
	<p>Year 2 - Formal elements of art, D&amp;T - mechanisms - moving monster</p>	<p>Year 2 - Sculpture and mixed media, D&amp;T - structures - Baby bear's chair</p>	<p>Year 2 - Human form, D&amp;T - Textiles</p>
	<p>Cotswold class - Art and design skills, D&amp;T - Electrical systems - Electronic greetings cards</p>	<p>Cotswold class - Prehistoric art, D&amp;T - What could be healthier?</p>	<p>Cotswold class - Craft/Sculpture, D&amp;T - textiles fastenings</p>
	<p>Severn class - Art and design skills, D&amp;T - Electrical systems - Electronic greetings cards</p>	<p>Severn class - Prehistoric art, D&amp;T - What could be healthier?</p>	<p>Severn class - Design for a purpose, D&amp;T - textiles fastenings</p>

## *How does Kapow Primary's scheme of work align with the National Curriculum?*

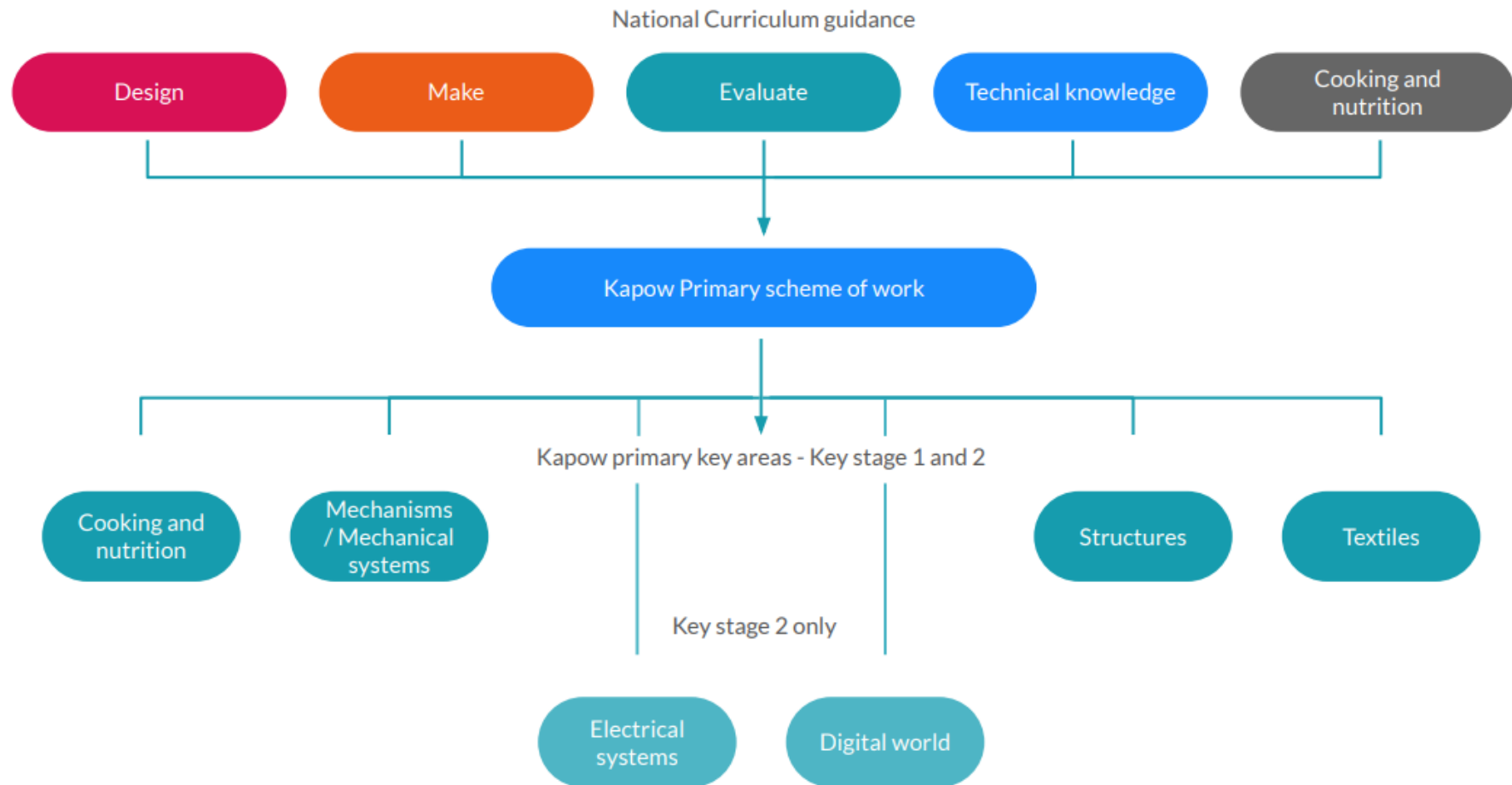
Our scheme of work fulfils the statutory requirements outlined in the **National Curriculum (2014)**. The National Curriculum Programme of Study for Design and technology aims to ensure that all pupils:

- ★ develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- ★ build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.
- ★ critique, evaluate and test their ideas and products and the work of others.
- ★ understand and apply the principles of nutrition and learn how to cook.

We have identified five key strands which run throughout our scheme of work:



## How is the Design and technology scheme of work organised?



# Key areas

The six key areas are revisited each year, with Electrical systems and Digital world beginning in KS2. The areas enable all subject leads, specialists or non-specialists, to understand and make it easy for teachers to see prior and future learning for your pupils. You can see, at a glance, how the unit you are teaching fits into their wider learning journey.

Key Stage 1 and 2

## Cooking and nutrition

Where food comes from, balanced diet, preparation and cooking skills. Kitchen hygiene and safety. Following recipes.



## Mechanisms/ Mechanical systems

Mimic natural movements using mechanisms such as cams, followers, levers and sliders.



## Structures

Material functional and aesthetic properties, strength and stability, stiffen and reinforce structures.



## Textiles

Fastening, sewing, decorative and functional fabric techniques including cross stitch, blanket stitch and appliqué.



Key Stage 2

## Electrical systems

Operational series circuits, circuit components, circuit diagrams and symbols, combined to create various electrical products.



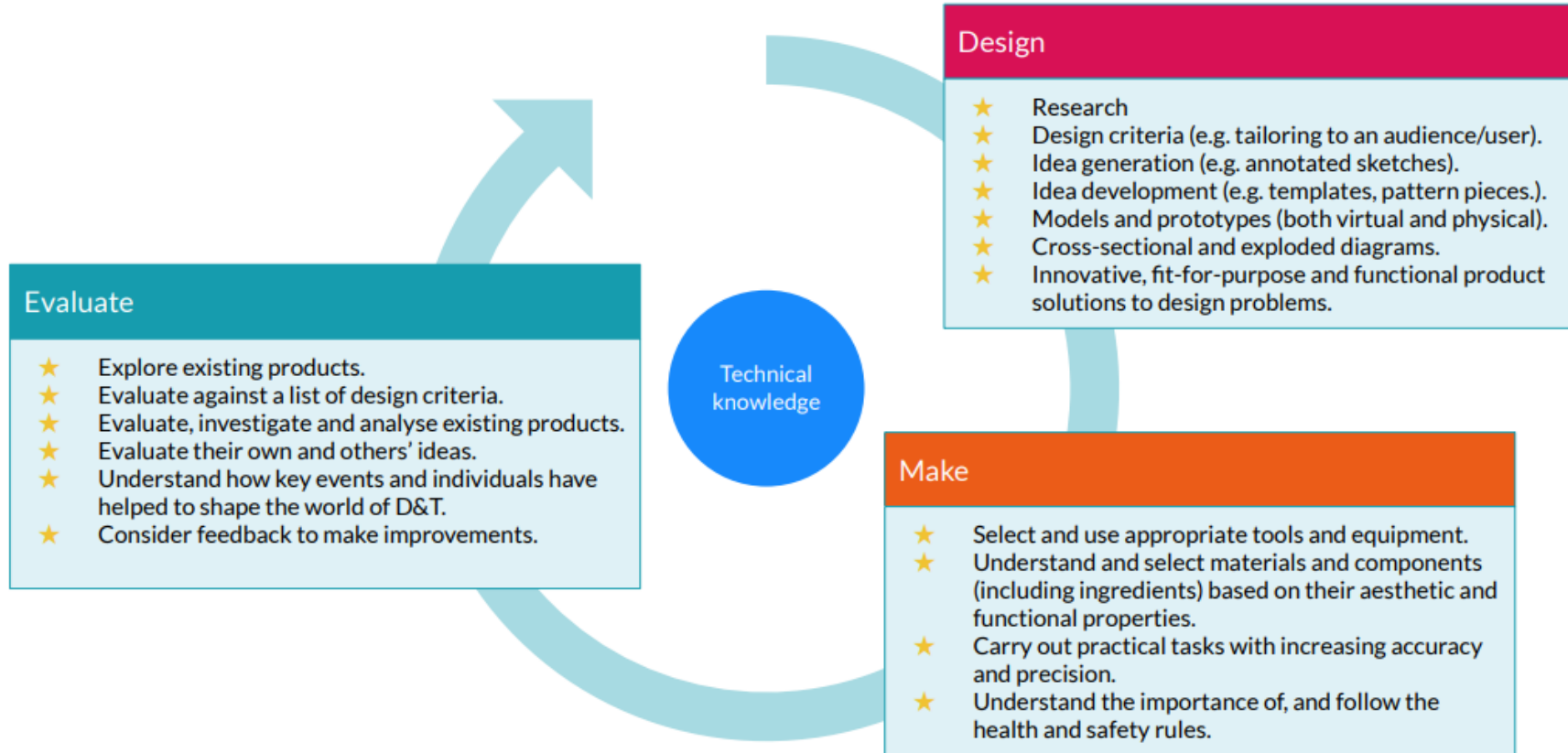
## Digital world

Program products to monitor and control, develop designs and virtual models using 2D and 3D CAD software.



# 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 unit 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.



## How does Kapow Primary help our school to meet statutory guidance for D&T?

Each of our key areas links to the technical knowledge section of the Design and technology National Curriculum or reinforces principles learnt through exploring various methods and techniques. From KS1 to KS2, the technical knowledge descriptors build upon prior learning and/or introduce new learning.

	Structures	Mechanisms	Textiles	Electrical systems	Digital world	Cooking and nutrition
KS1	Build structures such as windmills and chairs, exploring how they can be made stronger, stiffer and more stable. Recognise areas of weakness through trial and error.	Introduce and explore simple mechanisms, such as sliders, wheels and axles in their designs. Recognise where mechanisms such as these exist in toys and other familiar products.	Explore different methods of joining fabrics and experiment to determine the pros and cons of each technique.	<p><b>KS2 only*</b> Create functional electrical products that use series circuits, incorporating different components such as bulbs, LEDs, switches, buzzers and motors.</p> <p>Consider how the materials used in these products can:</p>	<p><b>KS2 only*</b> Learn how to develop an electronic product with processing capabilities.</p> <p>Apply Computing principles to program functions within a product including to control and monitor it.</p>	<p>Learn about the basic rules of a healthy and varied diet to create dishes.</p> <p>Understand where food comes from, for example plants and animals.</p>
KS2	Continue to develop KS1 exploration skills, through more complex builds such as pavilion and bridge designs. Understand material selection and learn methods to reinforce structures.	<p><b>Mechanical systems</b></p> <p>Extend pupils understanding of individual mechanisms, to form part of a functional system, for example: Automatas, that use a combination of cams, followers, axles/shaft, cranks and topers.</p>	<p>Understand that fabric can be layered for effect, recognising the appearance and technique for different stitch and fastening types, including their:</p> <ul style="list-style-type: none"> <li>• Strength.</li> <li>• Appropriate use.</li> <li>• Design.</li> </ul>	<ul style="list-style-type: none"> <li>• Protect the circuitry.</li> <li>• Reflect light.</li> <li>• Conduct electricity.</li> <li>• Insulate.</li> </ul>	<p>Understand how the history and evolution of product design lead to the on-going Digital revolution and the impact it is having in the world today.</p>	<p>Understand and apply the principles of a healthy and varied diet to prepare and cook a variety of dishes using a range of cooking techniques and methods.</p> <p>Understand what is meant by seasonal foods.</p> <p>Know where and how ingredients are sourced.</p>