

Our Design and Technology Intent

Our Design and Technology curriculum is based on the National Curriculum and will allow children to develop a range of necessary life skills. We aim to encourage children to become autonomous and creative problem solvers, both as individuals and as part of a team. The specific skills of design, make and evaluate, and improve alongside technical knowledge and cooking and nutrition all underpin our curriculum design and priorities. Our pupils will develop their subject knowledge alongside learning life-long practical skills. Children will learn to be ambitious in their designs whilst also being resilient in the making and creating process. Design and Technology at Christ Church prepares children to take part in the development of today's rapidly changing world.

Our Design and Technology Implementation

Christ Church uses a variety of teaching and learning styles in Design and Technology lessons. The principal aim is to develop children's knowledge, skills and understanding in the subject. Teachers are consistent in ensuring that children apply their knowledge and understanding when developing ideas, planning, and making products and then evaluating them for further improvement. This is completed through a mixture of whole class teaching and individual/group activities. Within lessons, we give children the opportunity to work both on their own and to collaborate with others, listening to other children's ideas. Children have the opportunity to use a wide range of materials and resources, including ICT to support them with their learning. The skills of Design and Technology are planned and taught using the extensive KAPOW curriculum. Through the scheme, children are able to recap on prior learning and progress their skills further.

Christ Church Designers will ...

Talk of a love of Design and Technology.

Be ambitious and creative in their design process.

Be brave and resilient when faced with challenge.

Know how design and technology can be used in everyday life.

Talk about their design and be excited to improve this following feedback.

Develop the creative, technical, and practical expertise needed to design, make, and evaluate their product.

Understand and apply the principles of nutrition and learn how to cook.

Talk of a love of cooking.

Design and technology, and Art and design (revised scheme)

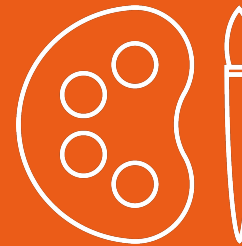
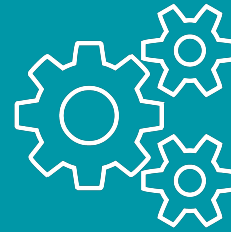
Long term plan

Combined

This EYFS: Reception, Key stage 1 and Key stage 2 plan is designed for those schools who alternate between teaching Design and technology and Art and Design each half term

This document is regularly updated to reflect changes to our content. This version was created on 28.08.23 and the most recent version can always be found [here](#).

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*Kapow
Primary™*

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As our units are shorter than six weeks, we have added some suggestions for stand-alone lessons.

	Autumn term		Spring term		Summer term		Stand alone lessons
	Design and technology	Art and design	Design and technology	Art and design	Design and technology	Art and design	
EYFS: Reception	Structures: Junk modelling (6 lessons) Omit lessons 3, and 6 if needed.	Drawing: Marvellous marks (6 lessons) Omit lesson 2 if needed.	Textiles: Bookmarks (6 lessons) Omit lessons 3 and 6 if needed.	Painting and mixed media: Paint my world (6 lessons) Omit lessons 1 and 4 if needed.	Structures: Boats (6 lessons) Omit lessons 3 and 4 if needed.	Sculpture and 3D: Creation station (6 lessons) Omit lessons 2 and 3 if needed.	Design and technology Unit: Seasonal projects - as and when relevant throughout the year. Art and design Seasonal Crafts as and when relevant throughout the year.
Year 1	Structures: Constructing a windmill (4 lessons)	Drawing: Make your mark (5 lessons)	Textiles: Puppets (4 lessons)	Sculpture and 3D: Paper play (5 lessons)	Cooking and nutrition: Fruit and vegetables (4 lessons)	Painting and mixed media: Colour splash (5 lessons)	Design and technology Unit: Mechanisms: Making a moving story book (Lesson 1) Art and design Unit: Craft: Woven wonders (Lesson 1, 2 and/or 3)
Year 2	Art and design Craft and design: Map it out (5 lessons)	Design and technology Structures: Baby bear's chair (4 lessons)	Art and design Painting and mixed media: Life in colour (5 lessons)	Design and technology Mechanisms: Fairground wheel (4 lessons)	Art and design Sculpture and 3D: Clay houses (5 lessons)	Design and technology Mechanisms: Making a moving monster (4 lessons)	Design and technology Unit: Food: A balanced diet (Lesson 1) Art and design Unit: Drawing: Tell a story (Lesson 2, 4 and /or 5)
Year 3	Design and technology Cooking and nutrition: Eating seasonally (4 lessons)	Art and design Drawing: Growing artists (5 lessons)	Design and technology Digital world: Wearable technology (6 lessons)	Art and design Craft and design: Ancient Egyptian scrolls (5 lessons)	Design and technology Structures: Constructing a castle (4 lessons)	Art and design Sculpture and 3D: Abstract shape and space (5 Lessons)	Design and technology Unit: Textiles: Cross-stitch and appliqué (Lesson 1) Unit: Mechanical systems: Pneumatic toys (Lesson 1 and/or 2) Art and design Unit: Painting and mixed media: Prehistoric painting (Lesson 1, 3 and /or 4)

As our units are shorter than six weeks, we have added some suggestions for stand-alone lessons.

	Autumn term		Spring term		Summer term		Stand alone lessons
	Art and design	Design and technology	Art and design	Design and technology	Art and design	Design and technology	
Year 4	Drawing: Power prints (5 lessons)	Structure: Pavilions (4 lessons)	Painting and mixed media: Light and dark (5 lessons)	Mechanical systems: Making a slingshot car (4 lessons)	Craft and design: Fabric of nature (5 lessons)	Electrical systems: Torches (4 lessons)	<p>Design and technology Unit: Food: adapting a recipe (Lesson 1) Unit: Textiles: Fastenings (Lesson 1)</p> <p>Art and design Unit: Sculpture and 3D: Mega materials (Lesson 1, 2 and/or 5)</p>
Year 5	Design and technology	Art and design	Design and technology	Art and design	Design and technology	Art and design	
	Electrical systems: Doodlers (4 lessons)	Sculpture and 3D: Interactive installation (5 lessons)	Mechanical systems: Making a pop-up book (4 lessons)	Drawing: I need space (5 lessons)	Cooking and nutrition: What could be healthier? (4 lessons)	Painting and mixed media: Portraits (5 lessons)	<p>Art and design Unit: Craft and design: Architecture (Lesson 3, 4 and/or 5)</p>
Year 6	Art and design	Design and technology	Art and design	Design and technology	Art and design	Design and technology	
	Craft and design: Photo opportunity (5 lessons)	Textiles: Waistcoats (4 lessons)	Drawing: Make my voice heard (5 lessons)	Structure: Playgrounds (4 lessons)	Sculpture and 3D: Making memories - (5 lessons)	Digital world: Navigating the world (4 lessons)	<p>Art and design Unit: Painting and mixed media: Artist study (Lesson 1, 4 and/or 5)</p>

Why have we chosen to include these **Art and design** units?

All Kapow Primary **Art and design** units provide coverage of the national curriculum so that you could choose any combination of units to suit your school. We have suggested retaining the three units per year group that give the best overall skills coverage when combined with the Design and technology units.

The Art and design units have been given the titles Drawing, Painting and mixed media, Sculpture and 3D and Craft and design to make skills progression within the spiral curriculum more easily identifiable. However, it is important to remember that skills in Art and design flow between units; the curriculum has been designed to be holistic.

You will find that, for example, drawing skills appear in almost every unit; children may apply what they have learned about mixed-media to a task in a Sculpture and 3D unit, and so on. When identifying skills for assessment, it will help to consider skills coverage from across all the units taught within the year group.

Because our Art and design units are designed to take five lessons, we have also included some suggestions for stand alone lessons which you could use if you find that you have lessons 'to spare.' Please note that the skills and knowledge from these stand alone lessons is **not** included on the *Progression of knowledge and skills – combined*.



Drawing

- Exploring mark-making in all its forms, experimenting with line, tone and texture and using a wide range of materials to express their ideas as drawings.
- Using sketchbooks to record observations and plans as drawings.
- Learning about how artists develop their ideas using drawings.



Painting and mixed media

- Developing painting skills including colour mixing, painting on a range of surfaces and with different tools.
- Exploring the interplay between different media within an artwork.



Sculpture and 3D

- Investigating ways to express ideas in three-dimensions.
- Constructing and modelling with a variety of materials, shaping and joining materials to achieve an outcome.
- Developing drawn ideas into sculpture.



Craft and design

- Designing and making art for different purposes, considering how this works in creative industries.
- Learning new making techniques, comparing these and making decisions about which to use to achieve a particular outcome
- Developing personal, imaginative responses to a design brief

Why have we chosen to include these Design and technology units?

For Design and technology, we had to make some difficult decisions about which units to include and which to omit. We have carefully selected units to ensure gradual progression towards the National curriculum end of key stage attainment targets and to cover all of the four strands shown below in enough detail.

Design

Make

Evaluate

Technical knowledge

Some key areas appear less frequently than others, for example Textiles, and this is deliberate. The National curriculum statements below show that working with textiles is only a small element of the Make strand and many of the making techniques covered in our Textiles units are also covered with a range of materials in other units, such as the use of templates, modelling, measuring and marking out, cutting, shaping and joining.

Make (KS1)

select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] **select from and use a wide range of materials** and components, including construction materials, textiles and ingredients, according to their characteristics

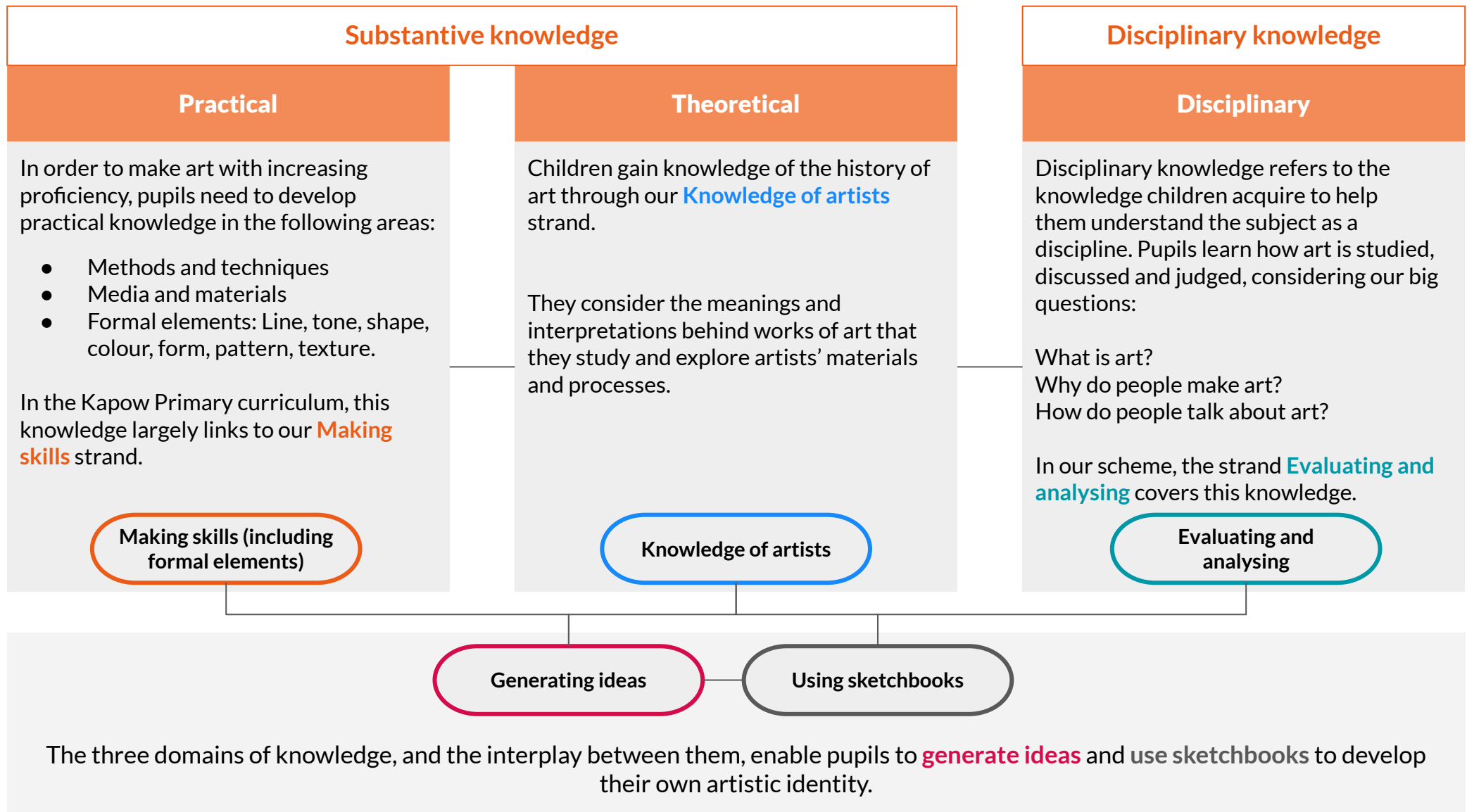
Make (KS2)

select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately **select from and use a wider range of materials** and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Similarly in Year 2, the coverage of key areas is deliberately imbalanced as there are two Mechanisms units. This is because there is strong progression between the Y1 Structures: Constructing a windmill and the Y2 Mechanisms: Fairground wheel and then again with the Y2 Mechanisms: Making a moving monster. To omit one of these units would negatively impact on the progression.

Because our Design and technology units are designed to take four lessons, we have also included some suggestions for stand alone lessons which you could use if you find that you have lessons 'to spare.' Please note that the skills and knowledge from these stand alone lessons is **not** included on the *Progression of knowledge and skills – combined*.

Types of knowledge in Art and design



In response to the [Ofsted research review series: Art and design](#) publication (Ofsted, 2023) we have shown how the different types of knowledge build in our progression of skills for Art and design. This page shows how those forms of knowledge are interconnected.

Reception	
Autumn term	<p>Structures: Junk modelling Exploring and learning about various types of permanent and temporary join. Pupils are encouraged to tinker using a combination of materials and joining techniques in the junk modelling area.</p>
	<p>Drawing: Marvellous marks Exploring mark making and using the language of texture, children use wax crayons to make rubbings and chalk on different surfaces. They use felt tips to explore colour and pencils to create observational drawings of their faces.</p>
Spring term	<p>Textiles: Bookmarks Developing and practising threading and weaving techniques using various materials and objects. Pupils look at the history of the bookmark from Victorian times versus modern-day styles. The pupils apply their knowledge and skills to design and sew their own bookmarks.</p>
	<p>Painting Paint my world Creating child-led paintings using fingers and natural items as tools, children learn that colours can be mixed and that paintings can be abstract or figurative. They make collages and explore different techniques for using paint when creating splatter pictures.</p>
Summer term	<p>Structures: Boats Exploring what is meant by 'waterproof', 'floating' and 'sinking', pupils experiment and make predictions with various materials to carry out a series of tests. They learn about the different features of boats and ships before investigating their shape and structures to build their own.</p>
	<p>Sculpture and 3D: Creation station Manipulating playdough and clay to make animal sculptures and their own creations, children begin to use language associated with forces: push, pull, twist etc. They create natural landscape pictures using items they have found outdoors.</p>



	Year 1	Year 2
Autumn term	<p><u>Structures: Constructing windmills</u> Designing, decorating and building a windmill for their mouse client to live in, developing an understanding of different types of windmill, how they work and their key features.</p>	<p><u>Craft and design: Map it out</u> Responding to a design brief, children create a piece of art that represents their local area using a map as their stimulus. They learn three techniques for working creatively with materials and at the end of the project, evaluate their design ideas, choosing the best to meet the brief.</p>
	<p><u>Drawing: Make your mark</u> Developing observational drawing skills when exploring mark-making. Children use a range of tools, investigating how texture can be created in drawings. They apply their skills to a collaborative piece using music as a stimulus and investigate artists Bridget Riley and Zaria Forman.</p>	<p><u>Structures: Baby bear's chair</u> Using the tale of Goldilocks and the Three Bears as inspiration, children help Baby Bear by making him a brand new chair. When designing the chair, they consider his needs and what he likes and explore ways of building it so that it is strong.</p>
Spring term	<p><u>Textiles: Puppets</u> Exploring different ways of joining fabrics before creating their own hand puppets based upon characters from a well-known fairytale. Children work to develop their technical skills of cutting, glueing, stapling and pinning.</p>	<p><u>Painting and mixed media: Life in colour</u> Taking inspiration from the collage work of artist Romare Bearden, children consolidate their knowledge of colour mixing and create textures in paint using different tools. They create their own painted paper in the style of Bearden and use it in a collage, linked to a theme suited to their topic or classwork.</p>
	<p><u>Sculpture and 3D: Paper play</u> Creating simple three dimensional shapes and structures using familiar materials, children develop skills in manipulating paper and card. They fold, roll and scrunch materials to make their own sculpture. There are opportunities to extend learning to make a collaborative sculptural piece based on the art of Louise Bourgeois.</p>	<p><u>Mechanisms: Fairground wheel</u> Designing and creating their own Ferris wheels, considering how the different components fit together so that the wheels rotate and the structures stand freely. Pupils select appropriate materials and develop their cutting and joining skills</p>
Summer term	<p><u>Cooking and nutrition: Fruit and vegetables</u> Handling and exploring fruits and vegetables and learning how to identify which category they fall into, before undertaking taste testing to establish their chosen ingredients for the smoothie they will make a design packaging for.</p>	<p><u>Sculpture and 3D: Clay houses</u> Developing their ability to work with clay, children learn how to create simple thumb pots then explore the work of sculptor Rachel Whiteread and apply her ideas in a final piece that uses techniques such as cutting, shaping, joining and impressing into clay.</p>
	<p><u>Painting and mixed media: Colour splash</u> Exploring colour mixing through paint play, children use a range of tools and work on different surfaces. They create paintings inspired by Clarice Cliff and Jasper Johns.</p>	<p><u>Mechanisms: Making a moving monster</u> After learning the terms; pivot, lever and linkage, children design a monster which will move using a linkage mechanism. Children practise making linkages of different types and varying the materials they use to bring their monsters to life.</p>

	Year 3	Year 4
Autumn term	<p><u>Cooking and nutrition: Eating seasonally</u> Discovering when and where fruits and vegetables are grown. Learning about seasonality in the UK and the relationship between the colour of fruits and vegetables and their health benefits by making three dishes.</p>	<p><u>Drawing: Power prints</u> Using everyday electrical items as a starting point, pupils develop an awareness of composition in drawing and combine media for effect when developing a drawing into a print.</p>
	<p><u>Drawing: Growing artists</u> Using botanical drawings and scientific plant studies as inspiration, pupils explore the techniques of artists such as Georgia O'Keefe and Maud Purdy to draw natural forms, becoming aware of differences in the choice of drawing medium, scale and the way tonal shading can help create form.</p>	<p><u>Structures: Pavilions</u> Exploring pavilion structures, children learn about what they are used for and investigate how to create strong and stable structures before designing and creating their own pavilions, complete with cladding.</p>
Spring term	<p><u>Digital world: Wearable technology</u> Design, code and promote a piece of wearable technology to use in low light conditions, developing their understanding of programming to monitor and control products to solve a design scenario.</p>	<p><u>Painting and mixed media: Light and dark</u> Developing colour mixing skills, using shades and tints to show form and create three dimensions when painting. Pupils learn about composition and plan their own still life to paint, applying chosen techniques.</p>
	<p><u>Craft and design: Ancient Egyptian scrolls</u> Learning about the way colour, scale and pattern influenced ancient Egyptian art, children explore the technique of papermaking to create a papyrus-style scroll. Ideas are extended to create a modern response by designing a 'zine'.</p>	<p><u>Mechanical systems: Making a slingshot car</u> Transforming lollipop sticks, wheels, dowels and straws into a moving car. Using a glue gun to, making a launch mechanism, designing and making the body of the vehicle using nets and assembling these to the chassis.</p>
Summer term	<p><u>Structures: Constructing a castle</u> Learning about the features of a castle, children design and make one of their own. Using configurations of handmade nets and recycled materials to make towers and turrets and constructing a base to secure them.</p>	<p><u>Craft and design: Fabric of nature</u> Using flora and fauna of tropical rainforests as a starting point, children develop drawings through experimentation and textile-based techniques to a design a repeating pattern suitable for fabric.</p>
	<p><u>Sculpture and 3D: Abstract shape and space</u> Exploring how shapes and negative spaces can be represented by three dimensional forms. Manipulating a range of materials, children learn ways to join and create free-standing structures inspired by the work of Anthony Caro and Ruth Asawa.</p>	<p><u>Electrical systems: Torches</u> Applying their scientific understanding of electrical circuits, children create a torch, designing and evaluating their product against set design criteria.</p>

	Year 5	Year 6
Autumn term	<p><u>Electrical systems: Doodlers</u> Explore series circuits further and introduce motors. Explore how the design cycle can be approached at a different starting point, by investigating an existing product, which uses a motor, to encourage pupils to problem-solve and work out how the product has been constructed, ready to develop their own.</p>	<p><u>Craft and design: Photo opportunity</u> Exploring photography as a medium for expressing ideas, pupils investigate scale and composition, colour and techniques for adapting finished images. They use digital media to design and create photographic imagery for a specific design brief.</p>
	<p><u>Sculpture and 3D: Interactive installation</u> Using inspiration of historical monuments and modern installations, children plan by researching and drawing, a sculpture to fit a design brief. They investigate scale, the display environment and possibilities for viewer interaction with their piece.</p>	<p><u>Textiles: Waistcoats</u> Selecting suitable fabrics, using templates, pinning, decorating and stitching to create a waistcoat for a person or purpose of their choice.</p>
Spring term	<p><u>Mechanical systems: Making a pop-up book</u> Creating a four-page pop-up storybook design incorporating a range of mechanisms and decorative features, including: structures, levers, sliders, layers and spacers.</p>	<p><u>Drawing: Make my voice heard</u> On a journey from the Ancient Maya to modern-day street art, children explore how artists convey a message. They begin to understand how artists use imagery and symbols as well as drawing techniques like expressive mark making, tone and the dramatic light and dark effect called 'chiaroscuro'.</p>
	<p><u>Drawing: I need space</u> Developing ideas more independently, pupils consider the purpose of drawings as they investigate how imagery was used in the 'Space race' that began in the 1950s. They combine collage and printmaking to create a piece in their own style.</p>	<p><u>Structures: Playgrounds</u> Designing and creating a model of a new playground featuring five apparatus, made from three different structures. Creating a footprint as the base, pupils visualise objects in plan view and get creative with their use of natural features.</p>
Summer term	<p><u>Cooking and nutrition: What could be healthier?</u> Researching and modifying a traditional bolognese sauce recipe to make it healthier. Children cook their healthier versions, making appropriate packaging and learn about farming cattle.</p>	<p><u>Sculpture and 3D: Making memories</u> Creating a personal memory box using a collection of found objects and hand-sculptured forms, reflecting primary school life with symbolic and personal meaning.</p>
	<p><u>Painting and mixed media: Portraits</u> Investigating self-portraits by a range of artists, children use photographs of themselves as a starting point for developing their own unique self-portraits in mixed-media.</p>	<p><u>Digital world: Navigating the world</u> Programming a navigation tool to produce a multifunctional device for trekkers. Combining 3D objects to form a complete product in CAD 3D modelling software and presenting a pitch to 'sell' their product.</p>

This page shows recent updates to this document.

Date	Update
06.07.22	Added rationale for selection of units.
29.08.22	Updated Art and design links to reflect the units now available.
12.09.22	We have updated our suggestion for which units to include in our <i>Long-term plan – combined</i> in response to customer feedback about time available.
28.09.22	Swapped Year 3 Spring and Summer unit for Art.
03.11.22	Addition of the EYFS reception units.
05.01.23	Updated Art and design links to reflect the units now available.
18.01.23	Updated to reflect the now fully published revised Art and design scheme.
01.02.23	Updated units titled 'Food' changed to 'Cooking and nutrition' to match other documentation.
21.03.23	Cooking and nutrition removed as a strand on p.6. This is still covered as one of our key areas.
09.06.23	Added information about the types of knowledge in Art and design to p.7.
28.08.23	Updated p.10 with refreshed Digital world unit: Wearable technology.