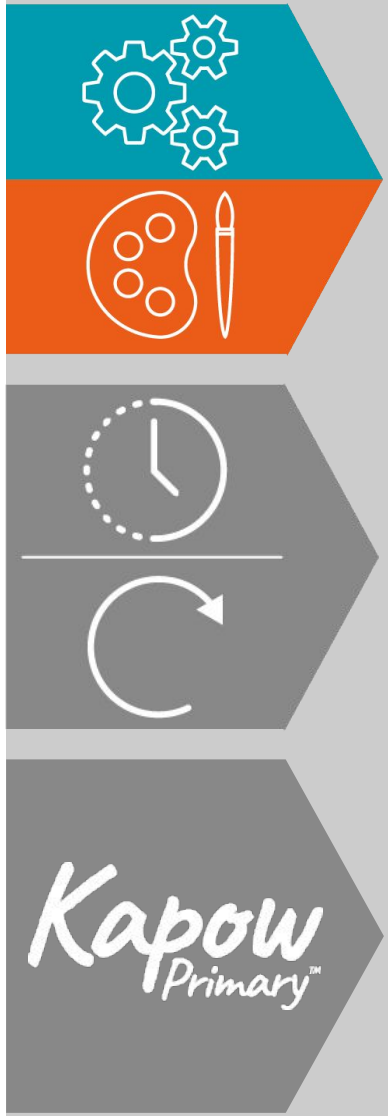
Design and technology, and Art and design (revised scheme)

Long term plan

Mixed-age

This EYFS: Reception, Key stage 1 and Key stage 2 plan is designed for mixed-age settings that alternate between teaching Design and technology and Art and design each half term. Schools must subscribe to **both** the Art and design and the Design and Technology subjects with Kapow primary to access all the lessons on this plan.

This document is regularly updated to reflect changes to our content. This version was created on 18.10.24 and the most recent version can always be found here.



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There is an accompanying document: Progression of skills and knowledge — combined/ mixed-age which shows progression in these subjects.

Suggested long-term plan: A&D and D&T - Overview (EYFS and Key stage 1)

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 1/2 Cycle A	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: Smoothies (6 lessons)	Sculpture and 3D: Clay houses (5 lessons)	**Design and technology** Unit: Cooking and nutrition: Balanced diet (Lesson 1) **Art and design** Unit: Drawing: Tell a story (Lesson 2, 4 and /or 5)
Year 1/2 Cycle B	Structures: Baby bear's chair (4 lessons)	Craft and design: Map it out (5 lessons)	Mechanisms: Fairground wheel (5 lessons)	Painting and mixed media: Colour splash (5 lessons)	Mechanisms: Making a moving monster (4 lessons)	Painting and mixed media: Life in colour (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)

Suggested long-term plan: A&D and D&T - Overview (Key stage 2)

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	
Year 3/4 Cycle A	Digital world: Wearable technology (6 lessons)	Sculpture and 3D: Abstract shape and space (5 Lessons)	Cooking and nutrition: Eating seasonally (6 lessons)	Drawing: Growing artists (5 lessons)	Structures: Constructing a castle (4 lessons)	Drawing: Power prints (5 lessons)	**Design and technology** Unit: Cooking and nutrition: Adapting a recipe (Lesson 2) Unit: Textiles: Fastenings (Lesson 1) **Art and design** Unit: Sculpture and 3D: Mega materials (Lesson 1, 2 and/or 5)
Year 3/4 Cycle B	Structure: Pavilions (4 lessons)	Painting and mixed media: Light and dark (5 lessons)	Mechanical systems option 1: Mechanical cars (5 lessons) Mechanical systems option 2: Making a slingshot car (4 lessons)	Craft and design: Ancient Egyptian scrolls (5 lessons)	Electrical systems: Torches (4 lessons)	Craft and design: Fabric of nature (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)
Year 5/6 Cycle A	Electrical systems: Doodlers (4 lessons)	Drawing: I need space (5 lessons)	Mechanical systems option 1: Gears and pulleys (5 lessons) Mechanical systems option 2: Making a pop-up book (4 lessons)	Painting and mixed media: Portraits (5 lessons)	Cooking and nutrition: Developing a recipe (6 lessons)	Drawing: Make my voice heard (5 lessons)	**Art and design** Unit: Craft and design: Architecture (Lesson 3, 4 and/or 5)
Year 5/6 Cycle B	Textiles: Waistcoats (4 lessons)	Sculpture and 3D: Interactive installation (5 lessons)	Structure: Playgrounds (4 lessons)	Craft and design: Photo opportunity (5 lessons)	Digital world: Navigating the world (4 lessons)	Sculpture and 3D: Making memories - (5 lessons)	**Art and design** Unit: Painting and mixed media: Artist study (Lesson 1, 4 and/or 5)

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. Sometimes we have placed two units from the same area, such as Drawing, in the same cycle rather than spreading them out across the cycles. This is because it is important for pupil progression that they complete the units in the right order.

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)	Make (KS2)
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	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

Substantive knowledge

Practical

In order to make art with increasing proficiency, pupils need to develop practical knowledge in the following areas:

- Methods and techniques
- Media and materials
- Formal elements: Line, tone, shape, colour, form, pattern, texture.

In the Kapow Primary curriculum, this knowledge largely links to our **Making skills** strand.

Making skills (including formal elements)

Theoretical

Children gain knowledge of the history of art through our **Knowledge of artists** strand.

They consider the meanings and interpretations behind works of art that they study and explore artists' materials and processes.

Knowledge of artists

Disciplinary knowledge

Disciplinary

Disciplinary knowledge refers to the knowledge children acquire to help them understand the subject as a discipline. Pupils learn how art is studied, discussed and judged, considering our big questions:

What is art?
Why do people make art?
How do people talk about art?

In our scheme, the strand **Evaluating and analysing** covers this knowledge.

Evaluating and analysing

Generating ideas

Using sketchbooks

The three domains of knowledge, and the interplay between them, enable pupils to **generate ideas** and **use sketchbooks** to develop their own artistic identity.

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.

Oracy in Art and design and Design and technology

'Oracy is the ability to speak eloquently, to articulate ideas and thoughts, to influence through talking, to collaborate with peers and to express views confidently and appropriately.

Oracy refers both to the development of speaking and listening skills, and the effective use of spoken language in teaching and learning. It is to speech what literacy is to reading and writing, and numeracy is to Maths.'

Speak for Change: Final report and recommendations from the Oracy All-Party Parliamentary Group Inquiry.

Learning *through* talk

At Kapow Primary, we believe it's crucial to provide pupils with opportunities for exploratory talk during their learning. This involves thinking aloud, questioning, discussing, and collaboratively building ideas.

Learning *to* talk

Similarly, developing oracy skills is essential for pupils to express and articulate themselves effectively across various contexts and settings, including formal ones like public speaking, debates, and interviews.

Through our Art and design curriculum, pupils have opportunities to develop their oracy skills by:

- Explaining and justifying their choices of materials, methods, and techniques.
- Engaging in paired and group discussions.
- Presenting and explaining their artwork and ideas to peers and the class.
- Analysing and critiquing the work of others as well as established artists.
- Collaborating on group artwork.
- Responding to high-level questions such as 'What is art?' by articulating and defending their ideas.

Through our Design and technology curriculum, pupils have opportunities to develop their oracy skills by:

- Presenting their design ideas or products to audiences of different sizes.
- Explaining designs, preferences or final products.
- Role-playing from the point of view of the user.
- Discussing products and design ideas using new vocabulary.
- Collaborating by organising tasks within a group.
- Critiquing others' designs and products.
- Reflecting on and responding to feedback towards their own designs and products.
- Summarising design ideas.

	Reception
Autumn term	**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.
	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.
Spring term	**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.
	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.
Summer term	**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.
	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.

	Year 1/2 Cycle A	Year 1/2 Cycle B
Autumn term	**Structures: Constructing windmills** Construct a windmill to complete a request from a user. Develop an understanding of different types of windmill, how they work and their key features. Begin to use technical skills such as making evenly spaced cuts and adding weight to ensure a successful structure.	**Structures: Baby bear's chair** 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.
	Drawing: Make your mark Developing observational drawing skills when explorating 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.	**Craft and design: Map it out** 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.
Spring term	**Textiles: Puppets** 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.	**Mechanisms: Fairground wheel** Design and create a functional fairground wheel, consider how the different components fit together so that the wheel rotates and the structure stands freely. Select appropriate material properties and develop their cutting and joining skills. Research existing structures and survey to further inform the design.
	Sculpture and 3D: Paper play 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.	**Painting and mixed media: Colour splash** 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.
Summer term	Cooking and nutrition: **Smoothies** Handle and explore fruits and vegetables and learn how to identify fruit, before undertaking taste testing to establish chosen ingredients for a smoothie they will make, with accompanying packaging.	**Mechanisms: Making a moving monster** 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.
	Sculpture and 3D: Clay houses 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.	**Painting and mixed media: Life in colour** 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.

Suggested long-term plan: A&D and D&T - Outline (Lower KS2)

	Year 3/4 Cycle A	Year 3/4 Cycle B
Autumn term	**Cooking and nutrition: Eating seasonally** Pupils discover when and where fruits and vegetables are grown and learn about seasonality in the UK. They respond to a design brief to design a seasonal food tart using ingredients harvested in the UK in May and June.	**Structures: Pavilions** 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.
	Sculpture and 3D: Abstract shape and space 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.	**Painting and mixed media: Light and dark** 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.
Spring term	**Digital world: Wearable technology** 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.	**Mechanical systems option 1: Mechanical cars** Pupils build three prototype mechanical cars and select the best features to design their final product: a mechanical car kit. They create design criteria, conduct competitor market research and act as customers to provide feedback. **Mechanical systems option 2: Making a slingshot car** 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.
	Drawing: Growing artists 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.	**Craft and design: Ancient Egyptian scrolls** 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'.
Summer term	**Structures: Constructing a castle** 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.	**Electrical systems: Torches** Applying their scientific understanding of electrical circuits, children create a torch, designing and evaluating their product against set design criteria.
	Drawing: Power prints 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.	**Craft and design: Fabric of nature** 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.

	Year 5/6 Cycle A	Year 5/6 Cycle B
Autumn term	**Electrical systems: Doodlers** 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.	**Textiles: Waistcoats** Selecting suitable fabrics, using templates, pinning, decorating and stitching to create a waistcoat for a person or purpose of their choice.
	Drawing: I need space 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.	**Sculpture and 3D: Interactive installation** 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.
Spring term	**Mechanical systems option 1:** Gears and pulleys Investigate the history, mechanics, and uses of gears and pulleys. Construct a gear and pulley system and design an eco-bike that utilises energy from an exercise bike for practical work. **Mechanical systems option 2: Making a pop-up book** Creating a four-page pop-up storybook design incorporating a range of mechanisms and decorative features, including: structures, levers, sliders, layers and spacers.	**Structures: Playgrounds** 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.
	Painting and mixed media: Portraits 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.	**Craft and design: Photo opportunity** 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.
Summer term	**Cooking and nutrition: Developing a recipe** Research and modify a traditional bolognese sauce recipe to improve the nutritional value. Cook improved version and create packaging that fits design criteria. Learn about where beef comes from.	**Digital world: Navigating the world** 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.
	Drawing: Make my voice heard 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'.	**Sculpture and 3D: Making memories** Creating a personal memory box using a collection of found objects and hand-sculptured forms, reflecting primary school life with symbolic and personal meaning.

This page shows recent updates to this document.

Date	Update
21.03.23	Removed the 'Cooking and nutrition' strand from p.6. Cooking and nutrition is still covered as a key area in the Design and technology scheme.
14.06.23	Added information on Types of knowledge in Art and design on p.7.
28.08.23	Updated p.10 with refreshed Digital world unit: Wearable technology.
27.10.23	Updated Cooking and nutrition units to six lessons.
25.04.24	Updated statement on title page to make it clearer that you must subscribe to both Art and design and Design and technology subjects to have access to all the lessons on this plan.
12.07.24	Added information about oracy in Art and design (p. 8).
21.08.24	Updated to reflect refreshed units published on the website.
02.09.24	Updated links to reflect new unit published.
18.10.24	Updated links to reflect new unit published.