Stoneraise School Curriculum Statement

Subject: Art/DT **Subject Leader:** Clem Coady

Overarching Curriculum Statement

At Stoneraise School, our vision statement is, 'Living and learning together to care for each other and our world.' Our curriculum has been designed to focus the children's learning on this statement. We are based on the rural outskirts of the historic city of Carlisle and the majority of our pupils travel from local housing estates within the city. We try to make the very most of our beautiful surroundings at every opportunity. From Hadrian's Wall to the mountains of the Lake District, we ensure that our children gain an awe of the majestic landscape on our doorstep. Developing friendships, keeping ourselves safe and preparing our children to be the 'citizens of tomorrow' are all key parts of our curriculum as we follow the journey on our 'Pathway to Success'.

Our curriculum ensures excellent coverage of the National Curriculum (Years 1-6) and Foundation Stage Early Years Curriculum (Reception children). We have fully embraced the higher expectations set out in both curriculums and have devised our own units of work for each subject area so that we can ensure a sound progression of learning. We also have a core team of specialist teachers who are passionate about their curriculum area; these teachers work with different groups of children each year. Our team includes PE, music, art and computing specialists.

Our 'Sticky Knowledge' approach is used to help children to be aware of what they will learn through each unit or topic and help staff and pupils to make an assessment of what has been learned. We share key knowledge that we would like to 'stick' in the children's long term memory, present vital vocabulary they will come across to encourage the children to expand and develop their use of a wide range of words. Sticky notes (which include word banks, diagrams and other important information) are often used to support the children in the short term in their learning. Our curriculum in EYFS is on a rolling year plan, KS1 across two years and KS2 across their four years in the juniors (we have some mixed-age classes).

Subject Curriculum Statement

Art and Design Technology are an integral aspect of our curriculum. Children will gain early experiences of art and have opportunities to visit art galleries and museums to explore art and artists across cultures and throughout history.

Intent - Art

At Stoneraise School, the art and design scheme of work aims to inspire pupils and develop their confidence to experiment and invent their own works of art. Our scheme is written by experts in their field and designed to give pupils every opportunity to develop their ability, nurture their talent and interests, express their ideas and thoughts about the world, as well as learning about art and artists across cultures and through history.

Kapow Primary's Art and design scheme of work supports pupils to meet the national curriculum end of key stage attainment targets and has been written to fully cover the National Society for Education in Art and Design's progression competencies.

Intent – Design Technology

At Stoneraise School, the Design and technology scheme of work aims to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others. Through our scheme of work, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements.

Our Design and technology scheme of work enables pupils to meet the end of key stage attainment targets in the National curriculum and the aims also align with those in the National curriculum. EYFS (Reception) units provide opportunities for pupils' to work towards the Development matters statements and the Early Learning Goals.

Implementation - Art

At Stoneraise the scheme of work is designed with four strands that run throughout. These are:

- Generating Ideas
- Using Sketchbooks
- Managing skills, including formal elements (line, shape, tone, texture, pattern, colour)
- Knowledge of artists
- Evaluating and analysing

Units of lessons are sequential, allowing children to build their skills and knowledge, applying them to a range of outcomes. The formal elements, a key part of the national curriculum are also woven throughout units. Key skills are revisited again and again

with increasing complexity in a spiral curriculum model. This allows pupils to revise and build on their previous learning. Units in each year group are organised into four core areas:

- Drawing
- Painting
- Sculpture and 3D
- Craft and Design

Implementation – Design Technology

The Design and technology National curriculum outlines the three main stages of the design process: design, make and evaluate. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical, and technical understanding required for each strand. Cooking and nutrition* has a separate section, with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality.

The National curriculum organises the Design and technology attainment targets under five subheadings or strands:

- Design
- Make
- Evaluate
- Technical knowledge
- Cooking and nutrition*

Through our curriculum, pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in six key areas:

- Mechanisms
- Structures
- Textiles
- Food
- Electrical systems (KS2) ***and***
- Digital world (KS2)

Each of our key areas follows the design process (design, make and evaluate) and has a particular theme and focus from the technical knowledge or cooking and nutrition section of the curriculum. The Kapow Primary scheme is a spiral curriculum, with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.

Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks. This variety means that lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils' learning are available when required. Knowledge organisers for each unit support pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.

Scheme of Work Selection

At Stoneraise, we follow the Kapow scheme of work. The scheme of learning is used as a basis for teachers to tailor and adapt to the needs of our pupils. Some content will be streamlined dependent on the individual needs of the class. At other times teachers may choose to take longer to cover a subject or topic area that pupils are finding challenging or that are more specific to the individual needs of the class at that time.

CPD and Training

- Teachers have access to the CPD from the Kapow website
- Regular in-house training is provided by the Subject Leader
- Resources from the EEF toolkit are used to ensure good practice is being delivered in classes
- EEF research has been used as a basis of INSET days

Assessment Strategy

- Formative assessment strategies include:
    - Regular quizzes (Kahoot!, Google Forms, Quizziz)
    - Review of work completed in class
    - Questioning within class
- Summative assessment results are input into our tracking system (Insight Tracking) where school leaders are able to analyse the data. This data is shared with the following class teacher to ensure children who have gaps in their learning can have additional pre learning tasks.

Inclusive Curriculum

At Stoneraise School, we believe that every child can make progress and achieve. We ensure that our curriculum and the teaching and learning opportunities provided meet the needs of all of our pupils. We respond to pupils' diverse learning needs, and seek to identify potential barriers to learning quickly. We support parents through EHCP needs assessments and work closely with specialist teachers to ensure our curriculum is accessible. Targeted support through our Assess Plan Do Review cycle and resources are then used to ensure all pupils are engaged and confident learners. Pupils with SEND are monitored regularly and communication between pupils, parents, staff and external specialists underpins their success.

The role of governors

Our governors determine, support, monitor and review the school's approach to teaching and learning. In particular they:

- support the use of appropriate teaching strategies by allocating resources effectively;
- ensure that the school buildings and premises are used optimally to support teaching and learning;
- check teaching methods in the light of health and safety regulations;
- seek to ensure that our staff development and our performance management
    - both promote good-quality teaching;
- monitor the effectiveness of the school's teaching and learning approaches
    - through the school's self-review processes, which include reports from the headteacher, senior leaders and subject leaders, and a review of the continuing professional development of staff.

Monitoring and review of this curriculum document

Senior leaders monitor the school's curriculum planning and implementation so that we can take account of new initiatives, research or any changes in the curriculum. We will therefore review this policy every three years or sooner if required.

Long Term Plan

Our Curriculum is broken down into topics across each year. The following topic overview is guidance only and whilst all the topics will be delivered across the year, they may be delivered in a different order to suit the thematic approach of the class.

	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	Year 2
Autumn term	**Structures: Constructing windmills** 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.	**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.
	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.	**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.
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.	**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.
	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.	**Mechanisms: Fairground wheel** 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
Summer term	**Cooking and nutrition: Fruit and vegetables** 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.	**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: 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.	**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.

	Year 3	Year 4
Autumn term	**Cooking and nutrition: Eating seasonally** 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.	**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.
	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.	**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.
Spring term	**Digital world: Electronic charm** Designing, coding, making and promoting a Micro:bit electronic charm to use in low-light conditions. Children develop their understanding of programming to monitor and control their products.	**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.
	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'.	**Mechanical systems: 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.
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.	**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.
	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.	**Electrical systems: Torches** Applying their scientific understanding of electrical circuits, children create a torch, designing and evaluating their product against set design criteria.

	Year 5	Year 6
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.	**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.
	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.	**Textiles: Waistcoats** Selecting suitable fabrics, using templates, pinning, decorating and stitching to create a waistcoat for a person or purpose of their choice.
Spring term	**Mechanical systems: 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.	**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'.
	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.	**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.
Summer term	**Cooking and nutrition: What could be healthier?** 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.	**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.
	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.	**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.

Curriculum Progression Map

Progression of skills

Drawing

	EYFS (Reception) Marvellous marks	Year 1 Make your mark	Year 2 Tell a story	Year 3 Growing artists
Generating ideas	Talk about their ideas and explore different ways to record them.	Explore their own ideas using a range of media.	Begin to generate ideas from a wider range of stimuli, exploring different media and techniques.	Generate ideas from a range of stimuli and carry out simple research and evaluation as part of the making process.
Sketch-books	Experiment with mark making in an exploratory way.	Use sketchbooks to explore ideas in an open-ended way.	Experiment in sketchbooks, using drawing to record ideas. Use sketchbooks to help make decisions about what to try out next.	Use sketchbooks for a wider range of purposes, for example recording things using drawing and annotations, planning and taking next steps in a making process.
Making skills (including Formal elements)	Use a range of drawing materials such as pencils, chalk, felt tips and wax crayons. Work on a range of materials of different textures (eg. playground, bark). Begin to develop observational skills by using mirrors to include the main features of faces in their drawings.	Use a range of drawing materials such as pencils, chalk, charcoal, pastels, felt tips and pens. Develop observational skills to look closely and reflect surface texture through mark-making. To explore mark making using a range of tools; being able to create a diverse and purposeful range of marks through experimentation building skills and vocabulary.	Further develop mark-making within a greater range of media, demonstrating increased control. Develop observational skills to look closely and reflect surface texture through mark-making. Experiment with drawing on different surfaces, and begin to explore tone using a variety of pencil grade (HB, 2B, 4B) to show form, drawing light/dark lines, patterns and shapes.	Confidently use of a range of materials, selecting and using these appropriately with more independence. Draw with expression and begin to experiment with gestural and quick sketching. Developing drawing through further direct observation, using tonal shading and starting to apply an understanding of shape to communicate form and proportion.
Knowledge of artists	Enjoy looking at and talking about art.	Describe similarities and differences between practices in Art and design, eg between painting and sculpture, and link these to their own work.	Talk about art they have seen using some appropriate subject vocabulary. Be able to make links between pieces of art.	Use subject vocabulary to describe and compare creative works. Use their own experiences to explain how art works may have been made.
Evaluating and analysing	Talk about their artwork, stating what they feel they did well.	Describe and compare features of their own and other's art work.	Explain their ideas and opinions about their own and other's art work, giving reasons. Begin to talk about how they could improve their own work.	Confidently explain their ideas and opinions about their own and other's art work, giving reasons. Use sketchbooks as part of the problem-solving process and make changes to improve their work.

Progression of skills

Drawing

	Year 4 Power prints	Year 5 I need space	Year 6 Make my voice heard
Generating ideas	Generate ideas from a range of stimuli, using research and evaluation of techniques to develop their ideas and plan more purposefully for an outcome.	Develop ideas more independently from their own research. Explore and record their plans, ideas and evaluations to develop their ideas towards an outcome.	Draw upon their experience of creative work and their research to develop their own starting points for creative outcomes.
Sketchbooks	Use sketchbooks purposefully to improve understanding, develop ideas and plan for an outcome.	Confidently use sketchbooks for purposes including recording observations and research, testing materials and working towards an outcome more independently.	Using a systematic and independent approach, research, test and develop ideas and plans using sketchbooks.
Making skills (including Formal elements)	Apply observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style. Use growing knowledge of different drawing materials, combining media for effect. Demonstrate greater control over drawing tools to show awareness of proportion and continuing to develop use of tone and more intricate mark making.	To use a broader range of stimulus to draw from, such as architecture, culture and photography. Begin to develop drawn ideas as part of an exploratory journey. Apply known techniques with a range of media, selecting these independently in response to a stimulus. Draw in a more sustained way, revisiting a drawing over time and applying their understanding of tone, texture, line, colour and form.	Draw expressively in their own personal style and in response to their choice of stimulus, showing the ability to develop a drawing independently. Apply new drawing techniques to improve their mastery of materials and techniques. Push the boundaries of mark-making to explore new surfaces, e.g. drawing on clay, layering media and incorporating digital drawing techniques.
Knowledge of artists	Use subject vocabulary confidently to describe and compare creative works. Use their own experiences of techniques and making processes to explain how art works may have been made.	Research and discuss the ideas and approaches of artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.	Describe, interpret and evaluate the work, ideas and processes used by artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.
Evaluating and analysing	Build a more complex vocabulary when discussing their own and others' art. Evaluate their work more regularly and independently during the planning and making process.	Discuss the processes used by themselves and by other artists, and describe the particular outcome achieved. Use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.	Give reasoned evaluations of their own and others work which takes account of context and intention. Independently use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.

Progression of skills

Painting and mixed media

	EYFS (Reception) Paint my world	Year 1 Colour splash	Year 2 Life in colour	Year 3 Prehistoric painting
Generating ideas	Explore different ways to use paint and a range of media according to their interests and ideas.	Explore their own ideas using a range of media.	Begin to generate ideas from a wider range of stimuli, exploring different media and techniques.	Generate ideas from a range of stimuli and carry out simple research and evaluation as part of the making process.
Sketch-books	N/A	Use sketchbooks to explore ideas in an open-ended way.	Experiment in sketchbooks, using drawing to record ideas. Use sketchbooks to help make decisions about what to try out next.	Use sketchbooks for a wider range of purposes, for example recording things using drawing and annotations, planning and taking next steps in a making process.
Making skills (including Formal elements)	Explore paint including different application methods (fingers, splatter, natural materials, paintbrushes.) Use different forms of 'paint' such as mud and puddles, creating a range of artwork both abstract and figurative. Use mixed-media scraps to create child-led artwork with no specific outcome.	Experiment with paint, using a wide variety of tools (eg brushes, sponges, fingers) to apply paint to a range of different surfaces. Begin to explore colour mixing. Play with combinations of materials to create simple collage effects. Select materials based on their properties, *eg shiny, soft.*	Begin to develop some control when painting, applying knowledge of colour and how different media behave eg adding water to thin paint, using different tools to create texture. Create a range of secondary colours by using different amounts of each starting colour or adding water. Make choices about which materials to use for collage based on colour, texture, shape and pattern. Experiment with overlapping and layering materials to create interesting effects.	Select and use a variety of painting techniques, including applying their drawing skills, using their knowledge of colour mixing and making choices about suitable tools for a task eg choosing a fine paintbrush for making detailed marks. Mix colours with greater accuracy and begin to consider how colours can be used expressively. Modify chosen collage materials in a range of ways eg by cutting, tearing, re-sizing or overlapping. In sketchbooks, use collage as a means of collecting ideas.
Knowledge of artists	Enjoy looking at and talking about art.	Describe similarities and differences between practices in Art and design, eg between painting and sculpture, and link these to their own work.	Talk about art they have seen using some appropriate subject vocabulary. Be able to make links between pieces of art.	Use subject vocabulary to describe and compare creative works. Use their own experiences to explain how artworks may have been made.
Evaluating and analysing	Talk about their artwork, stating what they feel they did well.	Describe and compare features of their own and other's art work.	Explain their ideas and opinions about their own and other's art work, giving reasons. Begin to talk about how they could improve their own work.	Confidently explain their ideas and opinions about their own and other's art work, giving reasons. Use sketchbooks as part of the problem-solving process and make changes to improve their work.

Progression of skills

Painting and mixed media

	Year 4 Light and dark	Year 5 Portraits	Year 6 Artist study
Generating ideas	Generate ideas from a range of stimuli, using research and evaluation of techniques to develop their ideas and plan more purposefully for an outcome.	Develop ideas more independently from their own research. Explore and record their plans, ideas and evaluations to develop their ideas towards an outcome.	Draw upon their experience of creative work and their research to develop their own starting points for creative outcomes.
Sketchbooks	Use sketchbooks purposefully to improve understanding, develop ideas and plan for an outcome.	Confidently use sketchbooks for purposes including recording observations and research, testing materials and working towards an outcome more independently.	Using a systematic and independent approach, research, test and develop ideas and plans using sketchbooks.
Making skills (including Formal elements)	Explore the way paint can be used in different ways to create a variety of effects, eg creating a range of marks and textures in paint. Develop greater skill and control when using paint to depict forms, eg beginning to use tone by mixing tints and shades of colours to create 3D effects. Work selectively, choosing and adapting collage materials to create contrast and considering overall composition.	Apply paint with control in different ways to achieve different effects, experimenting with techniques used by other artists and applying ideas to their own artworks eg making choices about painting surfaces or mixing paint with other materials. Develop a painting from a drawing or other initial stimulus. Explore how collage can extend original ideas. Combine a wider range of media, eg photography and digital art effects.	Manipulate paint and painting techniques to suit a purpose, making choices based on their experiences. Work in a sustained way over several sessions to complete a piece. Analyse and describe the elements of other artists' work, e.g. the effect of colour or composition. Consider materials, scale and techniques when creating collage and other mixed media pieces. Create collage in response to a stimulus. Work collaboratively on a larger scale.
Knowledge of artists	Use subject vocabulary confidently to describe and compare creative works. Use their own experiences of techniques and making processes to explain how art works may have been made.	Research and discuss the ideas and approaches of artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.	Describe, interpret and evaluate the work, ideas and processes used by artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.
Evaluating and analysing	Build a more complex vocabulary when discussing their own and others' art. Evaluate their work more regularly and independently during the planning and making process.	Discuss the processes used by themselves and by other artists, and describe the particular outcome achieved. Use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.	Give reasoned evaluations of their own and others work which takes account of context and intention. Independently use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.

Progression of skills

Sculpture and 3D

	EYFS (Reception) Creation station	Year 1 Paper play	Year 2 Clay houses	Year 3 Abstract shape and space
Generating ideas	Explore and play with clay and playdough to make child-led creations.	Explore their own ideas using a range of media.	Begin to generate ideas from a wider range of stimuli, exploring different media and techniques.	Generate ideas from a range of stimuli and carry out simple research and evaluation as part of the making process.
Sketch-books	N/A	Use sketchbooks to explore ideas in an open-ended way.	Experiment in sketchbooks, using drawing to record ideas. Use sketchbooks to help make decisions about what to try out next.	Use sketchbooks for a wider range of purposes, for example recording things using drawing and annotations, planning and taking next steps in a making process.
Making skills (including Formal elements)	Push, pull and twist a range of modelling materials to affect the shape. Create child-led 3D forms from natural materials. Join materials in different ways e.g. using sticky tape to attach materials, making simple joins when modelling with playdough.	Use their hands to manipulate a range of modelling materials, including paper and card.. Explore how to join and fix materials in place. Create 3D forms to make things from their imagination or recreate things they have seen.	Develop understanding of sculpture to construct and model simple forms. Use hands and tools with confidence when cutting, shaping and joining paper, card and malleable materials. Develop basic skills for shaping and joining clay, including exploring surface texture..	Able to plan and think through the making process to create 3D forms. Shape materials for a purpose, positioning and joining materials in new ways (tie, slot, stick, fold, tabs). Explore how shapes can be used to create abstract artworks in 3D.
Knowledge of artists	Enjoy looking at and talking about art.	Describe similarities and differences between practices in Art and design, eg between painting and sculpture, and link these to their own work.	Talk about art they have seen using some appropriate subject vocabulary. Be able to make links between pieces of art.	Use subject vocabulary to describe and compare creative works. Use their own experiences to explain how art works may have been made.
Evaluating and analysing	Talk about their artwork, stating what they feel they did well.	Describe and compare features of their own and other's art work.	Explain their ideas and opinions about their own and other's art work, giving reasons. Begin to talk about how they could improve their own work.	Confidently explain their ideas and opinions about their own and other's art work, giving reasons. Use sketchbooks as part of the problem-solving process and make changes to improve their work.

Progression of skills

Sculpture and 3D

	Year 4 Mega materials	Year 5 Interactive installation	Year 6 Making memories
Generating ideas	Generate ideas from a range of stimuli, using research and evaluation of techniques to develop their ideas and plan more purposefully for an outcome.	Develop ideas more independently from their own research. Explore and record their plans, ideas and evaluations to develop their ideas towards an outcome.	Draw upon their experience of creative work and their research to develop their own starting points for creative outcomes.
Sketchbooks	Use sketchbooks purposefully to improve understanding, develop ideas and plan for an outcome.	Confidently use sketchbooks for purposes including recording observations and research, testing materials and working towards an outcome more independently.	Using a systematic and independent approach, research, test and develop ideas and plans using sketchbooks.
Making skills (including Formal elements)	Explore how different materials can be shaped and joined, using more complex techniques such as carving and modelling wire. Show an understanding of appropriate finish and present work to a good standard. Respond to a stimulus and begin to make choices about materials and techniques used to work in 3D.	Investigate how scale, display location and interactive elements impact 3D art. Plan a 3D artwork to communicate a concept, developing an idea in 2D into three-dimensions. Persevere when constructions are challenging and work to problem solve more independently.	Uses personal plans and ideas to design and construct more complex sculptures and 3D forms. Combine materials and techniques appropriately to fit with ideas. Confidently problem-solve, edit and refine to create desired effects and end results.
Knowledge of artists	Use subject vocabulary confidently to describe and compare creative works. Use their own experiences of techniques and making processes to explain how art works may have been made.	Research and discuss the ideas and approaches of artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.	Describe, interpret and evaluate the work, ideas and processes used by artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.
Evaluating and analysing	Build a more complex vocabulary when discussing their own and others' art. Evaluate their work more regularly and independently during the planning and making process.	Discuss the processes used by themselves and by other artists, and describe the particular outcome achieved. Use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.	Give reasoned evaluations of their own and others work which takes account of context and intention. Independently use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.

Progression of skills

Craft and design

	EYFS (Reception) Let's get crafty!	Year 1 Woven wonders	Year 2 Map it out	Year 3 Ancient Egyptian scrolls
Generating ideas	Explore and play with a range of media to make child-led creations.	Explore their own ideas using a range of media.	Begin to generate ideas from a wider range of stimuli, exploring different media and techniques.	Generate ideas from a range of stimuli and carry out simple research and evaluation as part of the making process.
Sketch-books	N/A	Use sketchbooks to explore ideas in an open-ended way.	Experiment in sketchbooks, using drawing to record ideas. Use sketchbooks to help make decisions about what to try out next.	Use sketchbooks for a wider range of purposes, for example recording things using drawing and annotations, planning and taking next steps in a making process.
Making skills (including Formal elements)	Design something and stick to the plan when making. Cut, thread, join and manipulate materials with instruction and support, focusing on process over outcome.	Able to select materials, colours and textures to suit ideas and purposes. Begin to develop skills such as measuring materials, cutting, knotting, plaiting, weaving and adding decoration. Apply knowledge of a new craft technique to make fibre art.	Respond to a simple design brief with a range of ideas. Apply skills in cutting, arranging and joining a range of materials to include card, felt and cellophane. Follow a plan for a making process, modifying and correcting things and knowing when to seek advice.	Learn a new making technique (paper making) and apply it as part of their own project. Investigate the history of a craft technique and share that knowledge in a personal way. Design and make creative work for different purposes, evaluating the success of the techniques used.
Knowledge of artists	Enjoy looking at and talking about art.	Describe similarities and differences between practices in Art and design, eg between painting and sculpture, and link these to their own work.	Talk about art they have seen using some appropriate subject vocabulary. Be able to make links between pieces of art.	Use subject vocabulary to describe and compare creative works. Use their own experiences to explain how art works may have been made.
Evaluating and analysing	Talk about their artwork, stating what they feel they did well.	Describe and compare features of their own and other's art work.	Explain their ideas and opinions about their own and other's art work, giving reasons. Begin to talk about how they could improve their own work.	Confidently explain their ideas and opinions about their own and other's art work, giving reasons. Use sketchbooks as part of the problem-solving process and make changes to improve their work.

Progression of skills

Craft and design

	Year 4 Fabric of nature	Year 5 Architecture	Year 6 Photo opportunity
Generating ideas	Generate ideas from a range of stimuli, using research and evaluation of techniques to develop their ideas and plan more purposefully for an outcome.	Develop ideas more independently from their own research. Explore and record their plans, ideas and evaluations to develop their ideas towards an outcome.	Draw upon their experience of creative work and their research to develop their own starting points for creative outcomes.
Sketchbooks	Use sketchbooks purposefully to improve understanding, develop ideas and plan for an outcome.	Confidently use sketchbooks for purposes including recording observations and research, testing materials and working towards an outcome more independently.	Using a systematic and independent approach, research, test and develop ideas and plans using sketchbooks.
Making skills (including Formal elements)	Learn new making techniques, comparing these and making decisions about which method to use to achieve a particular outcome. Design and make art for different purposes and begin to consider how this works in creative industries. Follow a design process from mood-board inspiration to textile creation, planning how a pattern could be used in a real-world context.	Design and make art for different purposes and begin to consider how this works in creative industries e.g. in architecture, magazines, logos, digital media and interior design. Extend ideas for designs through sketchbook use and research, justifying choices made during the design process.	Develop personal, imaginative responses to a design brief, using sketchbooks and independent research. Justify choices made during a design process, explaining how the work of creative practitioners have influence their final outcome.
Knowledge of artists	Use subject vocabulary confidently to describe and compare creative works. Use their own experiences of techniques and making processes to explain how art works may have been made.	Research and discuss the ideas and approaches of artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.	Describe, interpret and evaluate the work, ideas and processes used by artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.
Evaluating and analysing	Build a more complex vocabulary when discussing their own and others' art. Evaluate their work more regularly and independently during the planning and making process.	Discuss the processes used by themselves and by other artists, and describe the particular outcome achieved. Use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.	Give reasoned evaluations of their own and others work which takes account of context and intention. Independently use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.

Progression of skills and knowledge

Structures

EYFS (Reception)

		Junk modelling	Boats
Skills	Design	• Making verbal plans and material choices. • Developing a junk model.	• Designing a junk model boat. • Using knowledge from exploration to inform design.
	Make	• Improving fine motor/scissor skills with a variety of materials. • Joining materials in a variety of ways (temporary and permanent). • Joining different materials together. • Describing their junk model, and how they intend to put it together.	• Making a boat that floats and is waterproof, considering material choices.
	Evaluate	• Giving a verbal evaluation of their own and others' junk models with adult support. • Checking to see if their model matches their plan. • Considering what they would do differently if they were to do it again. • Describing their favourite and least favourite part of their model.	• Making predictions about, and evaluating different materials to see if they are waterproof. • Making predictions about, and evaluating existing boats to see which floats best. • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves.
Knowledge	Technical	• To know there are a range to different materials that can be used to make a model and that they are all slightly different. • Making simple suggestions to fix their junk model.	• To know that 'waterproof' materials are those which do not absorb water.
	Additional		• To know that some objects float and others sink. • To know the different parts of a boat.

Progression of skills and knowledge

Structures

		Year 1	Year 2
		Constructing a windmill	Baby bear's chair
Skills	Design	• Learning the importance of a clear design criteria. • Including individual preferences and requirements in a design.	• Generating and communicating ideas using sketching and modelling. • Learning about different types of structures, found in the natural world and in everyday objects.
	Make	• Making stable structures from card, tape and glue. • Learning how to turn 2D nets into 3D structures. • Following instructions to cut and assemble the supporting structure of a windmill. • Making functioning turbines and axles which are assembled into a main supporting structure.	• Making a structure according to design criteria. • Creating joints and structures from paper/card and tape. • Building a strong and stiff structure by folding paper.
	Evaluate	• Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't • Suggest points for improvements	• Exploring the features of structures. • Comparing the stability of different shapes. • Testing the strength of own structures. • Identifying the weakest part of a structure. • Evaluating the strength, stiffness and stability of own structure.
Knowledge	Technical	• To understand that the shape of materials can be changed to improve the strength and stiffness of structures. • To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). • To understand that axles are used in structures and mechanisms to make parts turn in a circle. • To begin to understand that different structures are used for different purposes. • To know that a structure is something that has been made and put together.	• To know that shapes and structures with wide, flat bases or legs are the most stable. • To understand that the shape of a structure affects its strength. • To know that materials can be manipulated to improve strength and stiffness. • To know that a structure is something which has been formed or made from parts. • To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move. • To know that a 'strong' structure is one which does not break easily. • To know that a 'stiff' structure or material is one which does not bend easily.
	Additional	• To know that a client is the person I am designing for. • To know that design criteria is a list of points to ensure the product meets the clients needs and wants. • To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity. • To know that windmill turbines use wind to turn and make the machines inside work. • To know that a windmill is a structure with sails that are moved by the wind. • To know the three main parts of a windmill are the turbine, axle and structure.	• To know that natural structures are those found in nature. • To know that man-made structures are those made by people.

Progression of skills and knowledge

Structures

		Year 3	Year 4
		Constructing a castle	Pavilions
Skills	Design	• Designing a castle with key features to appeal to a specific person/purpose. • Drawing and labelling a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours. • Designing and/or decorating a castle tower on CAD software.	• Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect. • Building frame structures designed to support weight.
	Make	• Constructing a range of 3D geometric shapes using nets. • Creating special features for individual designs. • Making facades from a range of recycled materials.	• Creating a range of different shaped frame structures. • Making a variety of free standing frame structures of different shapes and sizes. • Selecting appropriate materials to build a strong structure and cladding. • Reinforcing corners to strengthen a structure. • Creating a design in accordance with a plan. • Learning to create different textural effects with materials.
	Evaluate	• Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design. • Suggesting points for modification of the individual designs.	•Evaluating structures made by the class. • Describing what characteristics of a design and construction made it the most effective. • Considering effective and ineffective designs.
Knowledge	Technical	• To understand that wide and flat based objects are more stable. • To understand the importance of strength and stiffness in structures.	• To understand what a frame structure is. • To know that a 'free-standing' structure is one which can stand on its own.
	Additional	• To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose. • To know that a façade is the front of a structure. • To understand that a castle needed to be strong and stable to withstand enemy attack. • To know that a paper net is a flat 2D shape that can become a 3D shape once assembled. • To know that a design specification is a list of success criteria for a product.	• To know that a pavilion is a a decorative building or structure for leisure activities. • To know that cladding can be applied to structures for different effects. • To know that aesthetics are how a product looks. • To know that a product's function means its purpose. • To understand that the target audience means the person or group of people a product is designed for. • To know that architects consider light, shadow and patterns when designing.

Progression of skills and knowledge

Structures

Year 6

Playgrounds

Skills	Design	• Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs.
	Make	• Building a range of play apparatus structures drawing upon new and prior knowledge of structures. • Measuring, marking and cutting wood to create a range of structures. • Using a range of materials to reinforce and add decoration to structures.
	Evaluate	• Improving a design plan based on peer evaluation. • Testing and adapting a design to improve it as it is developed. • Identifying what makes a successful structure.
Knowledge	Technical	• To know that structures can be strengthened by manipulating materials and shapes.
	Additional	• To understand what a 'footprint plan' is. • To understand that in the real world, design , can impact users in positive and negative ways. • To know that a prototype is a cheap model to test a design idea.

Progression of skills and knowledge

Mechanisms / mechanical systems

		Year 2	
		[Fairground wheel]	[Making a moving monster]
Skills	Design	• Selecting a suitable linkage system to produce the desired motion. • Designing a wheel.	• Creating a class design criteria for a moving monster. • Designing a moving monster for a specific audience in accordance with a design criteria.
	Make	• Selecting materials according to their characteristics. • Following a design brief.	• Making linkages using card for levers and split pins for pivots. • Experimenting with linkages adjusting the widths, lengths and thicknesses of card used. • Cutting and assembling components neatly.
	Evaluate	• Evaluating different designs. • Testing and adapting a design.	• Evaluating own designs against design criteria. • Using peer feedback to modify a final design.
Knowledge	Technical	• To know that different materials have different properties and are therefore suitable for different uses.	• To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. • To know that there is always an input and output in a mechanism. • To know that an input is the energy that is used to start something working. • To know that an output is the movement that happens as a result of the input. • To know that a lever is something that turns on a pivot. • To know that a linkage mechanism is made up of a series of levers.
	Additional	• To know the features of a ferris wheel include the wheel, frame, pods, a base an axle and an axle holder. • To know that it is important to test my design as I go along so that I can solve any problems that may occur.	• To know some real-life objects that contain mechanisms.

Progression of skills and knowledge

Mechanisms / mechanical systems

		Year 4	Year 5
		Making a slingshot car	Making a pop up book
Skills	Design	• Designing a shape that reduces air resistance. • Drawing a net to create a structure from. • Choosing shapes that increase or decrease speed as a result of air resistance. • Personalising a design.	• Designing a pop-up book which uses a mixture of structures and mechanisms. • Naming each mechanism, input and output accurately. • Storyboarding ideas for a book.
	Make	• Measuring, marking, cutting and assembling with increasing accuracy. • Making a model based on a chosen design.	• Following a design brief to make a pop up book, neatly and with focus on accuracy. • Making mechanisms and/or structures using sliders, pivots and folds to produce movement. • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.
	Evaluate	• Evaluating the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance.	• Evaluating the work of others and receiving feedback on own work. • Suggesting points for improvement.
Knowledge	Technical	• To understand that all moving things have kinetic energy. • To understand that kinetic energy is the energy that something (object/person) has by being in motion. • To know that air resistance is the level of drag on an object as it is forced through the air. • To understand that the shape of a moving object will affect how it moves due to air resistance.	• To know that mechanisms control movement. • To understand that mechanisms can be used to change one kind of motion into another. • To understand how to use sliders, pivots and folds to create paper-based mechanisms.
	Additional	• To understand that products change and evolve over time. • To know that aesthetics means how an object or product looks in design and technology. • To know that a template is a stencil you can use to help you draw the same shape accurately. • To know that a birds-eye view means a view from a high angle (as if a bird in flight). • To know that graphics are images which are designed to explain or advertise something. •To know that it is important to assess and evaluate design ideas and models against a list of design criteria.	• To know that a design brief is a description of what I am going to design and make. • To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.

Progression of skills and knowledge		Electrical systems (KS2 only)	
		Year 4	Year 5
		Torches	Doodlers
Skills	Design	• Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas.	• Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. • Developing design criteria based on findings from investigating existing products. • Developing design criteria that clarifies the target user.
	Make	• Making a torch with a working electrical circuit and switch. • Using appropriate equipment to cut and attach materials. • Assembling a torch according to the design and success criteria.	• Altering a product's form and function by tinkering with its configuration. • Making a functional series circuit, incorporating a motor. • Constructing a product with consideration for the design criteria. • Breaking down the construction process into steps so that others can make the product.
	Evaluate	• Evaluating electrical products. • Testing and evaluating the success of a final product.	• Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. • Determining which parts of a product affect its function and which parts affect its form. • Analysing whether changes in configuration positively or negatively affect an existing product. • Peer evaluating a set of instructions to build a product.
Knowledge	Technical	• To understand that electrical conductors are materials which electricity can pass through. • To understand that electrical insulators are materials which electricity cannot pass through. • To know that a battery contains stored electricity that can be used to power products. • To know that an electrical circuit must be complete for electricity to flow. • To know that a switch can be used to complete and break an electrical circuit.	• To know that series circuits only have one direction for the electricity to flow. • To know when there is a break in a series circuit, all components turn off. • To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. • To know a motorised product is one which uses a motor to function.
	Additional	• To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. • To know facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison.	• To know that product analysis is critiquing the strengths and weaknesses of a product. • To know that 'configuration' means how the parts of a product are arranged.

Progression of skills and knowledge

Cooking and nutrition

		Year 1	Year 3
		Fruit and vegetables	Eating seasonally
Skills	Design	• Designing smoothie carton packaging by-hand or on ICT software.	• Creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish.
	Make	• Chopping fruit and vegetables safely to make a smoothie. • Identifying if a food is a fruit or a vegetable. • Learning where and how fruits and vegetables grow.	• Knowing how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination. • Following the instructions within a recipe.
	Evaluate	• Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging.	• Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a seasonal tart.
Knowledge	Cooking and nutrition	• Understanding the difference between fruits and vegetables. • To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber). • To know that a blender is a machine which mixes ingredients together into a smooth liquid. • To know that a fruit has seeds and a vegetable does not. • To know that fruits grow on trees or vines. • To know that vegetables can grow either above or below ground. • To know that vegetables can come from different parts of the plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).	• To know that not all fruits and vegetables can be grown in the UK. • To know that climate affects food growth. • To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a 'recipe'. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country.. • To understand that imported foods travel from far away and this can negatively impact the environment. • To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre. • To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health. • To know safety rules for using, storing and cleaning a knife safely. • To know that similar coloured fruits and vegetables often have similar nutritional benefits.

Progression of skills and knowledge

Cooking and nutrition

		Year 5
		What could be healthier?
Skills	**Design**	• Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. • Writing an amended method for a recipe to incorporate the relevant changes to ingredients. • Designing appealing packaging to reflect a recipe.
	Make	• Cutting and preparing vegetables safely. • Using equipment safely, including knives, hot pans and hobs. • Knowing how to avoid cross-contamination. • Following a step by step method carefully to make a recipe.
	Evaluate	• Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups.
Knowledge	**Cooking and nutrition**	• To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues. • To know that I can adapt a recipe to make it healthier by substituting ingredients. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.

Progression of skills and knowledge

Textiles

		EYFS: Reception	Year 1	Year 6
		Bookmarks	Puppets	Waistcoats
Skills	Design	• Discussing what a good design needs. • Designing a simple pattern with paper. • Designing a bookmark. • Choosing from available materials.	• Using a template to create a design for a puppet.	• Designing a waistcoat in accordance to a specification linked to set of design criteria. • Annotating designs, to explain their decisions.
	Make	• Developing fine motor/cutting skills with scissors. • Exploring fine motor/threading and weaving (under, over technique) with a variety of materials. • Using a prepared needle and wool to practise threading.	• Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing the steps taken during construction.	• Using a template when cutting fabric to ensure they achieve the correct shape. • Using pins effectively to secure a template to fabric without creases or bulges. • Marking and cutting fabric accurately, in accordance with their design. • Sewing a strong running stitch, making small, neat stitches and following the edge. • Tying strong knots. • Decorating a waistcoat, attaching features (such as appliqué) using thread. • Finishing the waistcoat with a secure fastening (such as buttons). • Learning different decorative stitches. • Sewing accurately with evenly spaced, neat stitches.
	Evaluate	• Reflecting on a finished product and comparing to their design.	• Reflecting on a finished product, explaining likes and dislikes.	• Reflecting on their work continually throughout the design, make and evaluate process.
Knowledge		• To know that a design is a way of planning our idea before we start. • To know that threading is putting one material through an object.	• To know that 'joining technique' means connecting two pieces of material together. • To know that there are various temporary methods of joining fabric by using staples. glue or pins. • To understand that different techniques for joining materials can be used for different purposes. • To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. • To know that drawing a design idea is useful to see how an idea will look.	• To understand that it is important to design clothing with the client/ target customer in mind. • To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric. • To understand the importance of consistently sized stitches.

Progression of skills and knowledge

Digital world (KS2 only)

		Year 3	Year 6
		Electronic charm	Navigating the world
Skills	Design	• Problem solving by suggesting potential features on a Micro: bit and justifying my ideas • Developing design ideas for a technology pouch • Drawing and manipulating 2D shapes, using computer-aided design, to produce a point of sale badge	• Writing a design brief from information submitted by a client • Developing design criteria to fulfil the client's request • Considering and suggesting additional functions for my navigation tool • Developing a product idea through annotated sketches • Placing and manoeuvring 3D objects, using CAD • Changing the properties of, or combine one or more 3D objects, using CAD
	Make	• Using a template when cutting and assembling the pouch • Following a list of design requirements • Selecting and using the appropriate tools and equipment for cutting, joining, shaping and decorating a foam pouch • Applying functional features such as using foam to create soft buttons	• Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo) • Explaining material choices and why they were chosen as part of a product concept • Programming an N,E, S,W cardinal compass
	Evaluate	• Analysing and evaluating an existing product • Identifying the key features of a pouch	• Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool • Developing an awareness of sustainable design • Identifying key industries that utilise 3D CAD modelling and explain why • Describing how the product concept fits the client's request and how it will benefit the customers • Explaining the key functions in my program, including any additions • Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool • Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch • Demonstrating a functional program as part of a product concept
Knowledge	Technical	• To understand that in programming a 'loop' is code that repeats something again and again until stopped • To know that a Micro:bit is a pocket-sized, codeable computer • Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm	• To know that accelerometers can detect movement • To understand that sensors can be useful in products as they mean the product can function without human input
	Additional	•To know what the 'Digital Revolution' is and features of some of the products that have evolved as a result •To know that in Design and technology the term 'smart' means a programmed product •To know the difference between analogue and digital technologies • To understand what is meant by 'point of sale display' • To know that CAD stands for Computer-aided design	• To know that designers write design briefs and develop design criteria to enable them to fulfil a client's request • To know that 'multifunctional' means an object or product has more than one function • To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing