

#### Skills & Knowledge Progression: Art

#### National Curriculum - Aims and purpose

#### Purpose of study

Art, craft and design embody some of the highest forms of human creativity. A high-quality art and design education should engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art, craft and design. As pupils progress, they should be able to think critically and develop a more rigorous understanding of art and design. They should also know how art and design both reflect and shape our history, and contribute to the culture, creativity and wealth of our nation.

#### **Aims**

The national curriculum for art and design aims to ensure that all pupils:

- produce creative work, exploring their ideas and recording their experiences
- become proficient in drawing, painting, sculpture and other art, craft and design techniques
- evaluate and analyse creative works using the language of art, craft and design
- know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms.

## School aims - skills, attitudes and knowledge that we would like all children to develop on their journey through the school

Our aim for Art & Design is to help children appreciate a wide and diverse range of art and artists and to develop artistic skills so that they can create their own artistic pieces and to be able to evaluate their own and others creative work. In support of this we use an ambitious Art & Design curriculum, Plan Bee, which will introduce pupils to a diverse range of artists from different backgrounds and provide them with a range of opportunities to develop and apply their skills.

We are aware that historically children have been taught about numerous artists in primary schools. Many of these were European males e.g. Monet, Picasso, Van Gogh, Da Vinci etc. Whilst they are important artists to learn about, we have deliberately chosen to also teach Bayford pupils about female artists and artists from different cultures such as Frida Khalo, Sonia Delaunay and Yayoi Kusama.

Art stimulates imagination and creativity. Art enables us to communicate what we see, think and feel in ways that words alone simply are not capable of. Art provides us with both a universal language of colour, texture, form and pattern and with limitless opportunities to combine these in new ways. As a result of all this, we believe that it is vital for all children to experience and engage with a range of visual, tactile and sensory experiences. We aim to equip our children with both key artistic skills and an enjoyment of the subject that will help them to become expressive, open, curious and independent adults.

Links to learning in EYFS:	Links to other subjects / curriculum areas:	Experiences every child should have:
Expressive Arts & Design - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function Explore what happens when they mix colours Understand that different media can be combined to create new effects Create simple representations of events, people and objects Choose particular colours to use for a purpose Use what they have learnt about media and materials in original ways, thinking about uses and purposes.	Links to other subjects / curriculum areas:  Maths – exploring patterns, symmetry and sequences, and recognising how certain numerical patterns recur often in nature  English – discussion and debate around artworks and artists being studied; making and using masks to support drama and storytelling; studying the work of illustrators and creating new illustrations for existing stories  Computing – creating digital art and manipulating images  RE – the role of art, sculpture etc. in religious buildings and their symbolic meanings	Experiences every child should have:  Enter a piece of their artwork into a competition.  Work collaboratively on a large scale piece.  Show their work in a school or local gallery, and receive feedback from their audience.  Experience the process of 'being' an artist, working on canvas, organising, using and caring for their tools and seeking out new inspiration.
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design and technology, art, music, dance, role play and stories.		

# Knowledge and Skills Progression : Year 1 to Year 6

## **Art Curriculum**



Year	Scheme of work	Drawing - Line, pattern and texture	Painting, printing and colour	Collage, sculpture and 3-D art	Responding to artwork and using a sketchbook
1	Mark Making	I can explore ways of drawing lines between two points I can experiment with how I hold a pencil when sketching I can discuss what a line is I can use adjectives to describe lines I can experiment with pressure when drawing pencil lines I can experiment with different kinds of pencils and observe the different marks they make I can create different repeated line patterns I can discuss and comment on the texture in artwork I can use rubbing to recreate texture	I can hold a paintbrush correctly when painting I know what 'loading' the paintbrush is I know how to create a smooth sweeping brushstroke I can use paint to create differently shaped lines I can use my paintbrush to create lines of different thicknesses I can experiment with different ways to make marks using a paintbrush		I can explore how Kandinsky used different lines in his artwork  I can discuss how a line or a dot can be a piece of art using the story 'The Dot' by Peter H Reynolds  I can discuss the artworks of Paul Klee and say what I like and dislike about them  I can spot different mark making techniques in Klee's work  I can attempt to recreate some of the mark making in Klee's artwork
1	Colour Creations		I can name a variety of colours I can choose a favourite colour and give reasons for my choices I know what primary colours are I know what secondary colours are I can mix primary colours to make secondary colours I know how to create lighter shades of colour I know how to create darker shades of colour I can use a paintbrush to make basic marks using paint I can use paint to create artwork in the style of an artist we have studied	I can use collage to create artwork inspired by Piet Mondrian I can use collage and mixed media to create artwork inspired by Wassily Kandinsky  I can use collage and mixed media to create artwork inspired by Wassily Kandinsky  I can use collage to create artwork inspired mixed media to create artwork inspired by Wassily Kandinsky	I can say if I like or dislike Piet Mondrian's art I can spot similarities and differences between different pieces by Mondrian I can create a piece of art inspired by Mondrian I can comment on Kandinsky's use of colour to create effects I can create a piece of art inspired by Kandinsky
1	Self Portrait	I can discuss how artists have created different effects I can investigate how to make different marks using sketching pencils I can comment on how different grades of sketching pencil make different marks I can make a choice about which pencil I need to use for a purpose I can use a variety of media to create different effects I can apply a variety of techniques when drawing I can evaluate my work and the work of others and identify strengths and weaknesses	I can experiment with different kinds of paint and what effects I can create with them. I can comment on the effects different paints create I can say which kind of paint I prefer	I can use clay to create a self-portrait I can show an understanding and use of some basic clay skills I can begin to use tools to help me manipulate clay I can use coloured paper to create a collage self-portrait	I can explore portraits by a variety of artists, including Matisse, Kahlo, Rembrandt, Van Gogh, Opie and more I can comment on how portraits by different artists make me feel I understand that portraits can tell you about the person in them I can make decisions about what I want my self-portrait to say about me I can say what I like and dislike about different portraits

# Knowledge and Skills Progression : Year 1 to Year 6 Art Curriculum



Year		Scheme of work	Drawing - Line, pattern and texture	Painting, printing and colour	Collage, sculpture and 3-D art	Responding to artwork and using a sketchbook
2		Yayoi Kusama	I can experiment with different materials to make marks I can make attempts to mimic the art of a famous artist I can experiment with different mediums to create a polka dot pattern I can experiment with the kind of polka dot patterns I am making I can follow instructions to create the basis for my sketching I can make visual observations to inform my sketches	I can experiment with different mediums to create a polka dot pattern I can experiment with the kind of polka dot patterns I am making I can describe and make observations on a piece of artwork's colour and pattern I can make choices about the tools I will use when painting	I can develop my scissor/cutting skills when cutting out circles I can use paper art to recreate an installation piece by Yayoi Kusama I can comment on the shape/form of 3-D objects and sculptures I can use the rolling technique effectively to manipulate clay I can recreate the form of a pumpkin, inspired by Kusama's sculptures	I can join in discussions about a famous artist's work I can remember and give some facts about Yayoi Kusama I can respond appropriately to a piece of art by Yayoi Kusama I can say if I like or dislike a piece of artwork
2		Earth Art	I can identify repeating patterns in rangoli patterns I can identify repeating patterns in mandala patterns I can spot the symmetry in mandala patterns  I can spot the symmetry in mandala patterns	I know that natural materials can be used to make different mark making materials, including paints I can experiment with different ways to paint a rock I can comment on the colours of natural materials and how this can add to my artwork I can use given colours to finish a mandala pattern	I can describe what a sculpture is I can comment on what different sculptures are made from I can use natural materials such as twigs and sticks to create a sculpture I can recreate rangoli patterns using natural materials such as leaves I can use clay to create imprints of natural materials such as leaves I can describe what weaving is I can create a simple loom I can weave using interesting natural materials I can recreate a mandala using natural materials I can use natural materials to create a collage scene	I can names ways that rocks were used in ancient artworks I understand what is meant by 'abstract' artwork I can comment on the patterns created in woven rugs and tapestry I can discuss and explore mandalas with the class I can comment on the shapes, colours and patterns I can see in a mandala
2	!	Henri Rousseau	I can sketch and draw plants and flowers in the style of Rousseau I can sketch and create a 'portrait-landscape' I can use my imagination to generate ideas for my sketch	I can use natural materials to create prints I can create prints inspired by Rousseau's paintings	I can use paper to create a shoebox model of one of Rousseau's paintings I can use paper and other materials to create a mask I can use glue to help me attach different parts to my mask and/or model	I can say who Henri Rousseau was and recall facts about his life I can discuss a painting by Henri Rousseau I can discuss and explain how I feel when looking at a Rousseau painting I can discuss portraits, landscapes, and Rousseau's genre of 'portrait-landscape'

# Knowledge and Skills Progression : Year 1 to Year 6

## **Art Curriculum**



Year	Scheme of work	Drawing - Line, pattern and texture	Painting, printing and colour	Collage, sculpture and 3-D art	Responding to artwork and using a sketchbook
3	William Morris	I can recreate a wallpaper pattern in the style of William Morris I can explain what still life sketching is I can use use soft, light sketching techniques to create a still life sketch I can adjust my pencil grip when sketching I can use careful observation skills to create a still life sketch I can make observations about different sketching mediums I understand how shading is linked to the light source in a drawing I can identify repeating patterns in wallpaper designs	I can describe the process of block printing I can explain how different colours are achieved when using block printing to create a design I can design and create a relief printing tile to be used for block printing I can use a printing tile I have made to create a repeating pattern I can identify why a print may not have come out correctly I can create a half drop pattern with my printing		I can find similarities and differences between the different works of William Morris I can analyse an existing piece of artwork using language associated with Art and Design I can describe what the Arts and Crafts movement was and explain why it was founded I can comment on why I had to make changes to my design
3	Famous Buildings	I can create areas of light and dark in my sketches using different shading methods such as hatching, cross-hatching, stippling and scumbling I can vary my shading further through my use of pressure I can comment on the patterns created in the architecture of St Basil's Cathedral I can recreate patterns using oil pastels and ink I can spot symmetry in the designs of famous buildings I can use tracing to create a symmetrical piece of art I can create texture in my artwork to reflect real-life buildings	I can comment on the colours in the design of St Basil's Cathedral and the effect is has on the design I can change the value of a colour by creating tints and shades I can create colour blocks using oil pastels	I can choose materials I think would be suitable to make a sculpture or collage of a famous building I can use my folding and cutting skills to recreate a simplified sculpture of a building  I can use my folding and cut	I understand the role of an architect I can discuss the shapes and structures of famous buildings around the world I can say if I like or dislike the design of a building I can explore the work of Sir Christopher Wren and his design of St Paul's Cathedral I can choose elements of a building's design to fit a purpose I can follow a design brief in my own design of a building
3	Seurat and Pointillism	I can give a good description of what pointillism is I can experiment with a range of pointillism techniques I can apply pointillism techniques using different mediums I can evaluate techniques and mediums and say which one I prefer	I can use a variety of tools to create a pointillism painting I can use a variety of mediums to create a pointillism painting I can identify primary and secondary colours and explain how secondary colours are made I can identify tertiary colours on the colour wheel I can identify complementary colours on the colour wheel I can mix colours using the pointillism method I can make decisions about the subjects and colours of my artwork, giving reasons for my choices		I can explain who George Seurat was and why he was famous I can state how I feel about a piece of artwork and justify my thoughts I can experiment with a range of techniques and methods for creating Pointillism I can state which method I prefer and why I can name some Pointillist artists I can identify Pointillism in pieces of art I can give reasons for my choices of colour and subject in my artwork I can apply what I have learnt about Pointillism to create my own piece of artwork I can evaluate my finished artwork and compare it to that of my peers

# Knowledge and Skills Progression : Year 1 to Year 6

## **Art Curriculum**



Year	Scheme of work	Drawing - Line, pattern and texture	Painting, printing and colour	Collage, sculpture and 3-D art	Responding to artwork and using a sketchbook
4	Plant Art	I can use my observational skills to create a detailed sketch of part of a plant I understand that constant observation is important when creating a detailed sketch of a plant I understand that attention to detail is important when creating a detailed sketch of a plant I understand that patience is important when creating a detailed sketch of a plant I can discuss how to represent a plant as a piece of art I can follow simple instructions to create a more realistic sketch of a tree I can compare a sketch from my imagination, and a visually informed sketch and evaluate the differences	I understand the difference between tints, shades and tones I can create tints, shades and tones to match a given colour I can use tints, shades and tones to create a piece of artwork I can transfer a sketching method into the medium of painting effectively I understand what depth in an artwork is I can use colour and size to create the illusion of depth in my artwork	I understand what a sculpture is and what different materials they can be made from I can define the differences between decorative and functional sculpture I understand how slip can be used to join two pieces of clay I can use tools to make marks in the clay for decorative purposes I can add or remove bits of clay to create detail I can make my own simple sculpture from clay I can use layers of different colour paper to create a collage with depth	I can identify an artwork that is visually pleasing to me I can give my personal opinion of different artwork I can listen to others' opinions of artworks, and try to see their point of view I can describe what a botanical illustration is and why they were first created I can discuss and respond to Georgia O'Keeffe's artwork and how she used tones in her artwork I understand how artists create the illusion of depth in their artwork I can design my artwork and give reasons for my choices I can use my previous experience of different mediums to make decisions about my artwork
4	Sonia Delaunay		I can explain the difference between complementary and harmonious colours I can experiment with the use and effect of colours in their own artwork I can choose colours to use in my artwork based on if they are complementary or harmonious	I can experiment with coloured paper to create a collage I can make careful choices of the colours I use in my collage to create a complementary or harmonious effect	I can remember facts about Sonia Delaunay I can express my opinion about an artist or artwork I can discuss and answer questions about an artist and their artwork I can describe what Orphism art is I can discuss and explain how Sonia Delaunay created a feeling of movement in her artwork I can explain my opinion of Sonia Delaunay's fashion designs I can create my own designs in the style of Sonia Delaunay I can recognise the influence Sonia Delaunay's work has had on both fashion and modern art
4	Recycled Art	I can be inspired by a material's texture and pattern	I can be inspired by a material's colours I can experiment with and observe how different paints create different effects in my artwork I can select a suitable type of paint to decorate and finish my artwork	I can experiment with different ways I can join materials to make a 3-D piece of art I can select a suitable joining method when working with different materials I can look at different materials and make suggestions about how I could use them in my artwork I can use a material's existing shape to inspire my artwork I can create a simple animal sculpture from recycled materials	I can explore different pieces of recycled art I can comment on the message that a piece of art might be portraying I can say if I like or dislike a piece of art and why

# Knowledge and Skills Progression : Year 1 to Year 6 Art Curriculum



Year	Scheme of work	Drawing - Line, pattern and texture	Painting, printing and colour	Collage, sculpture and 3-D art	Responding to artwork and using a sketchbook
5	Chinese Art	I can use visual information to make sketches of different styles of traditional Chinese art I can explain the importance of lines in Chinese art in relation to the Four Gentlemen I can use drawing and shading skills to recreate a terracotta warrior I can identify patterns, images and styles associated with Ming porcelain I can follow simple instructions to draw a Chinese dragon I understand that I can use construction lines to map out the basic shape of my sketches I understand what a light source is and how this affects shading I can practise my shading in relation to a light source	I can identify some colours commonly used in Chinese art I can discuss and describe different brushstrokes used in artwork and how they might have been created I can practise a variety of brushstrokes to improve technique I can apply my brush control when creating artwork I understand the importance of line and brushstrokes in Chinese Art I can create Chinese calligraphy characters using the correct brushstroke sequence I can begin to use different paints and inks for different purposes	I can use simple rolling and pinching techniques to manipulate salt dough I can form simple shapes to create the base of my model I can attach two pieces of salt dough with the help of materials such as matchsticks to reinforce joins I can add pieces of salt dough to my base to create relief details I can use tools to create details in my salt dough or clay model I can carve a piece of clay to create the shape of my terracotta warrior I can use tools to help me shape and manipulate my clay I can add clay to my model to get the correct shape	I can identify and record sketches of some themes commonly used in traditional Chinese art I can discuss traditional Chinese artwork and say what I think and feel about it I understand the significance of the dragon in Chinese culture I can explain what the Terracotta Army is and why it is famous I know when the Ming dynasty was in power and why their porcelain is famous
5	Frida Kahlo	I can describe the general proportions of a face I can use my knowledge of proportions to complete a self-portrait I understand that I can use light guidelines for my sketches to help structure my sketches I can use light sketching lines to create my portrait	I can analyse aspects of a painting including mood and colour  I can add paint to a sketched self-portrait to add colour and detail  I can choose colours to express aspects of my personality  I can choose colours to express aspects of communities  I belong to		I can describe who Frida Kahlo is and give a brief summary of her work  I can give my opinion of a painting or artist, giving reasons for my ideas  I can describe the differences between a portrait and a self-portrait  I can describe aspects of Mexican folk art  I can identify aspects of the Mexican culture in Kahlo's artwork  I can describe the aspects of the surrealist movement  I can express my opinion of surrealism in paintings  I can apply aspects of surrealism to my own artwork
5	Street Art	, I can use sketching and shading to add details to my designs	I can select contrasting colours using the colour wheel to help me I can choose colours to create the biggest 'standout' effect I can use use impression printing to create a piece of repeated printed artwork I can create a stencil I can use a stencil to create a piece of artwork I can use a stencil to create a piece of artwork I can use more than one stencil to create a layered effect in my artwork		I can take part in a discussion about graffiti and if it is an art form or not I can design my own tag reflecting what I have seen in existing artwork I can experiment with the size, value and shape of my designs in my sketchbook I can use my sketchbook to create designs for street art in a specific area I can discuss the messages that are portrayed in some pieces of art I can create my own piece of satirical artwork I can explore the work of Banksy

# Knowledge and Skills Progression : Year 1 to Year 6 Art Curriculum



Year	Scheme of work	Drawing - Line, pattern and texture	Painting, printing and colour	Collage, sculpture and 3-D art	Responding to artwork and using a sketchbook
6	Landscape Art	I can use vanishing points, horizon lines and construction lines to create perspective in my artwork I can sketch a landscape using linear perspective. I can use lines and patterns to create abstract artwork  I can use lines and patterns to create abstract artwork	I can experiment with different watercolour techniques to create effects I can paint a landscape using watercolours I can experiment with a variety of mediums, including watercolours and pastels, to explore how the medium changes the effect of a landscape I can create tints and shades using a variety of different mediums I can use tints and shades to create atmospheric perspective	I can explain what collage is and how tearing paper can be used to create different effects I can create a torn paper collage of a landscape scene I can use different parameters to create torn paper collages, e.g. by altering the size of the paper I am using	I can identify vanishing points and horizon lines in landscape paintings I can explain how artists use linear and atmospheric perspective in their artwork I can comment on abstract landscapes and explain what I feel about them I can create a selection of lines and patterns in my sketchbook to inform my artwork I can discuss landscape artwork by famous artists, saying what I think and feel about them I can identify which medium has been used to create a piece of art I can make decisions about how to create a piece of landscape artwork based on the ideas I have gathered and techniques I have experimented with
6	Sculpting Vases	I can sketch designs to build up a portfolio of ideas I can take the light sources into account when sketching vases I can use my preferred shading technique to include dark areas in my sketches I can include the patterns and shapes in my sketches of vases I can make detailed observations to sketch vases from different viewpoints	I can make appropriate choices when decorating vases I understand how to create different effects using materials I can make decorative colour and pattern choices to fit a given theme	I can practise techniques and the effects they create before attempting my final design  I can choose and use appropriate techniques in my clay work  I can choose appropriate tools to add details to my design  I can add clay to create details for my design  I can experiment and develop my control of tools and techniques  I can choose tools, techniques and details which are most appropriate for my design  I can use slabs of clay to create a container  I can use the pinching technique to create a container  I can work with control and accuracy  I can follow a design to create a vase	I can identify different features of a vase's design I can describe and assess vases made by designers I can gather ideas for use in my own work I can incorporate design ideas or themes into my own designs I can identify ways in which I could improve my work I can evaluate and adjust my designs
6	Express Yourself	I can use sketching to represent different illustrated facial expressions I can make careful and precise observations to inform my sketching I can describe how lines and fonts can express an idea I can make choices based on different lines and fonts to create a desired effect I can use different pressures and thicknesses to create a desired effect I can use grids to help me achieve the correct proportions in my sketches based on photographs	I can explain how colour can help to express different aspects of someone's personality I can identify emotions they feel, linked to a colour I can use colour and shape to illustrate emotions, feelings and ideas to create my own colour theory I can experiment with using my fingerprints to create a unique piece of artwork I can vary the pressure and amount of paint I use when printing using my fingers to create different effects I can use overlapping and layering to create shadow in my painting	I can use wire to create a sculpture of a person I can convey an emotion or specific body language in my wire sculpture  I can use wire to create a sculpture of a person of	I can respond and comment on different pieces of artwork I can discuss and comment on Kandinsky's colour theory I can discuss and give my opinions on Chuck Close's painting techniques

#### Knowledge and Skills Progression Year 1 to Year 6



## Design & Technology Curriculum

Year	Scheme of work	Cooking and Nutrition
1	Eat More Fruits and Vegetables	I can name a variety of fruits and vegetables. I can use adjectives to describe the taste, smell and texture of a variety of fruits and vegetables. I know that some fruits and vegetables need to be washed, cut, cored, pe
2	Perfect Pizzas	I can name a variety of pizze toppings. I can use the model of the balanced plate to evaluate how healthy different pizzes are. I can explore different types of bread and evaluate which would work best for a pizze base. I can identify which food group a variety of pizze toppings belong to. I can sort pizze toppings into groups based on different criteria, e.g. enimal vs plant products. I can explain why each of the food groups is important for a balanced diet. I can design and make a healthy pizze following given criteria. I can evaluate my finished pizze, saying what I think and feel about it.
4	Seasonal Food	I can explain what the term 'seasonal food' meens. I know that different parts of the world have different seasonal food. I can discuss the benefits and problems of unseasonal food being evailable in shops all year round. I know that some foods, like wheat, are evailable all year round in the UK. I can practise cooking skills including slicing, dicing, beating, whisking, folding, sieving, rolling and grating. I can follow a recipe to make fairy cakes. I can distinguish between fruits that are grown in the UK. I can distinguish between fruits that are grown in the UK and those that are grown abroad. I know how food producers can speed up or slow down the ripening process to make fruits and vegetables available all year round. I can follow a recipe to make fruit tarts using seasonal fruit. I can follow a recipe to make stuffed peppers. I know some of the nutrients we get from fruits, vegetables, meat, fish and dairy products. I know when certain meets are in season in the UK and which are available all year round. I can follow a recipe to make meetbells. I know some vegetarian options that provide the same nutrients as meet. I can explain how fish are caught or reared, processed and used in healthy meels.
6	Burgers	I know that most foods we buy have nutrition labels to help us make informed choices about what we eat. I know that calories come from fats, proteins and carbohydrates. I can evaluate how healthy a burger is based on its nutrition label. I can compare different burgers and assess which is healthiest. I can explain some of the different ways in which burger patties are cooked. I can follow a recipe to make a beef, turkey or vegetable burger patty. I can add ingredients to a basic burger patty to reflect global cuisine. I can follow a recipe to make different burger seuces, including salss, tratziki and barbecue sauce. I can design a burger menu to incorporate different patties, sides and sauces. I can explore, taste and assess different types of breed and their suitability for a burger bun. I can offer suggestions for some alternatives for breed. I can design a burger for a particular purpose. I can design a burger for a particular purpose. I can make and evaluate a burger, following my recipe and design.

	Scheme of work	Stable Structures
1	Stable Structures	I can identify the features of toy garages. I know what the word 'stable' means. I can make changes to the design of a stable structure to make it fit for purpose. I can explore a range of materials and evaluate the usefulness of their properties for a particular project. I can explore how to make stable structures that hold a given object. I can follow a design to make a stable structure. I know some ways to make a structure more stable. I can evaluate my finished structure against a set of given criteria.
3	British Inventors	I can explain how concrete is used to make structures more stable. I can create a structure strong enough to hold a dictionary using just newspaper and tape.
4	Making Mini Greenhouses	I know what a greenhouse is and how they work. I can explore a range of different greenhouses. I know how greenhouses are used today. I can explain how the shape of a structure affects its stability. I know that the weight of the structure needs to be evenly spread on the base to make it secure. I know that the wider a structure's base is, the more stable it will be. I can use 3D nets to explore potential structures for a greenhouse, assessing their stability. I can investigate ways of making a structure more stable, e.g. by inserting dowelling or adding triangles at the joins. I can experiment with a range of materials to test which would be most appropriate for making the structure of a mini greenhouse. I can design a mini greenhouse using specific design criteria. I can select appropriate tools and materials to make a mini greenhouse. I can follow my design to make a mini greenhouse. I can evaluate my finished mini greenhouse for stability, effectiveness and visual appeal.
5	Building Bridges	I know what beams and pillars are and how they are used in bridge construction. I can predict which beams will be strongest from their cross-section. I can test the strength of different beam shapes using paper and card. I can explain what a truss is and how trusses make bridges stronger. I can identify the three types of trusses commonly used in bridge design. I can build a truss bridge spanning a width of 40cm using paper straws. I can use a fair test to evaluate the strength of my truss bridge. I can explain how arches work to make bridges stronger. I can test the arch heights to see which can bear the most load. I can make an arch frame. I can explain how suspension bridges use tension forces to work. I can design, make and evaluate a prototype suspension bridge using a scale of 1:100 according to specific design criteria.
6	Bird House Builders	I can investigate the appearance and function of a variety of different bird houses. I can identify what materials have been used to construct a variety of bird houses and suggest how the parts have been joined together.  I know what a flat pack diagram is and can use it to identify each part of a structure. I can create a flat pack diagram of a constructed bird house. I can draw an exploded diagram. I can identify the tools associated with basic woodwork. I can measure, clamp, saw, sand and join wood. I can use a hand drill to drill a hole in a piece of wood. I know the safety rules I need to follow when doing woodwork. I can design a bird house for a particular bird, taking into account the bird's needs. I can select appropriate tools and materials to use when making a bird house. I can create a sturdy bird house frame using wood. I can evaluate my finished bird house, taking into account the views of others to improve my work. I can use observation to evaluate the effectiveness of my bird house.

	Scheme of work	Programming and Electrical Systems
3	Light-Up Signs	I can explore and analyse illuminated signs. I can create a simple circuit with incandescent bulbs and a switch. I can describe the difference between an LED and an incandescent light bulb. I can create a simple circuit with an LED bulb and a resistor. I can make a circuit with a string of LED lights. I can design an illuminated light box against a set of design criteria. I can select materials, tools and components to create a free-standing structure. I can make a stable, free-standing structure to house an electrical circuit. I can strip, twist and join wire to make permanent connections. I can insert an electrical circuit into a free-standing structure to create an illuminated light box. I can evaluate the effectiveness of my finished product against the design criteria.
6	Programming Pioneers	I can explain how computers and computer programs are used in a variety of products. I can explain how modern memory chips work to store information. I can write an algorithm to suggest how various appliances might work. I know what a computer engineer is and what they do. I can describe some examples of how computer hardware and software specialists work together to create new products. I can develop and build a prototype pedestrian crossing using computer programming. I can develop, model and communicate ideas for an embedded system which monitors and controls a door, room or both. I can describe the typical design process for computer-controlled electronic products. I can debug errors in an algorithm. I can suggest ways to change an algorithm to improve a system. I can select and use electronic components to construct a prototype of an embedded computer-controlled room system. I can evaluate my design for a computer-controlled system and consider the views of others to improve my work.
	Scheme of work	Mechanical Systems
1	Moving Minibeasts	I can make a sliding mechanism out of card. I know what a pivot and lever are. I can use a pivot and lever mechanism using card and a split pin. I can make a wheel mechanism using card and a split pin. I can make a wheel mechanism to the type of movement they produce. I can design a moving minibeast picture to include a variety of moving mechanisms. I can follow a design to create a moving minibeast picture for a particular purpose. I can evaluate my finished moving minibeast picture by identifying things that worked well and things that could be improved.
2	Vehicles	I can investigate a range of vehicles, identifying and labelling their features. I know what an axle is. I know what a chassis is. I can explore different ways of using axles, chassis and wheels to create a moving base. I can design a vehicle with wheels, axles and chassis, as well as a body. I can follow a design to make a moving vehicle. I can evaluate my finished moving vehicle.
3	Storybooks	I can explore moving parts in storybooks, suggesting how they work and what purpose they serve. I can explain what the words 'linkage', 'pivot', 'rotate' and 'lever' mean. I can use a paper concertina to make an object pop out of a book. I can arrange and stick paper between pages to create a pop-out. I can use levers to create moving parts. I can create moving wheel mechanisms to create different effects. I can experiment with different fonts and graphic design features. I can design pages of a storybook to include moving mechanisms and appropriate graphic features.

5	Chinese Inventions	I explore how different transmissions create different movements. I can use a crank to change the motion on a transmission from circular to linear motion.
	Scheme of work	Textiles
2	Puppets	I can explore a variety of puppets, identifying and labelling their features. I can cut out felt using a simple template. I can stick pieces of felt together to make a finger puppet. I can add pieces of felt and other materials to a finger puppet to create features, such as eyes, hats and mouths. I can use running stitch to join two pieces of fabric together. I can use overstitch to join two pieces of fabric together. I can sew a button onto a piece of fabric. I can design a glove puppet for a particular purpose. I can follow a design to make a glove puppet by sewing two pieces of fabric together and adding decorations. I can evaluate my finished glove puppet by identifying what went well and what could be improved.
4	Seasonal Stockings	I can explain the difference between the function and visual appeal of a product. I can evaluate the function and visual appeal of a variety of Christmas stockings. I can use pins to temporarily fasten two pieces of fabric together. I can use running stick, back stitch, overstitch and zigzag stitch to join two pieces of fabric together. I can hide the finishing knot. I can identify a variety of decorative techniques that have been used to decorate Christmas stockings. I can sew a button, bead, sequin or pipe cleaner onto a piece of fabric. I can embroider shapes and potterns into a piece of fabric. I can use appliqué to add decoration to a piece of fabric. I can design a Christmas stocking incorporating a range of decorative techniques. I can use a template to cut out front and back pattern pieces. I can follow a design to create a Christmas stocking.
5	Fashion and Textiles	I can explain the process of turning raw cotton into cloth. I know that products that are woven together are called textiles. I know that different textiles have different properties, and can match these to their purpose. I can identify straight stitch, zigzag stitch, whip/blanket stitch, blind stitch, buttonhole stitch and overlock stitch on a variety of ready-made garments. I can sew a beasting stitch are sew a basting stitch. I can sew a bating stitch. I can sew a hem. I can sew a hem. I can sew an appliqué decoration. I can use back stitch to embroider. I know what a pattern piece is and why they are important when designing a garment. I can use pattern pieces to measure, mark, cut and sew fabric. I can use wdesign elements according to design criteria. I can join two pieces of fabric by hand sewing, using an appropriate stitch. I can evaluate my finished product against a set of design criteria.
	Scheme of work	Inventions and Achievements
3	British Inventors	I can explain about the invention of the mackintosh. I can investigate ways of making fabric waterproof. I can explain about the invention of the world wide web. I can describe how the invention of the internet has changed the world.

5	Chinese Inventions	I can explain how the invention of paper helped shape the world. I can explain the traditional method for making paper. I can test a variety of types of paper for strength, absorbency, opacity, etc. I can make recycled paper. I know how gunpowder was invented. I can explain how the invention of gunpowder helped shape the world. I can explain how the invention of the compass changed the world. I can make a hanging/floating compass. I can design and label my own compass. I can explain what water-powered machines are and how they helped change the world. I can explain what water powered machines are and how they were made. I can make a variety of kite prototypes and test their effectiveness. I can design, make and evaluate a kite according to specific design criteria.
6	Programming Pioneers	I know that Charles Babbage created the first mechanical computer. I know that Ada Lovelace is referred to as the world's first computer programmer. I know that Steve Jobs and Steve Wozniak co-founded Apple, Inc. to make the first Apple computers.

#### Art & Design: Curriculum covered at Bayford Primary School

#### KS1 (Class 1 – Year 1 & 2) Rolling Programme

Subject	Year A			Year B		
	Autumn Term	Spring Term	Summer Term	Autumn Term	Spring Term	Summer Term
Art and Design	<ul><li>Perfect Pizzas</li><li>Mark Making</li></ul>	Moving Minibeasts     Yaoi Kusama	Vehicles Earth Art	<ul><li>Self Portraits</li><li>Stable Structures</li></ul>	<ul><li>Henri Rousseau</li><li>Eat more Fruits and Vegetables</li></ul>	Puppets     Colour Creations

#### Lower KS2 (Class 2 – Year 3 & 4) Rolling Programme

Subject	Year A			Year B		
	Autumn Term	Spring Term	Summer Term	Autumn Term	Spring Term	Summer Term
Art and Design	William Morris     Seasonal Stockings	Light up Signs     British Inventors	Seurat and Pointillism     Seasonal Food	Famous Buildings     Recycled Art	Storybooks     Sonia Delaunay	Mini Greenhouses     Plant Art

#### Upper KS2 (Class 3 – Years 5 & 6) Rolling Programme

Subject	Year A			Year B		
	Autumn Term	Spring Term	Summer Term	Autumn Term	Spring Term	Summer Term
Art and Design	Burgers     Landscape Art	Chinese Inventions     Frida Kahlo	Express Yourself     Sculpting Vases	Bird House Builders     Street Art	<ul><li>Fashion and Textiles</li><li>Chinese Art</li></ul>	Building Bridges     Programming Pioneers