Year Five

Programmes of Study

Monitoring and Assessment

Coverage

As each skill/objective is taught within a subject unit (key objective), they must be highlighted to show coverage. Different colours will be used to represent each term.

Key:

Autumn	Blue
Spring	Green
Summer	Orange

Assessment

At the end of each unit, teachers must highlight the key objective *(Overall title at the top of the unit, which encompasses all of the skills/objectives covered and is written in bold)*, to show the following:

Green – 85% or above have achieved skills/objectives

Orange – 65-84%

Red – below 65%

Teachers must also record the names of children who are working above or below age-related in the left hand box.

Any children that are working above or below, should be taught the appropriate skills/objectives (i.e. teachers must plan from a range of year group programmes of study), and referenced within weekly planning.

Year Five

Subject	Skills and Objectives

Art & Design **Level 3 & 4** *Art is split into different art forms. For each form of Art there are four processes and then the appropriate skills and objectives for the year group. These can be taught at any point in the year, but try not to repeat the art form more than once per year, unless there is clear progression.*	

	Create & Communicate	• To create sketch books to record our observations and use them to review and revisit ideas.
	Using techniques to create effect	Level 3: • To use a number of sketches to base my work on. • To use a viewfinder to help me in my sketching. • To annotate my sketches in my art sketchbook to explain my ideas. • To sketch lightly (so you do not need to use a rubber) Level 4: • To select the most suitable drawing materials for the type of drawing I want to produce. • To use shading to add interesting effects to my drawings, using different grades of pencil. • To explain the ideas behind my images in my art sketchbook. • To use a variety of different shaped lines to indicate movement in my drawings. • To use shading to show shadows
	Appreciate artists who inspire and influence us	• About great artists, architects and designers.
	Create & Communicate	• To create sketch books to record our observations and use them to review and revisit ideas.
	Using techniques to create effect	Level 3: • To mix colours using tints and tones. • To use watercolour paint to produce washes for backgrounds and then add detail. • To experiment in creating mood and feelings with colour. Level 4: • To create colours by mixing to represent images I have observed in the natural and man-made world. • To experiment with different colours to create a mood.

		• To use colour and shapes in paintings to reflect feelings and moods.
	Appreciate artists who inspire and influence us	• About great artists, architects and designers.
	Create & Communicate	• To create sketch books to record our observations and use them to review and revisit ideas.
	Using techniques to create effect	Level 3: • To cut skilfully and precise. To include skills, such as: • Coiling, • Overlapping • To know the striking effect work in a limited colour palette can have, through experimentation. • To can make paper coils and lay them out to create patterns or shapes. • To use mosaic. • To use montage. • To use tessellation and other patterns in my collage. Level 4: • To experiment with techniques that use contrasting textures, colours or patterns. (rough/smooth, light/dark, plain/patterned) • To have experimented with ceramic mosaic techniques to produce a piece of art. • My work reflects a purpose, which I write about in my art sketchbook. • My collage is based on observational drawings. • My collage reflects a real purpose and I write about this in my art sketchbook.
	Appreciate artists who inspire and influence us	• About great artists, architects and designers.
	Create & Communicate	• To create sketch books to record our observations and use them to review and revisit ideas.
	Using techniques to create effect	Level 3: • To can make nets of shapes to create recognisable forms. • To can join these together to create abstract forms.

Working below:		• To experiment with making life size models. • To use my clay techniques to apply to pottery Level 4: • To use a variety of tools and techniques for sculpting in clay, papier-mache and other mouldable materials. • To use carvings to a surface to create shapes, texture and pattern. • To explore paper techniques such as pop- -up books and origami • To add paper curlings or other objects to a surface to embellish.
	Appreciate artists who inspire and influence us	• About great artists, architects and designers.
	Create & **Communicate**	• To create sketch books to record our observations and use them to review and revisit ideas.
	Using techniques to create effect	Level 3: • To make my own printing blocks and experiment with different materials. • To can make a one coloured print. • To can build up layers of colours to make prints of 2 or more colours. Level 4: • My printing uses a number of colours built up in a sequence. • To make precise repeating patterns by creating accurate printing blocks. • My printing replicates patterns I have observed in either the natural or man-made world and are based on my observational drawings.
	Appreciate artists who inspire and influence us	• About great artists, architects and designers.
	Create & **Communicate**	• To create sketch books to record our observations and use them to review and revisit ideas.
	Using techniques to create effect	Level 3: • To use glue to join fabrics. • To use running stitch to join fabrics. • To have explored plaiting and understand the basic method. • To know how to dip dye to produce fabric of contrasting colours. • To have looked at examples of patchwork and then design and make my own, using glue or stitching. Level 4: • To have a sound understanding of how to use the techniques of sewing (cross stitch & backstitch) appliqué, embroidery, plaiting, finger knitting.

		• To combine some of the techniques I know to create hangings.
	Appreciate artists who inspire and influence us	• About great artists, architects and designers.

	Music	*Music runs throughout the year. It is up to the teacher to plan out how this is to be taught progressively throughout each year group.*
Working above: Working below:	Controlling sounds through singing and playing (Performing)	• Sing in tune • Breathe well and pronounce words, change pitch and show control of singing • Perform songs with an awareness of the meaning of the words. • Be able to play and perform in solo and ensemble contexts. • Hold their part in a round • Perform songs in a way that reflects their meaning and the occasion. • I can play an accompaniment on an instrument (e.g. glockenspiel, bass drum or cymbal)
Working above: Working below:	Create and develop musical ideas (Composing)	• Know how to make creative use of the way sounds can be changed, organised and controlled (including ICT) • Create own songs • Create rhythmic patterns with an awareness of timbre and duration. • Create music which reflects given intensions and uses notations as a support for performance. • Identify where to place emphasis and accents in a song to create effects.
Working above: Working below:	Respond and reviewing (Appraising)	• Use a range of words to describe music (e.g. pitch, duration, dynamics, tempo, timbre, texture and silence) • Describe own music using musical words and use this to identify strengths and weaknesses in own music.
Working above: Working below:	Listen, understand and appreciate a range of music. Apply knowledge and understanding.	• Combine sounds expressively • Create songs with an understanding of the relationship between lyrics and melody. • Know and begin to use the standard notation of crotchet, minim and semibreve and indicate how many beats to play. • Begin to develop and understand the history of music.

D&T Levels 3 & 4	*D&T is taught once per term. It is up to the teacher to take these objectives/skills below and plan out what will be designed and made, in accordance with your topics, following the process below each time. Remember to ensure teaching of, application of and consolidation of skills, as well as progression from unit to unit. (Remember some more able chn will progress to the level 2 skills, which can be obtained from the Year 2 PoS.)*		
Assessment / Evaluation	(ARE: Level 3 - Autumn) Unit 1:…………………………………………. Working above: Working below:	(ARE: Level 4 - Spring) Unit 1:…………………………………………. Working above: Working below:	(ARE: Level 4 - Summer) Unit 1:…………………………………………. Working above: Working below:
Level 3	**To know, understand and use the skills needed to design and make in a range of relevant contexts including; leisure, culture, enterprise, industry and the wider environment.**		
	Design: • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams.		
	Make: • Use a wider range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing], accurately. • Select from and use a wider range of materials and components, including construction materials, textiles and ingredients.		
	Evaluate: • Investigate and analyse a range of existing products. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.		

		Technical knowledge:
		Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. **Understand** and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
Level 4		To know, understand and use the skills needed to design and make in a range of relevant contexts including; leisure, culture, enterprise, industry and the wider environment.
		Design: - Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams.
		Make: - Use a wider range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing], accurately. - Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties.
		Evaluate: - Investigate and analyse a range of existing products. - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. - Understand how key events and individuals in design and technology have helped shape the world.
		Technical knowledge: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

	• Understand and use electrical systems in their products [for example series circuits incorporating switches, bulbs, buzzers and motors].
Geography	*Geography must be taught in order, i.e. a first, then b…, etc.
Year 5, a	**The study of another Continent (Eg. Africa)**
Working above: Working below:	• Confidently use maps, globes and Google Earth. • Use atlases/maps to describe and locate places using 4 figure grid references. • Locate the Equator on a map, atlas and globe and draw conclusions about the climates of countries on the Equator and on the tropics. • Locate largest urban areas on a map and use geographical symbols e.g. countours to identify flattest and hilliest areas of the continent. • Ask questions e.g. what is this landscape like? What is life like there? • Study photos/pictures/maps to make comparisons between locations. • Identify and explain different views of people including themselves. • Use maps to locate features of the UK e.g. rivers, mountains, large cities. • Explain and defend which are physical and which are human features. • Label counties, cities, mountains and rivers. • Study photographs and maps of 3 different locations in the UK. Ask Geographical questions e.g. How was the land used in the past? How has it changed? What made it change? How may it continue to change?
Year 5, b	**Rivers and the water cycle including transpiration**
Working above: Working below:	• Use the language of rivers e.g. erosion, deposition, transportation. • Explain and present the process of rivers. • Compare how river use has changed over time and research the impact on trade in history. • Research and discuss how water affects the environment, settlement, environmental change and sustainability.
Year 5, c	**Human geography including trade between UK and Europe and ROW.** **Fair/unfair distribution of resources (Fairtrade)**
Working above: Working below:	• Identify trade links around the world based on a few chosen items e.g. coffee, chocolate, bananas. • Discover where food comes from. • Discuss and debate fair trade. • Investigate the facts and join in a reasoned discussion. • Generate solutions and promote ethically sound

History	*History must be taught in order, i.e. a first, then b… (this is to allow for progression in levels of skills. As you can see, it begins with level 2 and progresses to level 3 skills).*
Year 5, a	**Ancient Greece – a study of Greek life and achievements and their influence of the western world.**
Working above: Working below:	**Level 3** • Use a timeline to understand and order historical events. • Recall dates/periods of some significant events in History. • Identify and use evidence to explain features/objects which characterize periods of time, for example cultural and leisure activities, houses and settlements, attitudes and religion. • Understand and can explain how features from life in the past influence our life today. • Use a wide range of sources of information to understand life in the past. e.g. Books, internet, personal recounts, museum, music and photographs. • I use a range of resources when presenting information about the past, e.g. Speaking, writing, ICT, drama and drawing. **Level 4** • Know the dates of any significant periods in History (from this country or others) and use the correct terminology (eg, BC/AD, social religious, political, technological and cultural) when placing them on a timeline. • With guidance, choose reliable sources of evidence to describe lives in the past. Including homes, leisure activities, lifestyles, buildings, religion and beliefs, important people, differences between rich/poor lifestyles • Describe how events and developments in the past have affected life today. • When describing an event in the past, use a range of sources. Eg. Internet, databases, pictures, photographs, music, artefacts, historic buildings, visits to museums, galleries and sites. And use this information to demonstrate an understanding that there can be different versions of an event, and give clear reasons why.
Year 5, b	**A non European society that provides contrast with British History – one chosen study from early Islamic civilisation; including a study of Baghdad c AD900; Mayan civilisation C. AD900; Benin (West Africa) c. AD 900 – 1300.**

	Level 3 / 4
Working above:	
Working below:	• Use a timeline to know the dates of any significant periods in History (from this country or others) and use the correct terminology (eg, BC/AD, social religious, political, technological and cultural) when placing them on a timeline. • Recall dates/periods of some significant events in History. • Identify and use evidence to explain features/objects which characterize periods of time, for example cultural and leisure activities, houses and settlements, attitudes and religion. • Understand and begin to describe how events and developments in the past have affected life today. • Use and begin to choose a wide range of sources of information to understand life in the past. e.g. Books, internet, personal recounts, museum, music and photographs. • When describing an event in the past, use a range of sources. Eg. Internet, databases, pictures, photographs, music, artefacts, historic buildings, visits to museums, galleries and sites. And use this information to demonstrate an understanding that there can be different versions of an event, and give clear reasons why.

Science	*Science topics can be taught in any order.

Year 5	**Working Scientifically**
Working above: Working below:	In Year 5 and 6 • planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments. Pupils in years 5 and 6 should use their science experiences to: explore ideas and raise different kinds of questions; select and plan the most appropriate type of scientific enquiry to use to answer scientific questions; recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. They should use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. They should make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them; choose the most appropriate equipment to make measurements and explain how to use it accurately. They should decide how to record data from a choice of familiar approaches; look for different causal relationships in their data and identify evidence that refutes or supports their ideas. They should use their results to identify when further tests and observations might be needed; recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. They should use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas and should talk about how scientific ideas have developed over time. These opportunities for working scientifically should be provided across years 5 and 6 so that the expectations in the programme of study can be met by the end of year 6. Pupils are not expected to cover each aspect for every area of study.

Year 5	**Living things and their habitats**
Working above:	 • To describe the differences in the life cycles of a mammal, an amphibian, an insect

Working below:	and a bird • To describe the life process of reproduction in some plants and animals. Pupils should study and raise questions about their local environment throughout the year. They should observe life-cycle changes in a variety of living things, for example, plants in the vegetable garden or flower border, and animals in the local environment. They should find out about the work of naturalists and animal behaviourists, for example, David Attenborough and Jane Goodall. Pupils should find out about different types of reproduction, including sexual and asexual reproduction in plants, and sexual reproduction in animals. Pupils might work scientifically by: observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times), asking pertinent questions and suggesting reasons for similarities and differences. They might try to grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs. They might observe changes in an animal over a period of time (for example, by hatching and rearing chicks), comparing how different animals reproduce and grow.	
Year 5	**Animals, including humans**	
Working above: Working below:	• To describe the changes as humans develop to old age. Pupils should draw a timeline to indicate stages in the growth and development of humans. They should learn about the changes experienced in puberty. Pupils could work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.	
Year 5	**Properties and changes of materials**	
Working above:	• compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets • know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	

Working below:	• use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • demonstrate that dissolving, mixing and changes of state are reversible changes • explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. Pupils should build a more systematic understanding of materials by exploring and comparing the properties of a broad range of materials, including relating these to what they learnt about magnetism in year 3 and about electricity in year 4. They should explore reversible changes, including, evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes. Pupils should explore changes that are difficult to reverse, for example, burning, rusting and other reactions, for example, vinegar with bicarbonate of soda. They should find out about how chemists create new materials, for example, Spencer Silver, who invented the glue for sticky notes or Ruth Benerito, who invented wrinkle-free cotton.
Year 5	**Earth and space**
Working above: Working below:	• describe the movement of the Earth, and other planets, relative to the Sun in the solar system • describe the movement of the Moon relative to the Earth • describe the Sun, Earth and Moon as approximately spherical bodies • use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. Pupils should be introduced to a model of the Sun and Earth that enables them to explain day and night. Pupils should learn that the Sun is a star at the centre of our solar system and that it has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune (Pluto was reclassified as a 'dwarf planet' in 2006). They should understand that a moon is a celestial body that orbits a planet (Earth has one moon; Jupiter has four large moons and numerous smaller ones). Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses. Pupils should find out about the way that ideas about the solar system have developed, understanding how the geocentric model of the solar system gave way to the heliocentric model by considering the work of scientists such as Ptolemy, Alhazen and Copernicus. Pupils might work scientifically by: comparing the time of day at different places on

the Earth through internet links and direct communication; creating simple models of the solar system; constructing simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day; finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks.

Year 5	Forces
Working above:	- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object - identify the effects of air resistance, water resistance and friction, that act between moving surfaces - recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. Pupils should explore falling objects and raise questions about the effects of air resistance. They should explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall. They should experience forces that make things begin to move, get faster or slow down. Pupils should explore the effects of friction on movement and find out how it slows or stops moving objects, for example, by observing the effects of a brake on a bicycle wheel. Pupils should explore the effects of levers, pulleys and simple machines on movement. Pupils might find out how scientists, for example, Galileo Galilei and Isaac Newton helped to develop the theory of gravitation. Pupils might work scientifically by: exploring falling paper cones or cup-cake cases, and designing and making a variety of parachutes and carrying out fair tests to determine which designs are the most effective. They might explore resistance in water by making and testing boats of different shapes. They might design and make products that use levers, pulleys, gears and/or springs and explore their effects.

Subject	Skills and Objectives
Computing	

	Using a computer Working above: Working below:	**To continue to develop typing speed and accuracy to develop competency in typing** **To understand the purpose of and use independently a range of different technology.** **To make choices about when to use technology, which piece(s) of technology to use, which software/tools they are going to use on the technology and be able to explain their choices to others.** • Throughout KS2 children should:- • Continue to become familiar with a range of devices, for example tablets, desktop computers, laptops, microphones, cameras etc and increasingly develop their independence and confidence in using these devices. • Continue to increase their typing speed, and be encouraged to play games at home and school which help with this. • Aim to reach the accepted competency rate for children of 20WPM by the end of Year 4. • Be encouraged to increasingly make sensible choices about the technology they use to help them work, and to justify their choices- for example, why they have chosen to use a tablet rather than a laptop, or why they have chosen to use an easi-speak microphone rather than the computer to record sound.
	Using the Internet Working above: Working below:	**To use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data** **To save and use pictures, text and sound and be able to import into a document for presentation (ref. multimedia presentation)** **To recognise that the Internet may contain material that is irrelevant, bias, implausible and inappropriate** **To understand the issues of copyright and how they apply to their own work.** • Discuss different strategies for finding relevant information e.g. using different keywords to find information on a given enquiry • Use a range of keywords to find different sources of information and enter them into a chosen search engine • Modify searches further to find relevant information for a report • Select and combine information from a range of different sources and present theirfindings using a word processing or multimedia/publishing package for a specific audience • Be aware that web sites are not always accurate and that informationshould be checked before it is used. • Discuss issues of copyright and downloading material e.g. mp3s, images, videos etc. Find images which are creative common licenced and understand the importance of stating their sources.

	Communicating and collaborating online Working above: Working below:	**To share and exchange their ideas using e-mail and electronic communication- inside the school environment.** **To use collaboration tools to work together to produce a joint piece of work** • Discuss different strategies for finding relevant information e.g. using different keywords to find information on a given enquiry • Use a range of keywords to find different sources of information and enter them into a chosen search engine • Modify searches further to find relevant information for a report • Select and combine information from a range of different sources and present their findings using a word processing or multimedia/publishing package for a specific audience • Be aware that web sites are not always accurate and that information should be checked before it is used. • Discuss issues of copyright and downloading material e.g. mp3s, images, videos etc. Find images which are creative common licenced and understand the importance of stating their sources.
	Creating and Publishing Working above: Working below:	**To create non-traditional presentations using a range of tools, for a specific purpose.** **To create websites for a specific purpose and improve these sites.** **To use technology to help them present their work, showing an increasing degree of skill and using advanced features of software and tools.** **To select tools which they can use to help them achieve a specific aim and justify these choices to others.** • Use an alternative presentation tool (for example Prezi or Ahead) to create a presentation linking into a topic, arContinue to create websites based on topics, area of interest or events, increasing the complexity of these sites. • Continue to regularly use word processing and desktop publishing to present their work, combing formatted text with other media and making choices about programs and features to use and justifying these choices to others. • Continue to use ICT to create a finished product or set of linked products, developing consistency in style across linked products. of interest or event.
	Digital media Working above: Working below:	**To use a range of technology to sequence sound samples, giving consideration to the audience and purpose.** **To use technology to electronically compose music or sounds including creating melodies and save these as audio files.** **To use technology to capture and edit video, applying a range of different effects and incorporating numerous video clips.** **To use technology to create images including using layers.** **To understand the difference between a image and a vector drawing.**

		To independently take photographs and record video taking into account the audience and/or purpose for the image/video. • Use a range of devices to create extended pieces of music using a wide range of pre-recorded samples.
		- Use a range of devices to create music samples and sequence these. - Use image creation tools to create more complex images, including using layers. - Understand the differences between an image and a vector drawing. - Continue to choose to independently record video for a range of purposes. - Continue to take photographs for a specific reason or project and/or find appropriate images on-line.
	Programming and control Working above: Working below:	**To continue to develop their understanding of how computer and technology works and how computers process instructions and commands, including the use of coding languages.** **To explore ways in which software can be planned.** **To use assisted programming software to create basic software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations.** - Continue to develop an understanding of how technology works, with a focus on developing computational thinking. - Understand that software relies on codes to run and that a range of different coding languages exist. - Explore different ways in which computer software can be planned. - Use a range of assisted programming software (e.g Scratch and/or Kodu) to plan, design and create basic software (for example a simple game), which interact with external controllers (e.g. keyboard and/or mouse). - Using the software control the movement and responses of different elements on screen. - Use visual programming based software to plan, design and create basic non-game software which use logic, algorithms and calculations. (e.g. use scratch to create an interactive maths quiz for a KS1 child)
	Modelling and simulation Working above: Working below:	**To understand that ICT allows for situations to be modelled, or those which it would be impractical to try out in real life and investigate the effect of changing variables in these simulations. Know that simulations are often guided by hidden rules** **To use software to model 3D objects.** - Use software to create models of 3D objects, landscapes or items. - Explore a range of increasingly complex simulations, exploring the effect of changing variables and recording the results.
	Using Data	**To continue to use, search, enter data into and create their own databases.**

	Working above:	**To continue to use technology, including spreadsheets to create graphs and present data in different ways.**
		• Use ICT to sort objects into groups according to a give criteria, or criteria which the child identifies themselves.
		• Begin to use technology to create graphs and pictograms
	Working below:	