Holy Trinity CE Primary School



Holy Trinity CE Primary School is striving to be a fully inclusive school that serves our local community. Through the love of Jesus Christ, we are preparing our children to be future caring, responsible citizens in a diverse society. Our children will be given every opportunity to grow spiritually, academically, socially and to achieve their full potential within a safe, happy Christian school family.

'Life in all is fullness' - John 10v10

Medium Term Plan - Autumn 1

Colourful Characters

Lead Subjects: Art, History

Theme Week: World of Colour Week

Black Lives Matter Week

Outdoor Elements

PSHE: Valuing Differences

<u>Subject</u>	Year Group	Key Learning (Knowledge)	Skills	Key Facts/Skills
		Drawing Skills Progression		
Art: Art Based skills progression link to their significant person using different media.	EYFS	Continues to explore colour and how colours can be changed Develops an understanding of using lines to enclose a space, and begins to use drawing to represent actions and objects based on imagination, observation and experience Uses various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces Uses tools for a purpose. Working towards, creating a portrait of Neil Armstrong/self-portrait.	Examples of how to support this: Use resources for mixing colours, joining things together and combining materials, supporting where appropriate Work together to develop and realise creative ideas. To work safely. Explore concepts and ideas through their representations.	By the end of the unit, pupils should know: • Mix colours independently. • To know how to work collaboratively. • To use tools to create such as pencil, paintbrushes. • To use lines to represent objects and actions. • To reflect on their work. • That working together can help to develop ideas.
	Year 1	Record and explore ideas from first hand observations. § Ask and answer questions about the starting points for their work. § Develop their ideas - try things out, change their minds. § Explore the work of artists, craftspeople and designers from different times and cultures for differences and similarities. § Review what they and others have done and say what they think and feel about it.	Experiment with a variety of media; pencils, rubbers, crayons, pastels, felt tips, charcoal, ballpoints, chalk Control the types of marks made with the range of media Lines and Marks Draw lines marks from observations	By the end of the unit, pupils should know: The different medias for drawing are; pencils, rubbers, crayons, pastels, felt tips, charcoal, ballpoints, chalk. From Observing lines and marks, you can then copy and draw different types of lines.

	§ Identify what they might change in their	Shape	By looking at shapes around us, we
	current work or develop in future work.	Observe and draw shapes from	can draw lots of different shapes.
	Working towards, creating a portrait of Christopher Columbus	observations Tone Investigate tone by drawing light/dark lines.	By drawing light and dark lines, you can create tone. By copying, rubbing, describing and naming items, you can find and
		<u>Texture</u> Investigate textures by describing,	investigate texture to your drawing.
		naming, rubbing, copying	
Year 2	Record and explore ideas from first hand observations. § Ask and answer questions about the starting points for their work. § Develop their ideas - try things out, change their minds.		By the end of the unit, pupils should know: Using different types of marks made with a range of media helps to create interest.
	S Explore the work of artists, craftspeople and designers from different times and cultures for differences and similarities. S Review what they and others have done and say what they think and feel about it. S Identify what they might change in their current work or develop in future work.		By using different surfaces with a range of media helps to create different effects. You can invent new shapes by drawing shapes in between objects. You can create tone by drawing, light and dark patterns and light and dark shapes.
	Working towards, creating a portrait of Florence Nightingale.		Textures can be created by naming, rubbing or copying.

		Experiment with a variety of media; pencils, rubbers, crayons, pastels, felt tips, charcoal, ballpoints, chalk Control the types of marks made with the range of media Lines and Marks Draw on different surfaces with a range of media Shape Draw shapes in between objects Invent new shapes Tone light/dark patterns, light/dark shapes Texture Investigate textures by describing, naming, rubbing, copying	
Year 3	Select and record from first hand observation, experience and imagination, and explore ideas for different purposes.		By the end of the unit, pupils should know:

observations about starting points and select ideas to use in their work. § Explore the roles and purposes of artists, craftspeople and designers working in different times and cultures. § Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them. § Adapt their work according to their views and describe how they might develop it further. § Annotate work in journal. Working towards and creating a portrait of Cleopatra.	Use journals to collect and record visual information from different sources Make marks and lines with a wide range of drawing implements e.g. charcoal, pencil. Experiment with different grades of pencil and other implements to create lines and marks Begin to show an awareness of objects having a third dimension Apply a simple use of pattern and texture in a drawing	you to achieve variations in tone. Variations in tone allow you to create shadows and reflections. By implementing pencil, crayon, chalk, pastels, pens allow you to create shading and texture. Using different medias allows you to create mood and atmosphere into your drawing. Using different drawing implements allows you to create texture into your drawing.
Select and record from first hand observation, experience and imagination, and explore ideas for different purposes. § Question and make thoughtful observations about starting points and	Use journals to collect and record visual information from different sources	By the end of the unit, pupils should know: By the end of the unit, pupils should be able to answer:
	select ideas to use in their work. § Explore the roles and purposes of artists, craftspeople and designers working in different times and cultures. § Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them. § Adapt their work according to their views and describe how they might develop it further. § Annotate work in journal. Working towards and creating a portrait of Cleopatra. Select and record from first hand observation, experience and imagination, and explore ideas for different purposes. § Question and make thoughtful	select ideas to use in their work. § Explore the roles and purposes of artists, craftspeople and designers working in different times and cultures. § Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them. § Adapt their work according to their views and describe how they might develop it further. § Annotate work in journal. Working towards and creating a portrait of Cleopatra. Select and record from first hand observation, experience and imagination, and explore ideas for different purposes. § Question and make thoughtful observations about starting points and Use journals to collect and record visual information from different sources Use journals to collect and record visual information from different sources Use journals to collect and record visual information from different sources Use journals to collect and record visual information from different sources Use journals to collect and record visual information from different sources

	§ Explore the roles and purposes of artists, craftspeople and designers working in different times and cultures. § Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them. § Adapt their work according to their views and describe how they might develop it further. § Annotate work in journal. Working towards and creating a portrait/image of a Roman soldier or Boudica	Make marks and lines with a wide range of drawing implements e.g. pencil, crayon, chalk pastels, pens etc Experiment with different grades of pencil and other implements to achieve variations in tone Create textures with a wide range of drawing implements (tools)	Different grades of pencil, help you to achieve variations in tone. Variations in tone allow you to create shadows and reflections. By implementing pencil, crayon, chalk, pastels, pens allow you to create shading and texture. Using different medias allows you to create mood and atmosphere into your drawing. Using different drawing implements allows you to create texture into your drawing.
Year 5	Select and record from first hand observation, experience and imagination, and explore ideas for different purposes. § Question and make thoughtful observations about starting points and select ideas to use in their work. § Explore the roles and purposes of artists, craftspeople and designers working in different times and cultures. § Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them.	Work in a sustained and independent way to create a detailed drawing Develop close observation skills using a variety of view finders. Identify artists who have worked in a similar way to their own work. Lines, marks, tone, form & texture Use dry media to make different marks, lines, patterns and shapes within a drawing.	By the end of the unit, pupils should be able to answer: View finders allow you to develop close observations. worked in a similar way. Mixing, blending techniques with coloured pencils, allow you to explore different shades and tones of colour. Shading and hatching are a different technique to drawing.

	 § Adapt their work according to their views and describe how they might develop it further. § Annotate work in a journal. Working towards and creating a portrait/image of a Greek God 	Explore colour mixing and blending techniques with coloured pencils	A single focal point is going to give you a simple perspective.
Year 6	Select and record from first hand observation, experience and imagination, and explore ideas for different purposes. § Question and make thoughtful observations about starting points and select ideas to use in their work. § Explore the roles and purposes of artists, craftspeople and designers working in different times and cultures. § Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them. § Adapt their work according to their views and describe how they might develop it further. § Annotate work in a journal. Working towards and creating a portrait of a Viking soldier.	Work from a variety of sources including observation, photographs and digital images. Work in a sustained and independent way to create a detailed drawing Use a journal to collect and develop ideas. Lines, marks, tone, form & texture Use dry media to make different marks, lines, patterns and shapes within a drawing. Experiment with wet media to make different marks, lines, patterns, textures and shapes Explore colour mixing and blending techniques with coloured pencils Perspective and Composition	By the end of the unit, pupils should be able to answer: Lines, marks, tone, form and texture are made by using different forms of shading. Observations, photographs and digital images are used to capture art in different forms. Journals can be used to collect explore, reflect and develop ideas. Wet media is ink, pen, water-coloured pencils. Scale and proportion in drawings can be made by using foreground, middle ground and background.

			Begin to develop an awareness of composition, scale and proportion in their drawings e.g. foreground, middle ground and background	
<u>Subject</u>	<u>Year Group</u>	<u>Curriculum Links</u>	Skills	5 Key Knowledge Facts Woven theme: childhood Woven theme: Religion
History-	EYFS	Substantive Concept (First order): Justice/Equality Disciplinary (Second Order) Concept: Significance EYFS: Family History Who is special to me? Talk about the lives of the people around them and their roles in society Use different sources to find out about places and describe their features. BLM Week~ Malorie Blackman	EYFS Key Learning Communication- talk about key events, in own lives, about family, friends, other people including significant people. Talk about key roles people have in society both in the past and the present. EYFS Key Learning Observe- show an interest in significant events and experiences in the lives of others, including friends and family members, and through books.	By the end of the unit, pupils should be able to answer: Mrs Whitaker and the teachers make things fair in school. People help us like the police keep things fair. We are all special and we all have people who are special to us. I was a baby, I was a toddler and now I am a child. As grow and get older our timeline gets longer.

	 Know that there are different countries in the world and talk about the differences they have experienced or seen in photos. Recognise some similarities and differences between life in this country and life in other countries. Disciplinary (Second Order) Concept: Significance EYFS: People who help us e.g. Police and Mrs Whitaker. Who helps keep things fair and just for us? e.g. rain/sunshine Lancashire Archives- log book 		
Year 1	Substantive Concept (First order): Migration Disciplinary (Second Order) Concept: Significance Explorers: Neil Armstrong -the lives of significant individuals in the past who have contributed to national and international achievements. What was the significance of Neil Armstrong's achievement?	Events, People and Places Events beyond living memory which are significant nationally or globally. The lives of significant individuals in the past who have contributed to national and international achievements. Enquiry, Interpretation and Using Sources Make simple observations about different people, events, beliefs and communities	By the end of the unit, pupils should know: Neil Armstrong was an astronaut who went into space. Neil Armstrong and his crew of astronauts were away for nine days. Neil Armstrong discovered that humans would not be able to live unaided on the moon. The first successful moon landing was on the 20th July 1969.

BLM Week~ Rosa Parks	 Ask and answer questions about the past through observing, handling and using a range of sources such as objects, pictures, stories, plays, songs, film clips, buildings, museum displays and people talking about their past Consider why things may change over time Recognise some of the reasons why people in the past acted as they did. Ask questions e.g. what was different?' Identify some of the basic ways the past can be represented e.g. through pictures Choose parts of stories and other sources to show what they know about significant people and events
	Chronology
	 Recognise the distinction between past and present. Use common words and phrases relating to the passing of time such as before, after, yesterday, past, last year, a long time ago
	Communication
	 Use a variety of historical terms such as discovery, explorer, long ago etc. Retell simple stories about people and events from the past Talk about who/what was significant/important in a simple historical account

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Substantive Concept (First order): Justice/ **Equality**

Disciplinary (Second Order) Concept: Significance

Florence Nightingale-

-the lives of significant individuals in the past who have contributed to national and international achievements. Some should be used to compare aspects of life in different periods [Mary Seacole and Florence Nightingale]

How/Why did Florence Nightingale improve health care during the Crimean War?

Scurti hospital illustration.

BLM Week~ Mary Seacole

Events, People and Places

- Events beyond living memory which are significant nationally or globally.
- The lives of significant individuals in the past who have contributed to national and international achievements.

Enquiry, Interpretation and Using Sources
• Make simple observations about different people, events, beliefs and

- Ask and answer questions about the past through observing, handling and using a range of sources such as objects, pictures, stories, plays, songs, film clips, buildings, museum displays and people talking about their past
- Consider why things may change over time
- Recognise some of the reasons why people in the past acted as they did. Ask questions e.g. what was different..?'
- Identify some of the basic ways the past can be represented e.g. through pictures
- Choose parts of stories and other sources to show what they know about significant people and events

Chronology

communities

- Recognise the distinction between past and present.
- Recognise that their own lives are similar/different from the lives of people in the past
- Identify some similarities and differences between ways of life at different times.

By the end of the unit, pupils should be able to answer:

- She was born in 1820, in Florence, Italy, which is how she got her name!
- Florence Nightingale was known as 'the lady with the lamp' because she helped to treat wounded soldiers equally during the Crimean War and made sure the hospital was clean.
- In 1883 Florence met Queen Victoria, who awarded her the Royal Red Cross medal to thank her for all of her hard work
- Florence Nightingale was a significant person because she was the founder of modern nursing, making hospitals safe and hygienic.
- In 1854, Florence
 Nightingale was asked to
 bring a team of 38 volunteer
 nurses to Crimea to care for
 wounded British soldiers

Year 3	Disciplinary (Second Order) Concept: Similarities and Differences Ancient Civilisations Overview -the achievements of the earliest civilizations - an overview of where and when the first civilizations appeared and a depth study of Ancient Egypt How much did Ancient Sumner, Shang and the Indus Valley have in common? Disciplinary (Second Order) Concept: Evidence	The achievements of the earliest civilizations (an overview) plus Ancient Egypt (in depth) Enquiry, Interpretation and Using Sources Use sources to address historically valid questions and hypotheses about change, cause, similarity and difference, and significance. Ask questions e.g. 'How did?' Why were?' 'What was important?' Recognise that our knowledge of the past is constructed from primary and secondary sources of evidence Recognise how sources of evidence are used to make historical claims. Ask questions such as, 'What might this tell us about?'	be able to answer: -Ancient Egypt is known for its magnificent and beautiful tombs such as Queen Nefertiti's tomb in the Valley of Queen's -Civilisation means a group of people living together in communities. - Early civilisations were built on a river for food, trade and keeping clean. -Nefertiti and her husband changed the Egyptian faith to worship one God called Aten. - Queen Nefertiti's was a female ruler during the wealtiest period of anicent Egyptian times.
		Use common words and phrases relating to the passing of time such as before, after, yesterday, past, last year, a long time ago Communication Use a variety of historical terms such as discovery, past, long ago etc. Use historical concepts such as now/then and same/different when making simple connections and noting contrasts Retell simple stories about people and events from the past Talk about who/what was significant/important in a simple historical account Events, People and Places	By the end of the unit, pupils should

	Ancient Civilisations -Depth Study of Ancient Egypt What does Queen Nefertiti's tomb reveal about her achievements of Ancient Egypt?	 Recognise why some events happened and what happened as a result. Ask questions such as, 'Why did?' 'What were the effects?' Describe some of the different ways the past can be represented e.g. through artists' pictures, museum displays, films and written sources. Identify historically significant people and events in different situations 	
	YouTube- Tomb of Nefertiti VR 360 video BLM Week~ Nelson Mandela	 (Nefererti) Chronology Place events into different periods using the appropriate historical terminology e.g. decade, century, ancient, Roman, Egyptian, BC, AD, CE, BCE etc. 	
		Communication Describe significant aspects of ancient history Talk and write about historical events and changes by selecting and organising historical information and dates Discuss historical issues and changes Use relevant and appropriate historical terms such as settlement, invasion, primary/secondary evidence, civilization, empire etc. Communicate historical findings through a range of methods including the use of timelines	
Year 4	Substantive Concept (First order): Migration Disciplinary (Second Order) Concept: Consequence	Events, People and Places -The Roman Empire and its impact on Britain Enquiry, Interpretation and Using Sources	By the end of the unit, pupils should be able to answer: -Boudica was a queen of the British Celtic Iceni Tribe who led an uprising

Romans - Boudica

- -the Roman Empire and its impact on Britain Examples (non-statutory) This could include:
- the Roman Empire by AD 42 and the power of its army
- -British resistance, for example, Boudica

What effects did the Roman Invasion have on Boudica and the Iceni tribe?

*Visit from Lancashire Outreach

BLM Week~ Michelle Obama

- -Use sources to address historically valid questions and consequences. Ask questions e.g. 'How did..?' 'Why were..?' 'What was important..?'
- -Recognise that our knowledge of the past is constructed from primary and secondary sources of evidence
- -Recognise how sources of evidence are used to make historical claims. Ask questions such as, 'What might this tell us about..?'
- -Recognise why some events happened and what happened as a result. Ask questions such as, 'Why did..?' 'What were the effects..?'
- -Describe some of the different ways the past can be represented e.g. through artists' pictures, museum displays, films and written sources.
- -Identify historically significant people and events in different situations

Chronology

- -Place events into different periods using the appropriate historical terminology e.g. decade, century, ancient, Roman, Egyptian, BC, AD, CE, BCE etc.
- -Explore main events, situations, changes and links within (and across) different periods e.g. differences/similarities between clothes, food, buildings or transport.

Communication

- -Talk and write about historical events and changes by selecting and organising historical information and dates
- -Discuss historical issues and changes -Use relevant and appropriate historical terms such as settlement, invasion,

- against the occupying forces of the Roman Empire.
- -Between 60-61AD, Boudica led a revolt against the Romans. Tribes marched to Colchester which was the capital of Roman Britain and defeated the Roman Legion there.
- -Romans invaded Britian in 43AD they then settled and ruled the country for 400 years until 410AD.
- -The Celts fought among themselves so much and as a consequence were unable to work together against the Romans.
- -There was widespread migration of the Roman Empire across Britian.

			primary/secondary evidence, civilization, empire etc.	
У	/ear 5	Substantive Concept (First order): Civilisation Disciplinary (Second Order) Concept:	Events, People and Places Ancient Greece - Greek life and	By the end of the unit, pupils should know:
		Similarities and Difference	achievements and their influence on the western world	-Ancient Greece was a civilization that dominated much of the
		Ancient Greece	Enquiry, Interpretation and Using Sources	Mediterranean between 700-480
		Ancient Greece - a study of Greek life and		BC.
		achievements and their influence on the western world	 Use a wide range of sources as a basis for research to answer questions and to test hypotheses 	-A city-state, or polis, was the community structure of Ancient
		How were city states different in Ancient Greece?	 Regularly address and sometimes devise historically valid questions about change and continuity, cause and consequence, 	Greece. - Two of the most powerful and
		*(Athens, Sparta)	similarity and difference, and significance. Ask questions such as, 'How did life change?' 'Why do we remember?' 'Why do people disagree?'	influential city-states were Athens and Sparta.
		BLM Week~ Jesse Owens	Recognise how our knowledge of the past is constructed from a range of different sources	- Athens is the heart of the Ancient Greek civilization.
		BLM Week Jesse Owens	 Evaluate sources and make inferences Choose relevant sources of evidence to support particular lines of enquiry 	-The citizens who lived in that region of Sparta were called
			Chronology	Spartans.
			 Identify where people, places and periods fit into a chronological framework by analysing connections, changes, trends and contrasts over time. 	
			Describe and make links between situations and changes within civilisations	
			Communication Present answers to historical questions and hypotheses by selecting and	
			organising relevant information using appropriate dates and terms.	

		Discuss historical issues acknowledging contrasting evidence and opinions Use appropriate vocabulary when discussing and describing historical events and concepts e.g. bias, reliability, democracy, parliament, peasantry and society Produce structured work that makes connections, provides contrasting evidence and analyses trend	
Year 6	Substantive Concept (First order): Childhood Disciplinary (Second Order) Concept: Historical Interpretations Vikings Edward the Confessor within the study of the Viking and Anglo-Saxon struggle -the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor Examples (non-statutory) This could include: - Viking raids and invasion - resistance by Alfred the Great and Athelstan, first king of England - further Viking invasions and Danegeld - Anglo-Saxon laws and justice - Edward the Confessor and his death in 1066 Is it fair to call all Vikings 'brutal invaders?'	Events, People and Places The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor Enquiry, Interpretation and Using Sources Use a wide range of sources as a basis for research to answer questions and to test hypotheses Regularly address and sometimes devise historically valid questions about change and continuity, cause and consequence, similarity and difference, and significance. Ask questions such as, 'How did life change?' 'Why do we remember?' 'Why do people disagree?' Recognise how our knowledge of the past is constructed from a range of different sources Give some reasons for contrasting arguments and interpretations of the past. Ask, 'Why have different stories been told about?' Describe the results of historical events, situations and changes e.g. the impact on people's lives Evaluate sources and make inferences	By the end of the unit, pupils should know: • Edward the Confessor was a Christian and later became known as Saint Edward the Confessor. • Although they Viking children didn't go to school, they learnt practical skills such as how to light a fire, how to ride a horse and how to row a boat. • Not all Vikings were warriors. Many came in peace and became farmers. • The lands that the Vikings occupied were known as Danelaw. • Around the end of the 8th century, Anglo-Saxon history tells of many Viking raids. These marked the start of a long struggle between the Anglo-Saxons and the Vikings for control of Britain.

		BLM Week~ Martin Luther King and The Transatlantic Slave Trade linked to Lancashire	Choose relevant sources of evidence to support particular lines of enquiry Recognise that some events, people and changes are judged as more historically significant than others Chronology Sequence events and periods using appropriate terms e.g. chronology, legacy, continuity, change, trends Identify where people, places and periods fit into a chronological framework by analysing connections, changes, trends and contrasts over time. Describe and make links between main events, situations and changes within and across different periods of time, as well as between short- and long-term timescales Communication Describe and explain significant aspects of non-European societies as well as settlements in Britain Discuss how Britain has influenced and been influenced by the wider world Present answers to historical questions and hypotheses by selecting and organising relevant information using appropriate dates and terms. Use appropriate vocabulary when discussing and describing historical events and concepts e.g. bias, reliability, democracy, parliament, peasantry and society	Edward the Confessor was born in 1014 and died in 1066 after being king of England for 24 years. Being king of England for 24 years.
<u>Subject</u>	Year Group	<u>Curriculum Links</u>	Skills	5 Key Knowledge Facts/Skills
<u>Science</u>	EYFS	Animals, including humans.	Pupils might work scientifically by: Encouraging scientific enquiry	By the end of the unit, pupils should know:

	 Talk about members of their immediate family and community. Name and describe people who are familiar to them. 	Classification	 Name and locate body parts such as head, arm, leg, heart and brain. How to stay healthy e.g. exercise, healthy eating, brushing teeth, sleep, less screen time. How humans can be different, e.g. hair colour, tall, short, freckles, bald. That fingerprints make us all unique. Who looks after them and helps them in the community.
Year 1	Animals Pupils should be taught to: Ill Identify and name a variety of common animals including some fish, some amphibians, some reptiles, some birds and some mammals. Ill Identify and name a variety of common animals that are carnivores, herbivores and omnivores (i.e. according to what they eat. Ill Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, and including pets). If ind out and describe how animals look different to one another. If oup together animals according to their different features. IRecognise similarities between animals: If the structure: head, body, way of moving, senses, body covering, tail. I Animals have senses to explore the world around them and to help them to survive. IRecognise that animals need to be treated with care and sensitivity to keep them alive and healthy.	Pupils might work scientifically by: • Compare and contrast animals at first hand or through videos and photographs. • Describing how they identify and group them. • Grouping animals according to what they eat. • Using their senses.	By the end of the unit, pupils should know: • A carnivore is a meat eating animal. • A herbivore is a non meat/plant eating animal. • An omnivore eats both meat and plants. • The common animal groups are fish, amphibians, reptiles, birds and mammals. • Animals are alive, move, feed, grow, use their sense and reproduce.

	Animals are alive; they move, feed, grow, use their senses and reproduce.		
Year 2	Animals Survival and Growth Pupils should be taught to: Notice that animals have offspring which grow into adults. Find out about and describe the basic needs of animals for survival (water, food and air). Find out about the life cycle of a frog. Notes and Guidance (non-statutory): Pupils should be introduced to the basic needs of animals for survival. They should also be introduced to the process of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. The following examples might be used: spawn, tadpole, frog; lamb, sheep.	Pupils might work scientifically by: Observing, through video or first-hand observation and measurement, how different animals grow Asking questions about what things animals need for survival suggesting ways to find answers to their questions. Describing the main changes as young animal offspring grow into adults (at least: between egg and adult bird; between egg and adult insect; between baby and adult mammal) (EYFS prior knowledge - the life cycle of a duck)	By the end of the unit, pupils should know: The basic needs of animals are, water food and air. Explain the life cycle of a frog. Including egg (frogspawn), tadpole, froglet, frog. Explain the life cycle of a butterfly. Name animals and their offspring. Cow, calf, sheep, lamb, horse, foal, tiger, cub, cat, kitten, etc. Animals are born in different ways. Mammals carry their offspring, reptiles and birds hatch from eggs.
Year 3	Light and Shadows Pupils should be taught to: Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces. Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Recognise that shadows are formed when the light from a light source is blocked by a solid object. Find patterns in the way that the size of shadows can change. (Monitor how shades change throughout the day)	Pupils might work scientifically by: Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.	By the end of the unit, pupils should know: We need light in order to see. There are different ways to protect your eyes from the sun e,g, sunglasses, sunhat. Shadows are formed when the light from the light source is blocked. Shadows change throughout the day due to position of the sun. Light reflects from the objects into your eyes in order from you to see.

Year 4	Electricity Pupils should be taught to: Didentify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.	Pupils might work scientifically by: • Observing/noticing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit.	By the end of the unit, pupils should be able to answer: • Common appliances run on electricity e.g. toaster, kettle. • Some appliances are
	Ildentify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors. Electricity can be dangerous. Electricity sources can be mains or battery. Batteries 'push' electricity round a circuit and can make bulbs, buzzers and motors work. Faults in circuits can be found by methodically testing connections. Drawings, photographs and diagrams can be used to represent circuits (although standard symbols need not be introduced until UKS2).		battery powered e.g. laptops, phones. simple series electrical circuit consist of its basic parts, including cells, wires, bulbs, switches and buzzers. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors.
	Notes and Guidance (non-statutory): Pupils should construct simple series circuits, trying different components, for example, bulbs, buzzers and motors, and including switches, and use their circuits to create simple devices. Pupils should draw the circuit as a pictorial representation, not necessarily using conventional circuit symbols at this stage; these will be introduced in Year 6. Note: Pupils might use the terms current and voltage, but these should not be introduced or defined formally at this stage. Pupils should be taught about precautions for working safely with electricity.		

Year 5	Pupils should be taught to: 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. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic (advantages and disadvantages).# Compare a variety of materials and measure their effectiveness (e.g. hardness, strength, flexibility, solubility, transparency, thermal conductivity, electrical conductivity). Temperature and Thermal Insulation Heat always moves from hot to cold. Some materials (insulators) are better at slowing down the movement of heat than others. Objects/liquids will warm up or cool down until they reach the temperature of their surroundings. Notes and Guidance (non-statutory): Pupils should build a more systematic understanding of materials by exploring and comparing the properties of a broad range of materials and relating these to what they learnt about magnetism in Year 3 and about electricity in Year 4.	Pupils might work scientifically by: • Carry out tests to answer questions such as 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?' • Compare materials in order to make a switch in a circuit.	By the end of the unit, pupils should be able to answer: • That some materials are better at slowing down the movement of heat. (The children should be able to give examples of this) • Heat always moves from hot to cold. • Objects/Liquids will warm up or cool down depending on the temperature of their surroundings. • Complete a fair test and compare a variety of materials and measure their effectiveness. Use vocabulary (hardness, strength, transparency, thermal conductivity) and understand their meaning.
	Note: Pupils are not required to make quantitative measurements about conductivity and insulation at this stage. It is sufficient for them to observe that some conductors will produce a brighter bulb in a circuit than others and that some materials will feel hotter than others when a heat source is placed against them.		
Year 6	Electricity Pupils should be taught to:	Pupils might work scientifically by:	By the end of the unit, pupils should know:

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
- **Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.
- III Use recognised symbols (at least: cells, wires, switches, bulbs, buzzers and motors) when representing a simple circuit in a diagram.

 IUSe/interpret circuit diagrams to construct a variety of more complex circuits predicting whether they will 'work'.

Notes and Guidance (non-statutory):

Building on their work in Year 4, pupils should construct simple series circuits, to help them answer questions about what happens when they try different components, for example, switches, bulbs, buzzers and motors. They should learn how to represent a simple circuit in a diagram using recognised symbols.

Note: Pupils are expected to learn only about series circuits, not parallel circuits. Pupils should be taught to take the necessary precautions for working safely with electricity.

- Systematically identifying [testing] the effect of changing one [thing] component at a time in a circuit.
- Designing and making [Create / Invent / Design] a set of traffic lights, a burglar alarm or some other useful circuit.
- Understand how the number of cells influence the brightness of a bulb or noise of a buzzer.
- The names of components that can be used in a circuit are cells, wires, switches, bulbs, buzzers and motors.
- Placements of components cause different outcomes in circuits.
- Understand that a broken circuit won't work and explain why.
- To represent a simple circuit in a diagram using the correct symbols. (cells, wires, switches, bulbs, buzzers and motors.)