

Redbrook Hayes Community Primary School

Connected Curriculum

Upper Key Stage 2

Survival: from stones to steel!

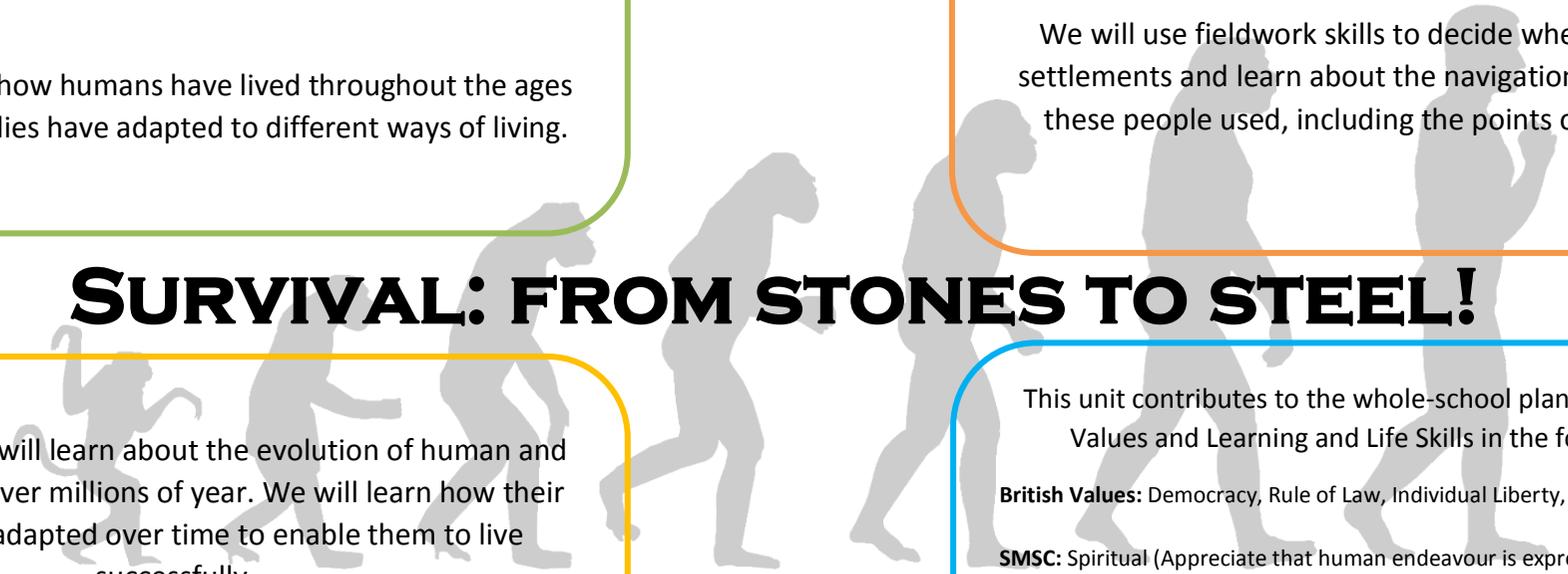
As **historians** we will learn about the chronology of human history from the beginning of the Stone Age, almost 2.5 million years ago, through the Bronze and Iron ages, right up to the present day.

We will discover how humans have lived throughout the ages and how our bodies have adapted to different ways of living.

As **geographers** we will learn about the landscapes that the Stone, Bronze and Iron Age people will have lived in.

We will use fieldwork skills to decide where to locate our settlements and learn about the navigation techniques that these people used, including the points of the compass.

SURVIVAL: FROM STONES TO STEEL!



As **scientists** we will learn about the evolution of human and animal species over millions of years. We will learn how their bodies have adapted over time to enable them to live successfully.

We will use this learning to create our own super-animals that are perfectly adapted to the different environments that they live in.

This unit contributes to the whole-school plans for SMSC, British Values and Learning and Life Skills in the following ways.

British Values: Democracy, Rule of Law, Individual Liberty, Mutual Respect.

SMSC: Spiritual (Appreciate that human endeavour is expressed in many forms, explain how feelings and emotions change over time); Moral (Demonstrate a variety of ways of resolving conflict, Understand the different roles undertaken by humans in different contexts); Social (find and talk about good examples of moral virtue, explore and discuss what justice means); Cultural (Explain my cultural heritage, debate cultural issues with understanding and sensitivity).

Learning and Life Skills: Working with others, It's up to me!

Other Opportunities:

Links to Literacy: The boy with the Bronze axe, Kathleen Fidler ; Stone Age Sentinel (newspapers)

Enhancement Opportunities: Kinver Edge (Rock Houses, Iron age Fort + field work opportunities); Tatton Park (Stone, Bronze, Iron age comparative study)



	Strand	Progression Statement	Working Towards Expectations	Meeting Expectations	Exceeding Expectations
Planning	a) Pupils can ask questions				
	b) Pupils can plan an enquiry	With prompting, plan different types of scientific enquiries to answer questions.	<i>Pupil can plan investigations using different types of scientific enquiry.</i>	<i>Pupil can, with support, can answer questions using evidence gathered from different types of scientific enquiry, e.g. comparing life cycles of different plants using change over time, surveys and secondary research.</i>	<i>Pupil can answer questions using evidence gathered from different types of scientific enquiry.</i>
	c) Pupils can identify and manage variables	With prompting, recognise and control variables where necessary.	<i>Pupil can set up comparative and fair tests.</i>	<i>Pupil can, with prompting, identifies and manages variables, e.g. when exploring falling paper cones.</i>	<i>Pupil can identify and manage variables.</i>
Conducting Experiments	a) Pupils can use equipment to take measurements	Select, with prompting, and use appropriate equipment to take readings.	<i>Pupil can, following discussion, follow guidance to use equipment, e.g. timer.</i>	<i>Pupil can, following discussion of alternatives, selects appropriate equipment, e.g. using a shadow stick and measuring length and angle of shadow.</i>	<i>Pupil can use appropriate equipment, such as meter rule, to take measurements, such as distance travelled.</i>
	b) Pupils explore how to improve the quality of data				
	c) Pupils understand the role of repeat readings	Take precise measurements using standard units.	<i>Pupil can recognises importance of using standard units and measures accurately.</i>	<i>Pupil can take measurements that are precise as well as accurate, e.g. measuring the force needed to pull different shapes of boat through the water.</i>	<i>Pupil can consider how by modifying instrument or technique , measurements can be improved.</i>
g Evidence	a) Pupils record work with diagrams and label them	Take and process repeat readings.	<i>Pupil can, with prompting, can take repeat readings.</i>	<i>Pupil can know how to process repeat readings, e.g. when timing falling objects.</i>	<i>Pupil can identify situations in which taking repeat readings will improve the quality of evidence.</i>

	b) Pupils can display data using labelled diagrams, keys, tables and bar charts	Record data and results.	<i>Pupil can use words and diagrams to record findings.</i>	<i>Pupil can start to use labelled diagrams to show more complex outcomes, e.g. comparing the time of day at different places on the earth.</i>	<i>Pupil can use labelled diagrams to show complex outcomes.</i>
	c) Pupils can display data using line graphs	Record data using labelled diagrams, keys, tables and charts.	<i>Pupil can use various ways to record evidence.</i>	<i>Pupil can, with prompting, use various ways to record complex evidence, e.g. when investigating how gears and levers enable a small force to have a larger effect.</i>	<i>Pupil can use various ways, as appropriate, to record complex evidence.</i>
Reporting Findings	a) Pupils process findings to develop conclusions and identify causal relationships	Use line graphs to record data.	<i>Pupil can, with prompting, use line graphs.</i>	<i>Pupil can use a line graph to record basic data, e.g. length and mass of a baby as it grows.</i>	<i>Pupil can use line graphs to display complex data.</i>
	b) Pupils use displays and presentations to report on findings	Report and present findings from enquiries, including conclusions and, with prompting, suggest causal relationships.	<i>Pupil can write a conclusion based on evidence.</i>	<i>Pupil can, with prompting, write a conclusion using evidence and identifying causal links, e.g. investigating what makes a parachute fall quicker.</i>	<i>Pupil can write a conclusion using evidence and identifying causal links.</i>
	c) Pupils explain confidence in findings	With support, present findings from enquiries orally and in writing.	<i>Pupil can present findings either in writing or orally.</i>	<i>Pupil can, with support, display and present key findings from enquiries orally and in writing, e.g. suggesting reasons for similarities and differences between various animals.</i>	<i>Pupil can display and present key findings from enquiries orally and in writing.</i>
Conclusions and Predictions	a) Pupils can analyse data	With prompting, identify that not all results may be trustworthy.	<i>Pupil can indicate individual results that might be suspect.</i>	<i>Pupil can, with support, indicate why some results may not be entirely trustworthy, e.g. when timing falling objects.</i>	<i>Pupil can, in conclusions, indicate how trustworthy they are.</i>
	b) Pupils can draw conclusions				
	c) Pupils can develop	Suggest how evidence can	<i>Pupil can, with prompting, show</i>	<i>Pupil can show how evidence</i>	<i>Pupil can identify how an idea is</i>

	investigation further	support conclusions.	<i>how evidence supports a conclusion.</i>	<i>supports a conclusion, e.g. researching gestation periods of various mammals and relating them to adult mass.</i>	<i>supported or refuted by evidence.</i>
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	Strand	Progression Statement	Working Towards Expectations	Meeting Expectations	Exceeding Expectations
Planning	a) Pupils can ask questions				
	b) Pupils can plan an enquiry	Plan different types of scientific enquiries to answer questions.	<i>Pupil can, with support, can answer questions using evidence gathered from different types of scientific enquiry.</i>	<i>Pupil can answer questions using evidence gathered from different types of scientific enquiry, e.g. operation of circulatory system from experiment, survey and secondary research.</i>	<i>Pupil can suggest which type of enquiry is likely to be more successful at providing answers to a particular question.</i>
	c) Pupils can identify and manage variables	Recognise and control variables where necessary.	<i>Pupil can, with prompting, identifies and manages variables.</i>	<i>Pupil can identify and manage variables, e.g. distances and sizes in shadow formation.</i>	<i>Pupil can identify and manage variables and recognises variables that cannot be easily managed.</i>
Conducting Experiments	a) Pupils can use equipment to take measurements	Take measurements using a range of scientific equipment.	<i>Pupil can, following discussion of alternatives, select appropriate equipment, e.g. measuring jug to measure volume.</i>	<i>Pupil can use appropriate equipment, such as meter rule, to take measurements, such as distance travelled by light.</i>	<i>Pupil can recognise limitations of available equipment, e.g. accuracy of balance.</i>
	b) Pupils explore how to improve the quality of data				
	c) Pupils understand the role of repeat readings	Take measurements with increasing accuracy and precision.	<i>Pupil can take measurements that are precise as well as accurate.</i>	<i>Pupil can consider how by modifying instrument or technique, measurements can be improved, e.g. when recording route of light rays.</i>	<i>Pupil can evaluate different techniques, with reference to accuracy and precision.</i>
Recording Evidence	a) Pupils record work with diagrams and label them	Take repeat readings when appropriate.	<i>Pupil can know how to process repeat readings.</i>	<i>Pupil can identify situations in which taking repeat readings will improve the quality of evidence, e.g. investigating the behaviour of components in a circuit.</i>	<i>Pupil can explain why repeatedly taking repeat readings is of little value.</i>

	b) Pupils can display data using labelled diagrams, keys, tables and bar charts	Record data and results of increasing complexity using scientific diagrams and labels.	<i>Pupil can start to use labelled diagrams to show more complex outcomes.</i>	<i>Pupil can use labelled diagrams to show complex outcomes, e.g. relating specific adaptations of organisms to environmental factors.</i>	<i>Pupil can explain why a labelled diagram may be particularly effective.</i>
	c) Pupils can display data using line graphs	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar charts.	<i>Pupil can, with prompting, uses various ways to record complex evidence.</i>	<i>Pupil can use various ways, as appropriate, to record complex evidence, e.g. in the construction of a key to aid plant identification.</i>	<i>Pupil can evaluate various ways of recording complex data.</i>
Reporting Findings	a) Pupils process findings to develop conclusions and identify causal relationships	Record data and results of increasing complexity using line graphs.	<i>Pupil can use a line graph to record basic data.</i>	<i>Pupil can use line graphs to display complex data, e.g. size of object in relation to the size of the shadow it casts.</i>	<i>Pupil can explain the advantages of using line graphs.</i>
	b) Pupils use displays and presentations to report on findings	Report and present findings from enquiries, including conclusions and causal relationships.	<i>Pupil can, with prompting, write a conclusion using evidence and identifying causal links.</i>	<i>Pupil can write a conclusion using evidence and identifying causal links, e.g. in the design of a periscope.</i>	<i>Pupil can suggest possible limits to causal relationships.</i>
	c) Pupils explain confidence in findings	Report and presents findings from enquiries in oral and written forms such as displays and other presentation.	<i>Pupil can, with support, display and present key findings from enquiries orally and in writing.</i>	<i>Pupil can display and present key findings from enquiries orally and in writing, e.g. deciding how well classifications fit unfamiliar animals and plants.</i>	<i>Pupil can evaluate the best way of displaying and presenting key findings.</i>
Conclusions and Predictions	a) Pupils can analyse data	Report and present findings from enquiries, including explanations of, and degree of, trust in results.	<i>Pupil can, with support, indicate why some results may not be entirely trustworthy.</i>	<i>Pupil can, in conclusions, indicate how trustworthy they are, e.g. in relating brightness of bulb to voltage supplied.</i>	<i>Pupil can, in conclusions, indicate, if appropriate, why the results may not be entirely trustworthy.</i>
	b) Pupils can draw conclusions	Identify scientific evidence that has been used to support or refute ideas or arguments.	<i>Pupil can show how evidence supports a conclusion.</i>	<i>Pupil can identify how an idea is supported or refuted by evidence, e.g. selective breeding to produce animals or plants with desirable characteristics.</i>	<i>Pupil can suggest how factors other than evidence may support or oppose an idea.</i>

	c) Pupils can develop investigation further	Use test results to make predictions to set up further comparative and fair tests	<i>Pupil can suggest further relevant comparative or fair tests.</i>	<i>Pupil can use evidence to suggest further comparative or fair tests that would develop the investigation, e.g. in the design of rear view mirrors for cars.</i>	<i>Pupil can evaluate which further comparative or fair tests would be particularly useful.</i>
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Big Idea	Progression Statement	Working Towards Expectations	Meeting Expectations	Exceeding Expectations
Biology				
1) Living things can be classified according to observable features	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals	<i>Identify the broad groups into which living things are classified, e.g. mammals.</i>	<i>Use similarities and differences in observable features to decide how living things should be grouped e.g. a cat is a mammal because it is warm blooded and gives birth to live young.</i>	<i>Explore why some living things, such as the duck billed platypus, don't neatly fit into one group.</i>
	Give reasons for classifying plants and animals based on specific characteristics	<i>State how plants and animals can be classified using specific characteristics.</i>	<i>Explain why certain features are useful in classifying living things, e.g. backbones in animals and flowers in plants.</i>	<i>Explain why other features are less useful as a basis for classification, such as size or colour.</i>
3) Living things exhibit variation and adaptation and these may lead to evolution.	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	<i>Recognise that fossils provide information about living things from millions of years ago, e.g. understand that they are preserved remains of extinct living things.</i>	<i>Use fossils as evidence that living things have changed over time, e.g. explain that these have died out and others have taken their place.</i>	<i>Suggest possible reasons for changes to living things over time, e.g. why penguins can't fly but are good at swimming.</i>
	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	<i>Recognise that living things produce offspring of the same kind, but normally offspring vary, e.g. that puppies have common features but are not identical.</i>	<i>Recognise that offspring normally vary from each other and from their parents, e.g. that puppies vary from each other and from their parents.</i>	<i>Recognise that selective breeding may result in offspring with certain features, e.g. pedigree dogs with a certain shape or colour.</i>
	Identify how animals and plants are adapted to suit their environment in different ways	<i>Identify ways in which certain animals and plants are adapted to suit their environment in</i>	<i>Describe examples of a living thing that has adapted to live in a particular habitat and evolved</i>	<i>Give examples of living things that have evolved in different ways, e.g. different types of</i>

	and that adaptation may lead to evolution	<i>different ways.</i>	<i>as a result, e.g. a polar bear or cactus.</i>	<i>finch.</i>
4b) Life exists in a variety of forms and goes through cycles – Animals	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	<i>Explain what a life cycle is, e.g. that kittens grow into cats, have kittens and die.</i>	<i>Identify similarities and differences in two different life cycles, e.g. sparrow and butterfly, with reference to eggs and intermediate stages.</i>	<i>Suggest similarities in the life cycles of a number of vertebrates, e.g. comparison of dog, human and bird embryos.</i>
	Describe the changes as humans develop to old age	<i>Identify that people change as they age, e.g. recognise differences in appearance, abilities etc.</i>	<i>Describe the changes as humans develop to old age, e.g. trends in changes to size, weight, mobility etc.</i>	<i>Suggest why some of the changes that take place in humans happen, e.g. suggest why babies have disproportionately large heads compared to adults.</i>



	Strand	Progression Statement	Working Towards Expectations	Meeting Expectations	Exceeding Expectations
Knowledge	The UK and local area	Identify the geographical regions and key topographical features of the United Kingdom (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time	<p><i>The child can locate and describe some physical environments in the UK, e.g. coastal environments, the UK's significant rivers and mountains.</i></p> <p><i>The child can locate the UK's regions and major cities.</i></p> <p><i>(E.g. Use a blank map to create a 'Highest, longest, biggest' challenge – locate the longest river and highest point of each country of the UK.)</i></p>	<p><i>The child can locate and describe several physical environments in the UK, e.g. coastal and mountain environments, and how they change.</i></p> <p><i>The child can locate the UK's major urban areas, knowing some of their distinct characteristics and how some of these have changed over time.</i></p> <p><i>The child can recognise broad land-use patterns of the UK.</i></p> <p><i>(E.g. Use a blank map to create a 'Highest, longest, biggest' challenge – locate the longest river and highest point of each country of the UK, as well as other categories the children develop on their own, e.g. waterfall, lake, city population.)</i></p>	<p><i>The child can locate and describe a range of contrasting physical environments in the UK, e.g. coastal, river, hill and mountain environments, and how they change.</i></p> <p><i>Locate, with accuracy, the UK's major urban areas, knowing their distinct characteristics and how they have changed over time.</i></p> <p><i>The child can identify broad land-use patterns of the UK.</i></p> <p><i>(E.g. Create a 'Top Trumps' game for other groups in the class for rivers, mountains in the UK, as well as other categories the children develop on their own, e.g. waterfall, lake, city population.)</i></p>

		<p>Use the eight points of a compass, four- and six-grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.</p>	<p>The child can use four-figure grid references.</p> <p>The child can use OS map symbols and atlas symbols.</p> <p>The child can use maps at different scales.</p> <p>The child can recognise that contours show height.</p> <p>(E.g. Contribute to a class display of a large-scale OS map of the local area to label with photographs and information about a local issue.)</p>	<p>The child can use four-figure, and find six-figure, grid references.</p> <p>The child can describe height and slope from a map.</p> <p>The child can read and compare map scales.</p> <p>(E.g. Use a large-scale OS map of the local area to annotate with photographs and information about a local issue.)</p>	<p>The child can use four- and six-figure grid references with ease and accuracy.</p> <p>The child can describe the shape of the land from contour patterns.</p> <p>The child can work confidently with a range of maps from large-scale street maps to 1:50,000 maps.</p> <p>(E.g. Use a large-scale OS map of the local area to annotate with photographs and information about a local issue linking these to a range of features on the map.)</p>
Fieldwork and investigation		<p>Use a range of methods including sketch maps, plans and graphs, and digital technologies.</p>	<p>The child can make a sketch map with symbols.</p> <p>The child can use digital maps to identify human and physical features.</p> <p>The child can present information gathered in fieldwork using simple graphs.</p> <p>(E.g. Research into how the local area is changing, using a selection of digital sources.)</p>	<p>The child can make sketch maps of areas using symbols, a key and a scale.</p> <p>The child can use digital maps to investigate features of an area.</p> <p>The child can present information gathered in fieldwork using a range of graphs.</p> <p>(E.g. Research into how the local area is changing, using a range of digital sources including historical maps, images and newspapers.)</p>	<p>The child can use digital maps to research factual information about features.</p> <p>The child can present information gathered in fieldwork using a range of graphs and other data presentation techniques.</p> <p>(E.g. Plan an investigation to find out how the local area is changing using a range of digital sources.)</p>

		<p>Use fieldwork to observe, measure, record and present the human and physical features in the local area.</p>	<p>The child can carry out fieldwork in an urban area and/or a rural area using appropriate techniques.</p> <p>(E.g. Carry out an enquiry to investigate how sustainable one aspect of the school's work is. Collect evidence as suggested from surveys, photographs and interviews, and present findings to the head teacher and school council.)</p>	<p>The child can plan and carry out a fieldwork investigation in an urban area and/or a rural area using appropriate techniques.</p> <p>(E.g. Plan and carry out an enquiry to investigate how sustainable one aspect of the school's work is. Collect evidence from surveys, photographs and interviews, and present findings to the head teacher and school council.)</p>	<p>The child can design, plan and carry out a fieldwork investigation in an urban area and/or a rural area using appropriate techniques.</p> <p>(E.g. Design, plan and carry out an enquiry to investigate how sustainable one aspect of the school's work is. Collect evidence from surveys, photographs and interviews, and present findings to the school's governing body.)</p>
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	Strand	Progression Statement	Working Towards Expectations	Meeting Expectations	Exceeding Expectations
	2. Sequencing the past	Develop chronologically secure knowledge and understanding of British, local and world history.	Learner can sequence with some independence many of the significant events , societies and people within topics covered using appropriate dates, period labels and terms. <i>E.g. Place many of the important Greek developments, people and events on an annotated timeline.</i>	Learner can sequence with independence the key events , objects, themes , societies and people in Upper Key Stage 2 topics covered using dates, period labels and terms. <i>E.g. Select from a range of material and sequence using appropriate labels and dates (such as 'Classical') many of the main Ancient Greek developments, people and events.</i>	Learner can explain independently the sequence of key events , objects, themes , societies and people in topics covered using dates, period labels and terms accurately. <i>E.g. Explain variations in Greek life in different places and over time using a range of dates and period labels.</i>
Historical Concepts	3. Change and development	Address and devise historically valid questions about change, similarity and difference. Note connections, contrasts and trends over time.	Learner can provide valid reasons why some changes and developments were important within particular Upper Key Stage 2 topics. <i>E.g. Decide why one change in communication is of particular importance.</i>	Learner can compare similarities, differences and changes within and across some topics, e.g. in terms of importance, progress or the type and nature of the change. <i>E.g. Provide some similarities and differences affecting different forms of communication.</i>	Learner can compare independently how typical similarities, differences and changes were. <i>E.g. Identify and explain whether some developments in communication were exceptional developments or commonplace everywhere at the time.</i>