Curriculum Visions

The Stone Age

Key to interactive features
Press Teacher's Resources box right to go straight to Contents page.
Click on any item in the Contents to go to that page.
You will also find yellow arrows throughout that allow you to:

- 1A go to worksheet
- go back to previous page
- go forward to next page
- C go back to contents
- A go back to list of activities

Teacher's Resources

Multimedia resources can be found at the 'Learning Centre':

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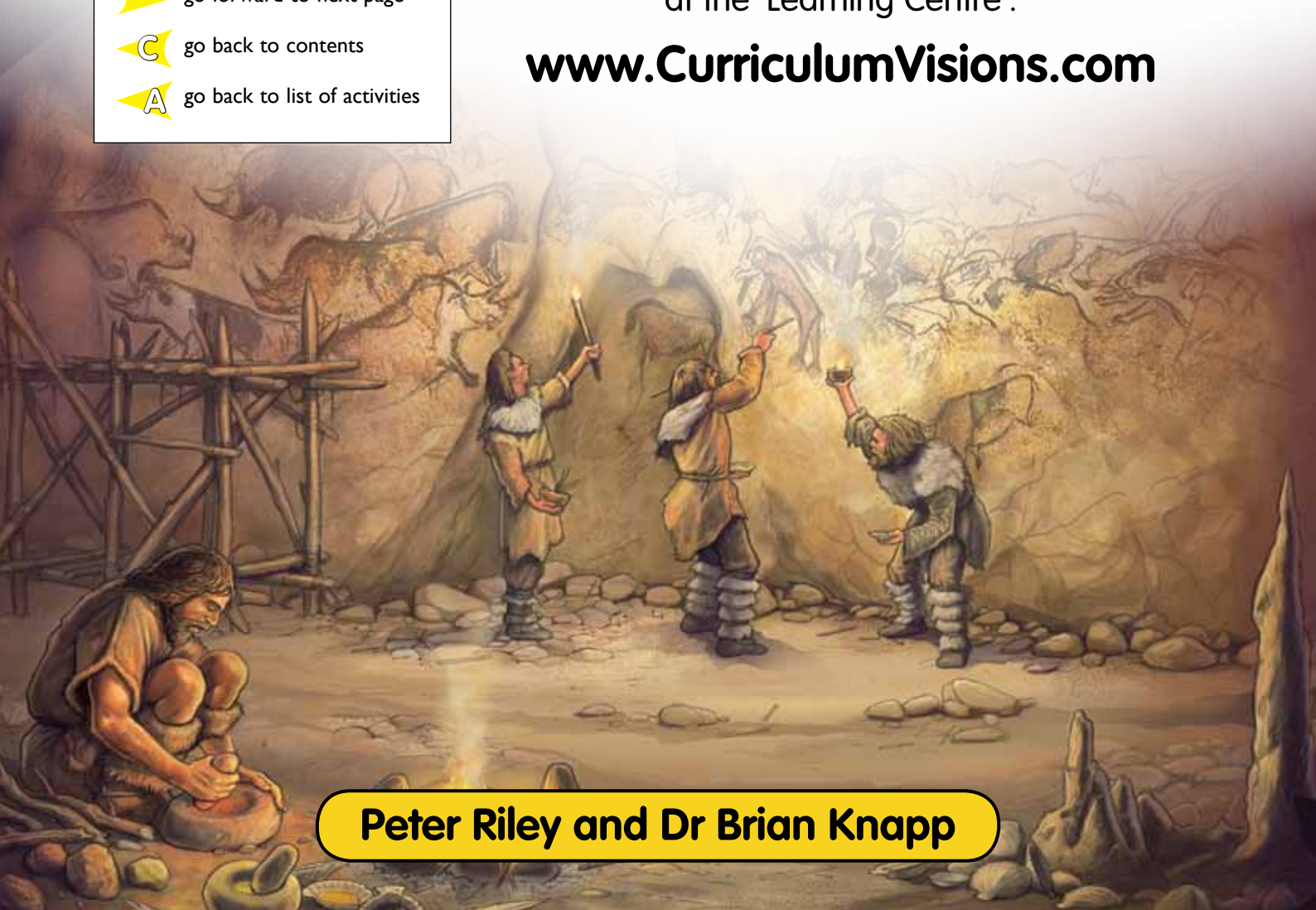

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Curriculum Visions

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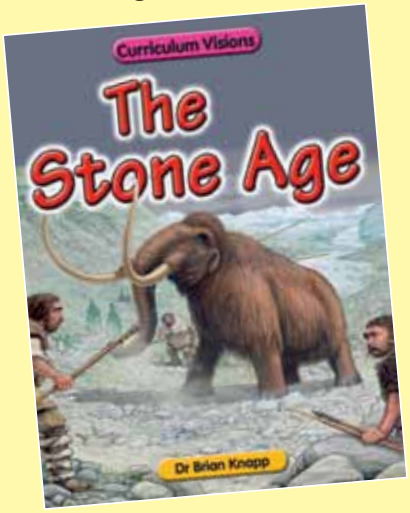
Section 1: Resources

Welcome to the Teacher's Resources for 'The Stone Age'.

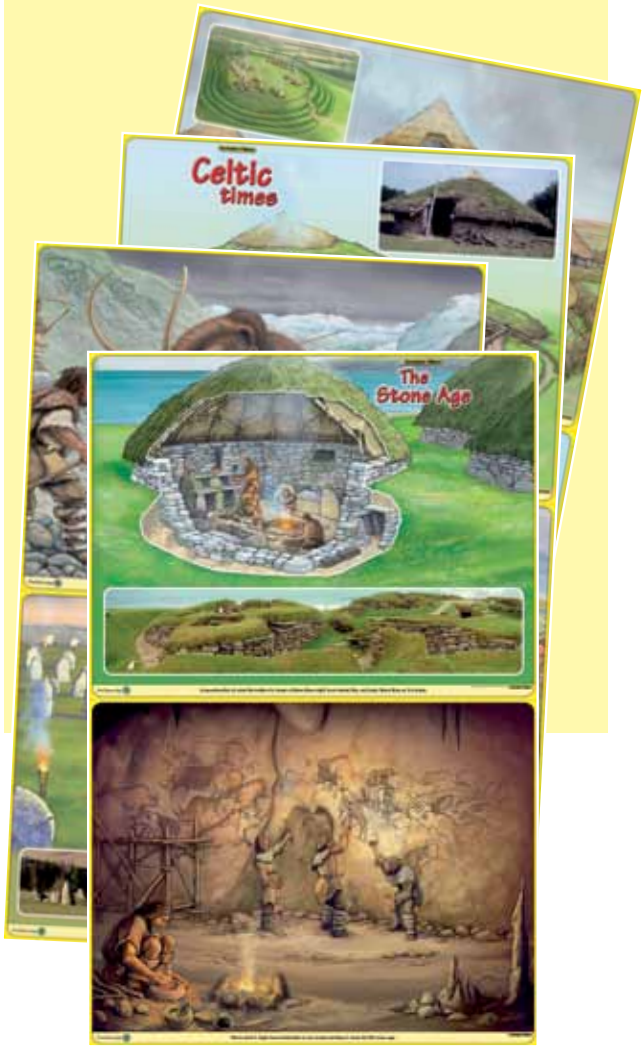
The Stone Age resources we provide are in a number of media:

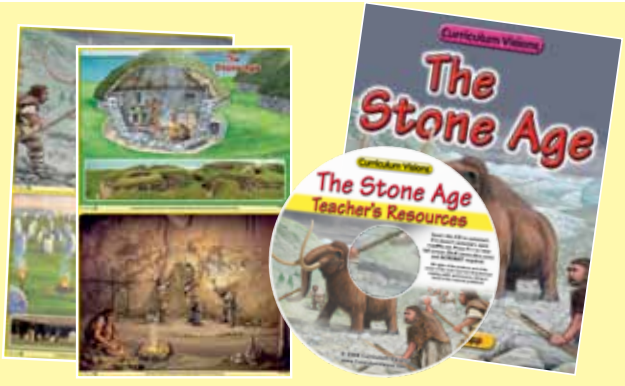
1. The 48 page Curriculum Visions 'The Stone Age'.



2. The other pre-history 48 page title, 'Celtic times'.

3. The Stone Age and Celtic times PosterCard Portfolio – key photographs and illustrations on two folded, double-sided and laminated sheets.





4. You can buy the Stone Age pack that contains 1 copy of the book and PosterCard Portfolio, and the Teacher's resources (what you are reading).

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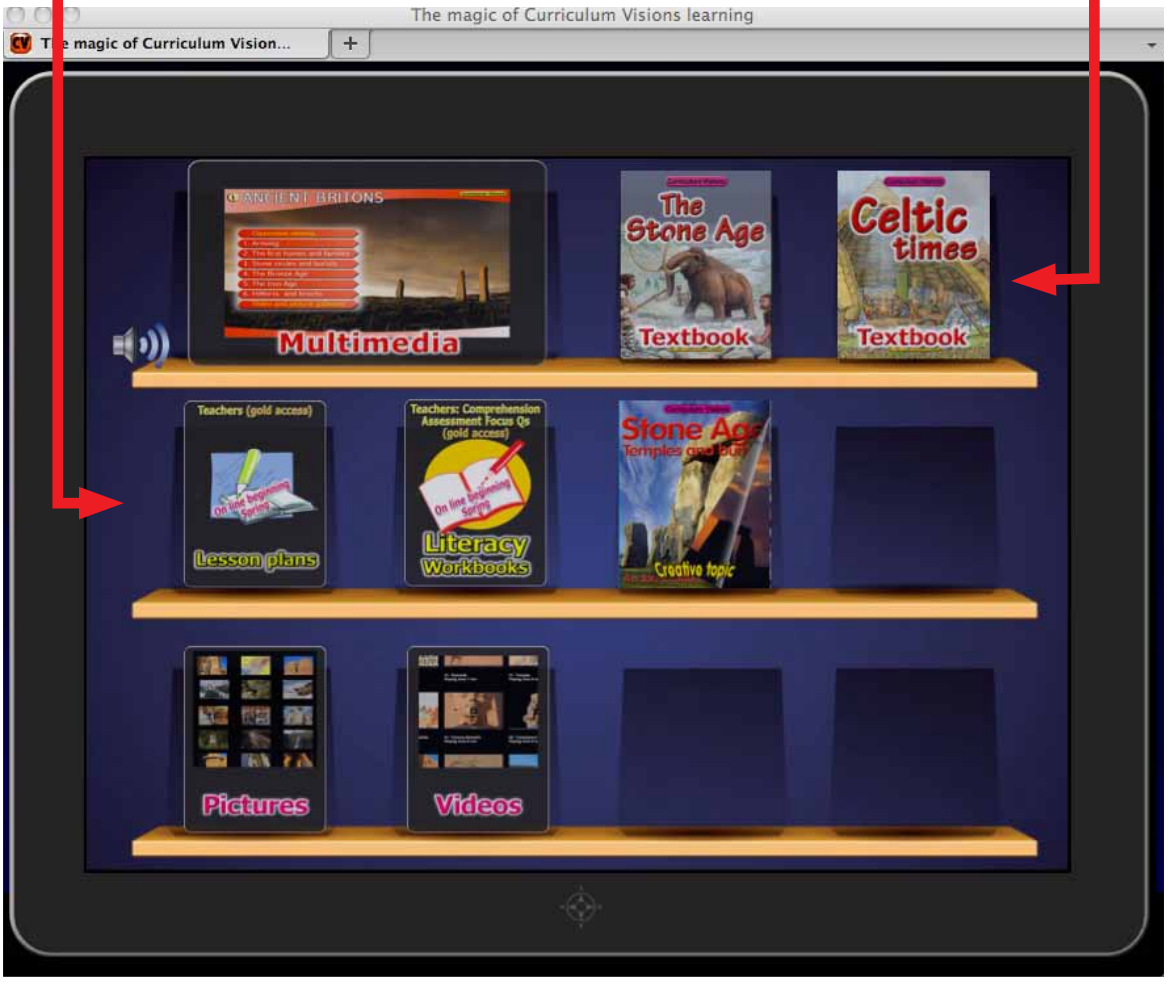
Our Learning Centre at
www.curriculumvisions.com
has almost everything you need to teach your primary curriculum in one convenient Virtual Learning Environment.

You can use support videos, e-books, picture and video galleries, plus additional Creative Topic books, graphic books called Storyboards, and workbooks. Together they cover all major curriculum areas.

All topics are easily accessible, and there is a built-in context search across all media.

You can also use our printed student books online as part of your subscription to the Learning Centre. There page-turning versions of every printed Curriculum Visions book for use on your whiteboard.



▼ The Ancient Britons home screen

▲ 'Classroom cinema' video

▲ Web site page

▶ Web site caption

Please note: screens are subject to change from those shown here.

Section 2: The student book explained

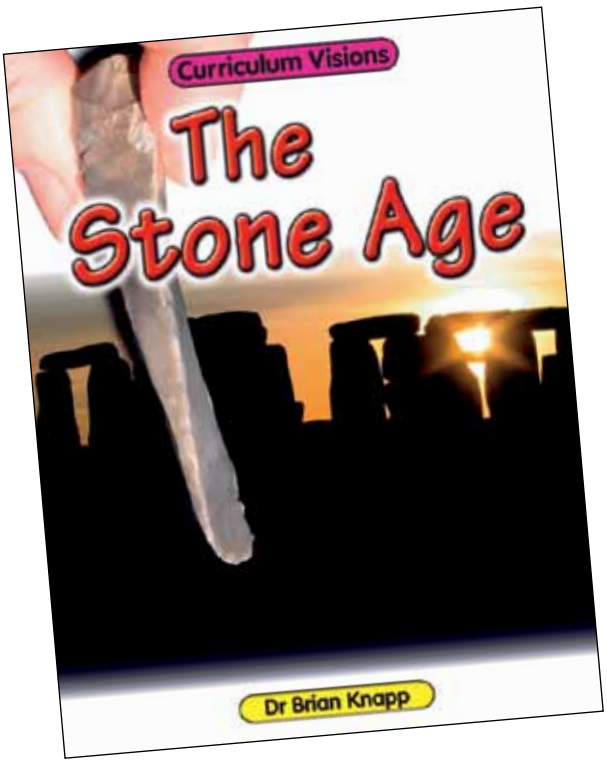
Although the student book – *The Stone Age* – is clear and simple, a great deal of care and thought has been given to the structure and the content of each double-page spread. The worksheets in section 3 of this *Teacher's Resources* also link to the topics covered in the student book.

It is possible to use *The Stone Age*, and section 3 of the *Teacher's Resources*, without reading this section, but we would strongly recommend that you take a short time to familiarise yourself with the construction of the student book.

The Stone Age covers the period from the first arrival of mankind about three quarters of a million years ago, to the end of the period in which tools were made only using stone.

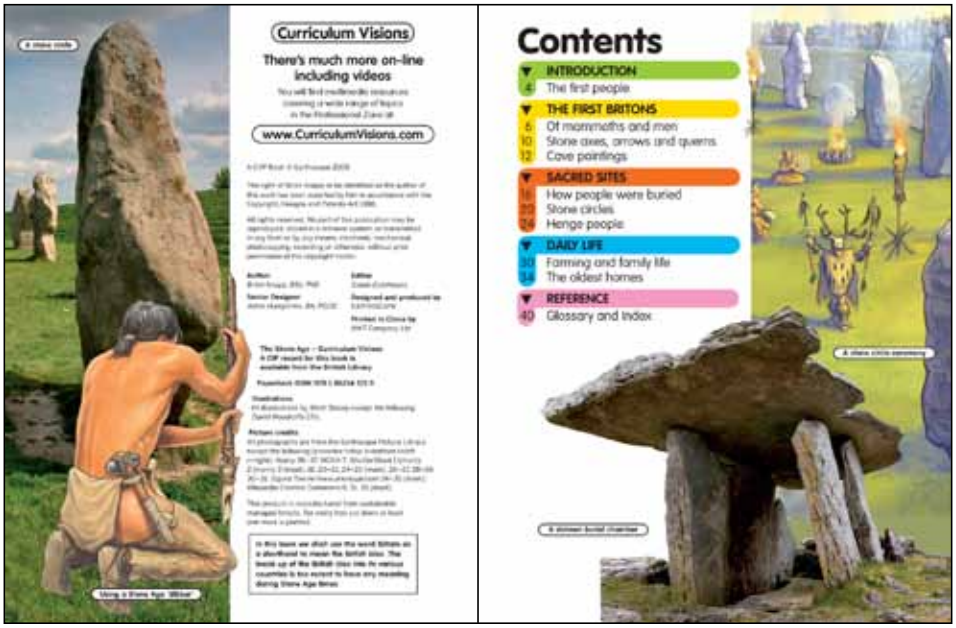
It is a very long period in which there were few people. It was also an interrupted time, for glacial advances pushed people out of all but the southernmost part of Britain.

But it was a truly important time for, with the end of the last glacial advance, the people who returned were not the Neandertals who had previously retreated before the oncoming ice, but the people (*Homo Sapiens*) who would be our true ancestors.



▲ ***The Stone Age* title page.**

Contents



The book is organised into chapters and subdivided into double-page spreads. Chapters are shown on the contents page and are colour-coded. Matching coloured headers run across each spread.

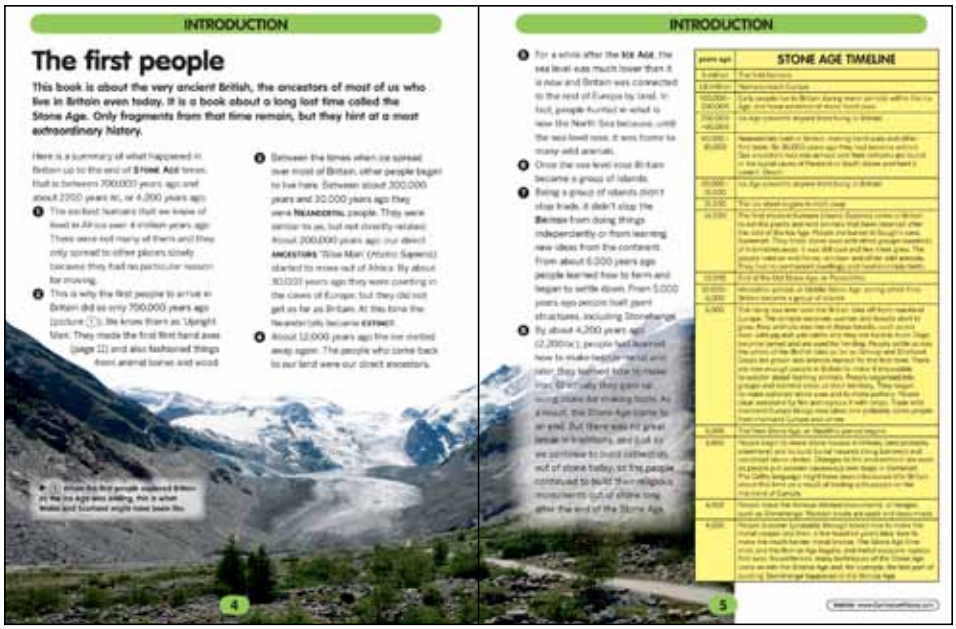
Each spread has a heading, below which is a sentence that sets the scene and draws out the most important theme of the spread. The main text of the page then follows in straightforward, easy-to-follow, double column format.

Words highlighted in **BOLD CAPITALS** in the student book are defined in the glossary on page 40. The majority are technical words important to the subject, but some are simply difficult words.

The glossary words are highlighted on the first page where they are encountered. They may be highlighted again on subsequent pages if they are regarded as particularly important to that page or spread.

Chapter 1: Introduction

The first people (pages 4-5)



The Stone Age is usually defined as the time during which stone tools were the only tools available. As a result, it does not have a fixed end date, and the date changes from place to place over the world. In Britain, however, this means the time from the first occupation of the land to the time when bronze was used for tools about 4,200 years ago.

Students should be told that all of the dates from this ancient time are rough guides to when things happened, and should not be taken too strictly. In Stone Age times an innovation in one place might take hundreds of years to spread to another place in the country. But what the time line does allow us to do is to put things in order reasonably well. As you will know, there have been many advances in archaeological knowledge over the last few years and many old theories are being revised. In this book we have tried to retain the best of the old and modify it with new ideas, but there is no doubt that the ideas here will not be identical to those in books published just a decade ago. Students should know that this is an exciting and evolving period of study.

This spread introduces students to the idea of the timespan that people have been settled in Britain. One thing that they start to understand from this is that Britain was populated rather later than most other places, as we were on the periphery of the landmass of Europe. In any case, remains of occupation have been identified for about three quarters of a million years.

This is a long time, and spans interglacial periods and glacial episodes. During this time sea levels rose and fell, making it possible for people to walk from mainland Europe to Britain. So there was no need for boats as there is today.

Students also find out that there were several types of human being during the Stone Age. One of these is Neandertal man (or Neanderthal, if you prefer). It was named after the Neander Tal in Germany and then latinised to *Homo Neanderthalensis*. We are not direct descendants of Neandertals, although we lived alongside them. It has been suggested that they were simply wiped out by *Homo Sapiens*, although the evidence for this is pretty non existent. However, it was *Homo Erectus* who first came, then retreated due to ice, then *Homo Neanderthalensis* who returned, and finally *Homo Sapiens* (us) who returned after the last glacial episode.

The spread also introduces one of the main themes of the book and that is of identity and roots. Britain has been inhabited for a very

long time and, as most people now believe, the people who arrived after the last period of glaciation are still with us in terms of the DNA in the majority of the population. As we shall see, we may have added some genes from a few trading Celts, Romans, Saxons and Vikings here and there, but the majority of genes of most people are far older.

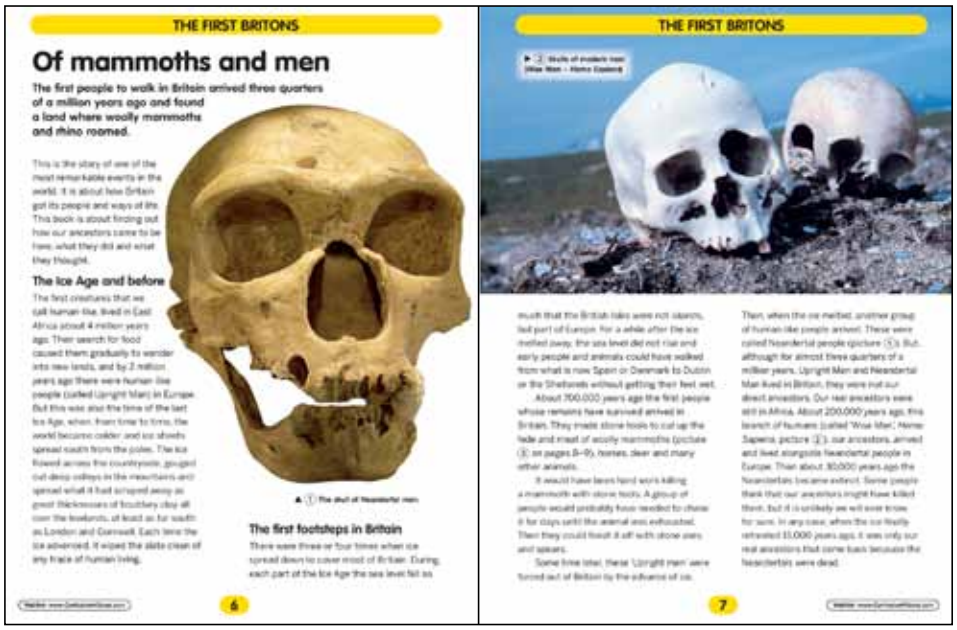
It might be worth discussing with students how this might be (and why it is also true for peoples on other continents). The original population was very small, but it had grown to be substantial by the time other peoples began to trade or conquer. As a result, even conquerors were completely outnumbered by the resident population and could only have a small effect on the gene pool. The more people there are, the harder it is for any outside influence to affect it. Only with the arrival of millions of people in recent years might this change.

Finally, students might want to know where remains were found and why. Any remains from pre-glacial periods are found in the extreme south of Britain because if (as is probable) people lived further north, their remains would have been lost as ice sheets swept down during glacial episodes. These glacial episodes never reached the extreme south, allowing some preservation of remains.

As the ice retreated, it is the south that was habitable first, so even post-glacially, the oldest remains are in the south.

Chapter 2: The first Britons

Of mammoths and men (pages 6–9)



This spread is a development of the early part of the summary that was presented on pages 4–5.

The illustrations show the skulls of *Homo Neanderthalensis* and *Homo Sapiens*. Students can clearly see that they are a different shape. This is most easy to show by looking at the brow above the eye sockets. However, these two spreads (which should be looked at together) are mostly about strategies of living.

This is an excellent moment for students to think about how they would survive with almost nothing in the Stone Age. Many animals were too big or too fast to catch. They have not invented the bow and arrow; they have not developed weaving or any kind of net making.

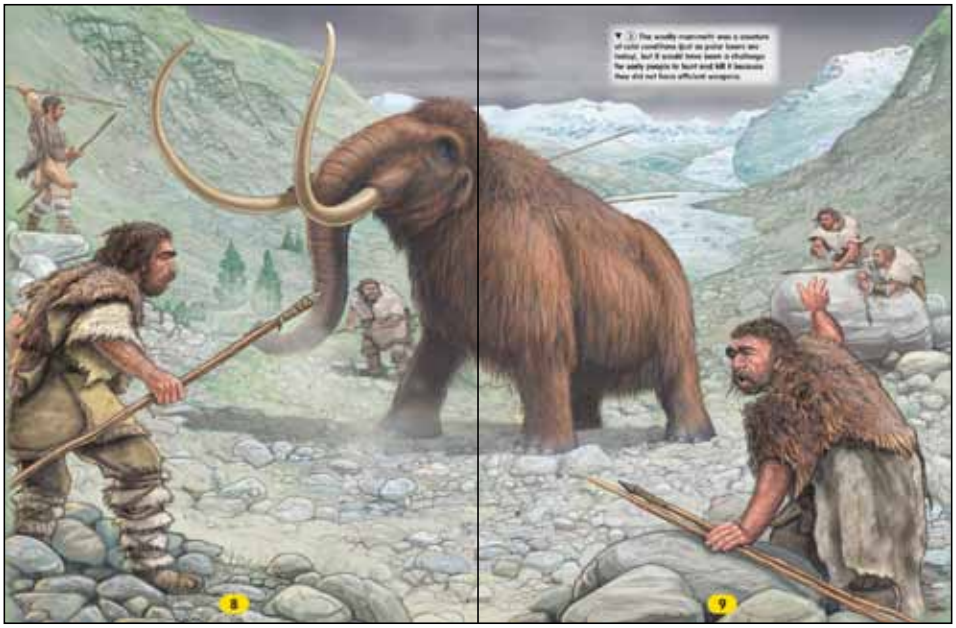
So how would they have lived in Palaeolithic and Mesolithic (Old and Middle Stone Age) times? You can't easily hunt and catch, so your best strategy is to live in a different way. You are effectively a vegetarian.

To illustrate this, bring in to the lesson examples of plants that you have purchased at a supermarket. They should be indigenous rather than exotic things. You might show them a potato and remind them that it is not indigenous. They can try to find out which ones are.

Students can comment on which ones they could eat straight away without any preparation. There are obvious examples such as apples and pears. From this you can explore the idea of how plants grow (cross-link with science) and comment that apples are fruits that are only found at one time of the year and which generally do not keep. They also do not represent a balanced diet, which is another cross-link with science.

At this point you can develop the idea in a number of ways: you can ask how they lived all year when the fruits only last a short time. You can show them nuts and explain how these last longer. Berries also last longer and, for example, holly berries soften as they age. But can people eat holly berries? This introduces another idea – that only some forms of plant are to people's liking and also palatable. So, for example, although there is plenty of grass about, we can't make use of it.

By now students may be feeling that the early Stone Age people had a really tough time – and of course they did. But, just like us, they learned from experience. Remember that the earliest people came from tropical regions where seasonal shortages were not important. (Cross-link to geography and weather around



the world). As they moved further north, they would have learned new strategies slowly. They would not have had to face them all of a sudden.

It might be worth showing students a carrot. This is a root vegetable which lasts all year and can be eaten raw. So there are now fruits, nuts, berries and roots that can be eaten. Students may start to realise that the list is getting longer, so there might be hope for Stone Age people after all!

Students today are used to variety. No one in the past was used to variety, not even people in the 1930s or 1940s. People would eat the same thing day after day because that was what was around. Our range of foods is quite extraordinary and is not typical of the vast majority of the history of people.

You can add mushrooms, peas and beans to the list and also ancient kinds of onion, cabbage and beet. But now it gets tough. Some of the things we eat as a source of carbohydrate cannot be eaten raw or eaten easily. Perhaps students can think of an example. In this way you may come around to cereals, whose grains have a hard 'skin' which must be broken down to release the nutritious material inside. And even then, although you can eat raw flour, it is better eaten cooked. In this way students learn that experience over the ages is important and that people build on the experience handed down to them from others.

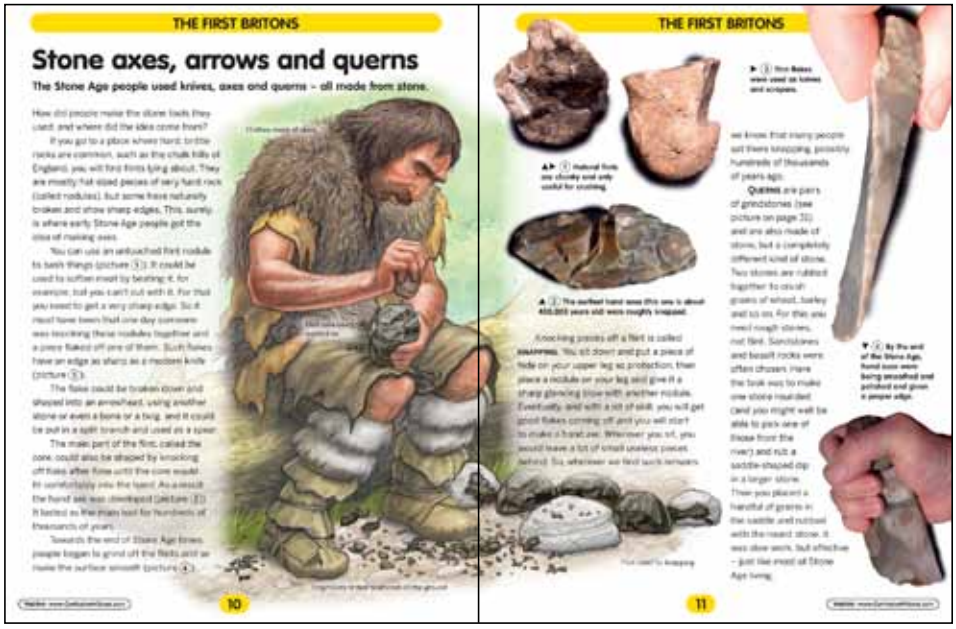
So now we come to meat. Meat is a good source of food, but also a good source of material to keep warm. There is no doubt that people did hunt mammoths and other animals. It is simply that they could not rely on them as a primary source of nutrition. They had to be supplemental. They also had very poor tools to do the job and so could realistically not count on hunting in the way we might today. But teamwork would result in the rather messy business of harrying a quarry until it became exhausted, and then killing it. Something like a mammoth, a bison or any other large animal, would give materials that could be used in many ways. Skin and fur could be used for clothing and bedding. Bones could be used as tools, as pins to hold skins together. The sinews could be used to make a form of string. Meat could also be eaten raw.

Fire has been known about for at least one and a half million years (ancient hearths dated in Africa). So all of our ancestors knew about fire, how to make it and how to control it. So they could have cooked meat, they could have baked bread and so on.

One way to make fire is to use a bow drill to spin a stick and achieve sufficient heat to ignite wood shavings, but this is far harder to achieve than with flint and steel. Notice that flints alone do not work. A flint has to be struck against an iron mineral whose sparks become hot as they react with oxygen as they fly through the air.

So, as you can see, looking at the survival strategies of Old Stone Age people is much, much more than hunting mammoths, but you can tease this out of students, starting with the dramatic picture on pages 8–9.

Stone axes, arrows and querns (pages 10-11)



This spread follows on from the strategies that you might have discussed on the previous spreads. The idea here is how to make effective tools and weapons in order to make life easier. There is no reason to stick to the flints illustrated here. You can turn this into a practical (with suitable thought to health and safety) by showing students how a stick can be used to pummel materials, for example, softening meat before eating it. But if you can somehow shave off parts of the end and create a point, you can use it as a weapon as well as a tool.

You may wish to discuss the pros and cons of a wooden stick. Unless the wood is very hard, the end will soon burr over. But then there are plenty more sticks about. You may want to think about wood in the context of hardness of materials (cross-link to science) and find out how hard a stick is compared to other things.

The idea of testing materials, of brittleness and so on all belong to science materials, but they can be introduced to students in the context of the Stone Age. You don't have to use a flint to show that materials can be brittle. A piece of chocolate will do and it is more attractive to eat as a reward. But the chocolate shows that being brittle is not a sufficient condition, and that to be a tool, a material has to be hard as well as brittle.

Which leads us on nicely to stone tools and the business of flint knapping.

Here is an opportunity to talk about craftsmanship and experience, as well as talking about geography, for flints and similar materials have a very restricted distribution. Because of this, some places had flints and others did not, so the concept of trade can be brought into the picture. Trade means long distance paths and so on.

There is a video showing the many types of flint hand axe on the web site for those with access to the Professional Zone (www.curriculumvisions.com). It includes examples of hand axes 400,000 years old as well as more refined axes some 12,000 years old.

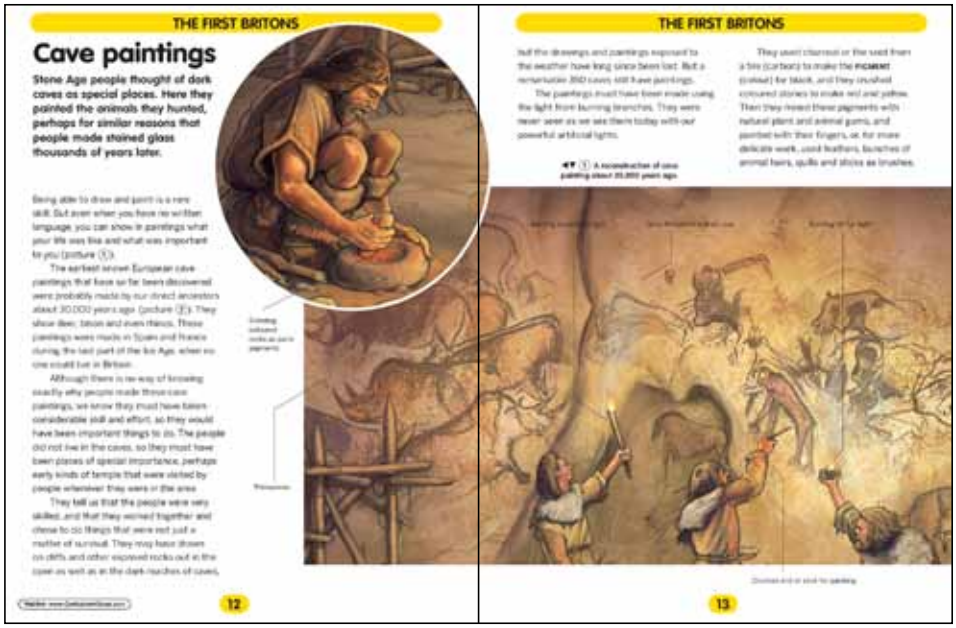
Flints were clearly important as arrowheads and especially as scrapers, so get students to look at the different kinds of shape of flint tool to see how they must have been used for different purposes. Scrapers/cutters would have had a blade-like shape.

But we must not forget the other important use of stone, and one that does not require the stone to be hard, brittle and shiny – in fact, quite the reverse.

Rubbing two rough stones together with some cereal grains releases the flour. The pair of stones is called a quern. Students could think about the best shape for a pair of quern stones. Somehow the cereal grains must not fly away when the stones are rubbed together and the flour has to be collected. Both of these two requirements can be met by hollowing one stone and rolling a smaller stone in it. These

are called saddle querns. (There are other ways of doing this, as shown in the book on *Celtic times*). Sandstones are the best rocks for this purpose because the rough surface helps to abrade the husk of the cereal grain. So here again is an example of a specific material occurring in some locations and not others, and hence another element of trade.

Cave paintings (pages 12–15)



This topic represents an amazing opportunity to combine art, history, design and technology, and science. The pictures in the book are based on the Chauvet Cave, but all others are similar.

Cave paintings are old, with the most famous being around 30,000 years. There are a number of themes to draw out. First, why did they bother to paint in caves, that is did they only paint in caves or did they paint in other places as well, but the others being out in the open have been lost due to weathering? If you look at petroglyphs around the world, it seems quite common to paint on exterior locations, so we can expect there was far more decoration than has been preserved. It may be that caves were special places, possibly connected to the underworld, mother Earth and so on. But it is probably the case that these were not the only places where art was practised and so we should not think that they chose only caves. It is as with other bits of archaeology: special conditions are needed to preserve anything over long periods of time, but that does not imply that those were the only places.

The whole business of painting requires communal effort. People had to agree that the things they painted had some interest or value. So this is an opportunity to show students how society must have developed to a point where appreciation of art was possible, perhaps for religious purposes, perhaps for something else.

The topics chosen were mostly of animals. Students might like to think why this might have been. The animals could have been revered as beautiful things; they could simply be the things they caught and ate; it could have been because they were hard to catch and so represented achievements of the hunters. They could also have been religious objects. It would be worth brainstorming as many possibilities as you can.

Then there is the art itself. These are amazingly skilled drawings. Someone would have had to have studied the animals in order to draw then. Most were outlined first and then coloured in. You may want to show students how this is done, and how a hard outline is important. You may also wish to make a cave wall in your classroom, covered with paper (perhaps crinkled to make it more cave like) and pinned up for students to try cave painting.

How did they paint at high levels? This required a structure to stand on. How was it held together?

In the cave they needed a source of lighting. Oil lamps were certainly in use about 10,000 years ago, but no-one knows when the first use was made of oil. Fires and burning embers are more likely possibilities. Students

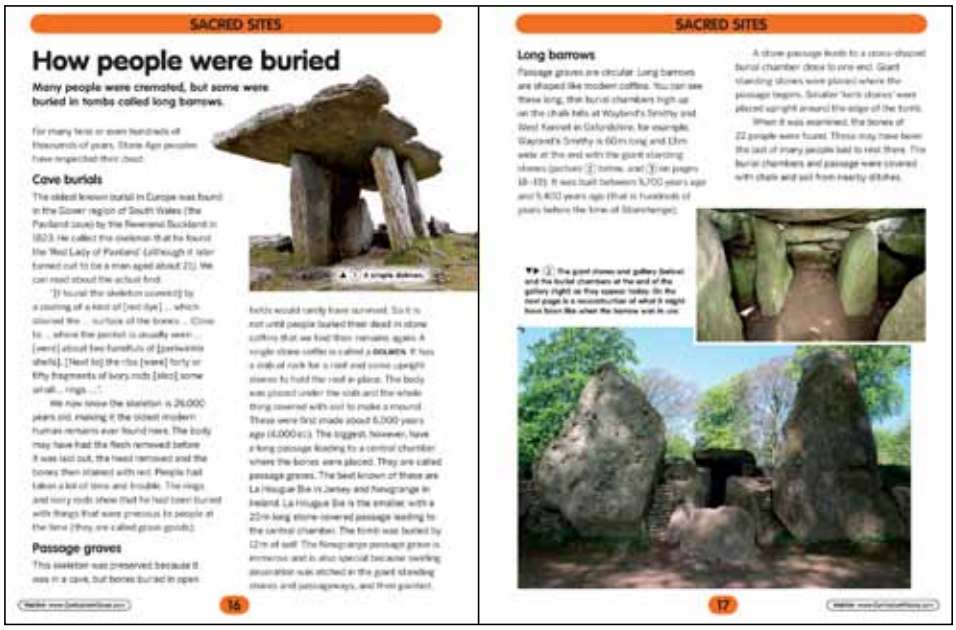
should discuss how fires were made and what kind of light a fire gives out. How would you paint in semi-darkness and how much light would you need? These are all good science questions to which you can find experimental answers by darkening a room and using torches, switching on more and more until you get enough light to work by.

You can also discuss where paints came from. The simplest to think about is charcoal, which needed to be no more than the embers from the hearth. It was used for outlines. There are also plant dyes. To demonstrate this you may care to use a beetroot to show that plant dyes can be strong and reasonably permanent. Some plants release coloured dyes when they are boiled.

You can also explain about paints, and the fact that they consist of a pigment (the colouring matter, for example crushed stones), a carrier (the liquid they are mixed with in order to apply them to the wall) and a binder (the adhesive that makes the pigment stick). Carrier and binder can be the same thing, Explain that paints need to go through two stages. First the paint dries, usually because the carrier or part of the binder evaporates. Then what is left undergoes a chemical change (actually it bonds together) and so becomes stable. Lots of science here. When a paint smells, you are smelling the carrier evaporating.

Finally there is the matter of the brushes used. Some paints were spat on to the surface, but others were put on using feathers, crushed stick ends and so on. Students might be encouraged to see in what different ways they can design brushes as part of Design and Technology.

How people were buried (pages 16–19)



There is a lot to consider here. We cover everything from cremation pits to dolmens to long barrows. We also attempt a reconstruction of what a burial ceremony was like.

Burial sites are among the most important of all the things that we can find to tell us about the early Stone Age. That is because Stone Age people took at least some of their burials very seriously. We are not sure how most people were buried, for we have only a small number of burial sites to go on, and those represent a huge amount of work, so we can imagine they belonged to those with the most power and influence – chiefs.

The oldest remains we have are of people buried in caves. If students add this information to the information about cave painting, they may put both ideas together and think that some caves were places of ritual and respect, that is religious sites.

Did the idea of cave burial survive? Not in caves as such, but by about 6,000 years ago, we find people being buried out in the open but protected with cave-like stones. There was a huge slab stone held up by several uprights. It is called a dolmen. You might ask students to imagine how this was made because the stones might weigh getting on for a tonne. It is a problem we will come back to on a much grander scale with respect to Stonehenge.

Many dolmens are on the tops of broad hills, suggesting that a high place was an important aspect of burial. It is also likely that the body would have been placed under the capstone and then the whole thing covered in soil to make a mound.

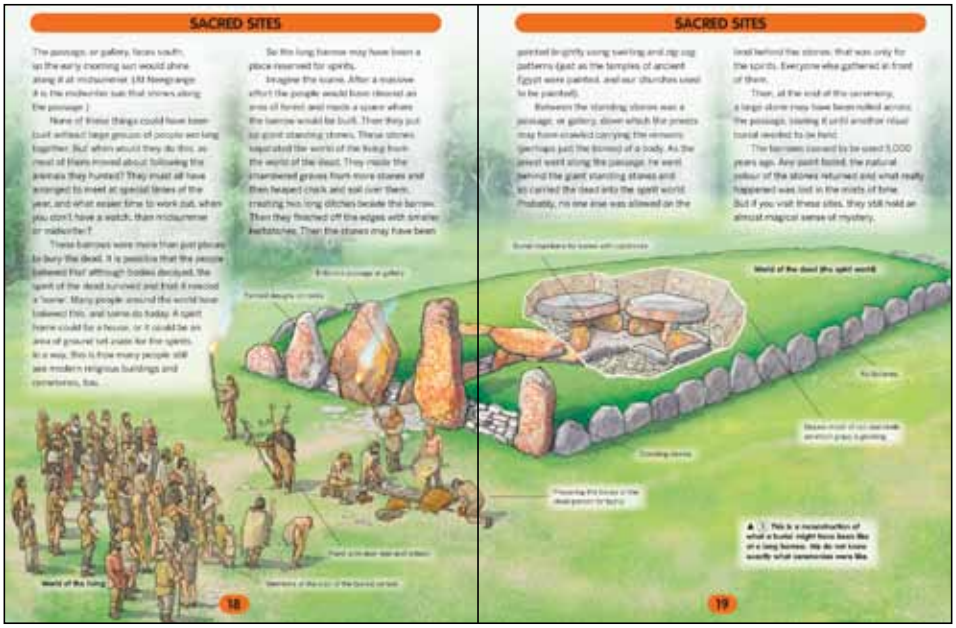
The development of this idea resulted in passage graves and long barrows, which we think are communal burying places, but again were just for the powerful.

These bigger graves are like mausoleums, with side niches for a number of individuals, or family burials.

The fact that people put such a lot of effort into this tells us that burial was important. It also tells us that the society was well developed because a great deal of time, effort and co-operation was needed.

Ask students to keep this in mind because we shall come back to the idea of time and effort when we reach the New Stone Age later on.

The passage graves are also decorated with swirling patterns cut in the stone slabs used to form the burial chamber, so it would be reasonable to suppose that decoration was done by paint as well as carving, though this is now lost. Nevertheless, we do now have an idea of what kinds of pattern art was important at this time. You will find that we have assumed this



was more widespread and carried it on to our reconstruction of a long barrow.

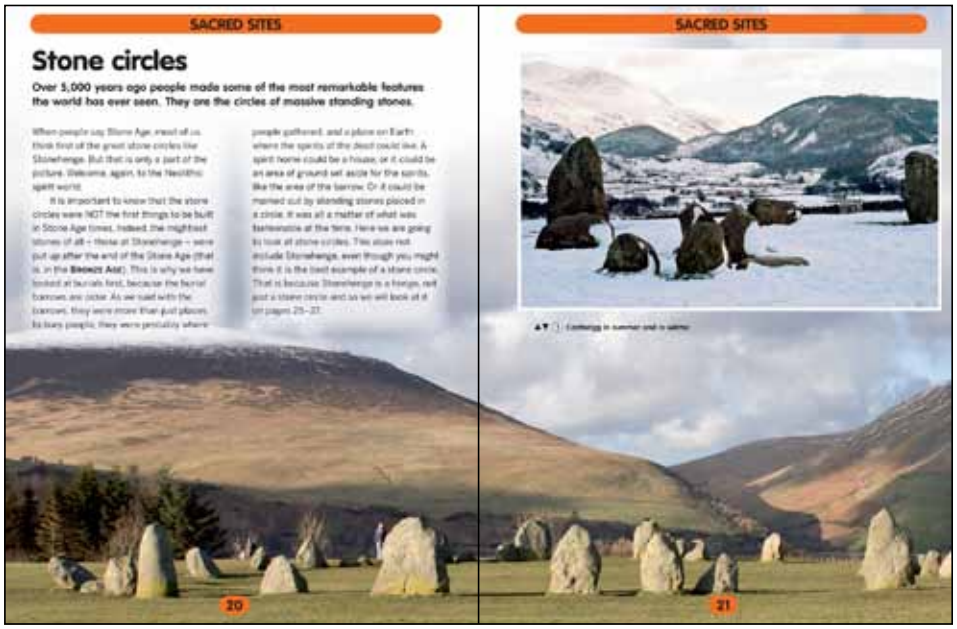
When you visit a long barrow today it is impressive enough, but it would seem unthinkable that people would go to so much effort and then leave these gigantic stones undecorated. Down the ages and in all cultures, decorative art has played a major part in all ceremonies, so we can assume this was true here, too. In fact these long barrows are in prominent hilltop locations and so, if the forests had been cleared, could have been seen from a long way away.

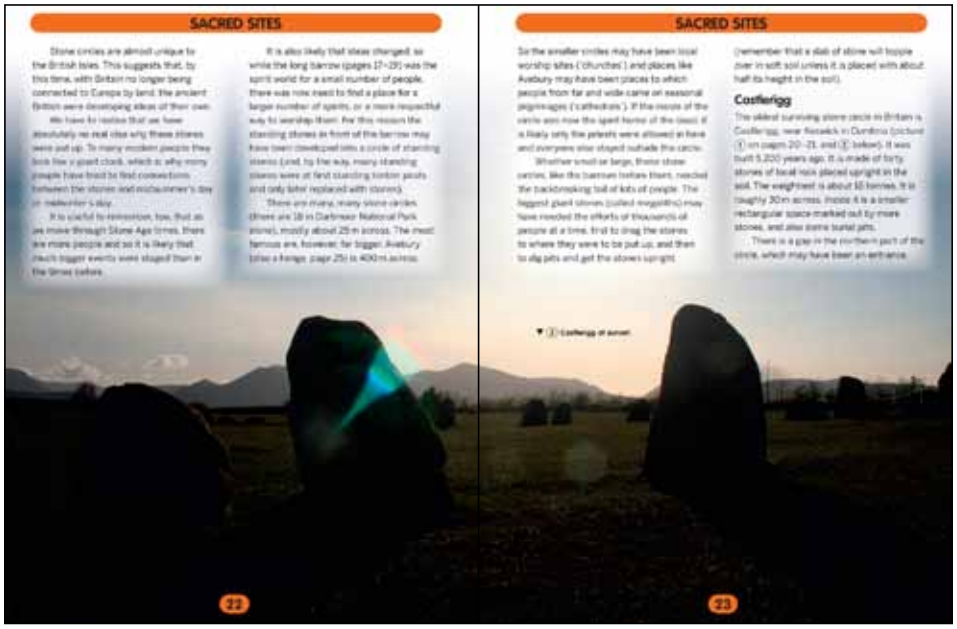
And now to the idea of co-operative effort, for people at this time were still essentially nomadic, wandering about harvesting food from the land. They had to have agreed to meet at some part of the year and lend a hand with the construction – not just the moving of stones, but also the digging of the ditches, covering of graves and so on. You might remind students that all they had to dig with was an antler or some other flat animal bone. It was laborious work, and needed many hands. You might try it in a sand pit using just spoons to give students a sense of how much effort and time was involved.

The reconstruction of the ceremony on page 18 is purely conjectural, but we know that only bones were buried in long barrows, so the burial probably took place some time after death, the body having been left out for animals to pick clean (as still happens with some religions). That is what is being shown here. We don't know if the massive upright stones were buried or not, perhaps as they were so important, they were not.

At the end, students should have developed a sense of wonder and awe at the achievements of these people, of the strength of their society and ability to achieve tasks of literally monumental proportions. And then they decide to build the henges, taking construction to a completely different level.

Stone circles (pages 20–21)





Many students will be wondering why we start with stone circles and don't show a picture of Stonehenge. They will find that later. However, as Stonehenge is a henge and not just a stone circle, we need to explain how these amazing structures developed, and we start with the simplest, the stone circles.

The pictures show one of the oldest of the stone circles, that at Castlerigg near Keswick. Stone circles are not the same as long barrows, although both had religious and burial functions.

Students will remember the standing stones in the front of the long barrow and that it may well have been that the area of burial behind the stones was seen as a place for the dead, the spirit world. Now we find standing stones formed into a circle, so it may well have been that the standing stones framed a much larger and more important spirit world – cremation burials have been found close to them.

No one knows why barrows stopped being built and circles became the favoured form of monument. Many people have suggested a

connection to the summer or winter solstice for the orientation of barrows and stones in stone circles. They represent even more effort on the part of the communities that built them.

This is a good opportunity to relate history to yet another part of science and technology, that is the idea of forces and how to move large heavy objects. It was needed for the circles and must simply have been adapted and carried out on a bigger scale for the henges, and Stonehenge in particular.

As in the case of the barrows, the large standing stones had to be brought on site, that is they had to be dragged to the locations, or put on tree-trunk rollers, or some other way of lessening frictional drag found. No evidence for this has been found, so every reconstruction is pure speculation.

Just as with the barrows, the construction of these circles – the digging of holes to put the stones in, the dragging of the stones to the site, and their eventual tilting until they slipped into the holes prepared for them – required huge communal co-operation and commitment.

Henge people (pages 24–29)

Students may have taken the word Stonehenge for granted, it is, after all, one of the best known monuments in the world. However, a henge is a rather particular feature, and it is not the stones – it is the less conspicuous ditch and bank surrounding them. The most massive of these features is Avebury, which covers a far greater area than Stonehenge, but its stones are smaller. So when people follow the tourist circuit of Stonehenge and look at the megaliths in the centre, they look straight over the feature that gives it its name – the ditch and bank which is now mainly filled in, and inside which the stone circles were raised. Some henges do not have stone circles in at all, so they were not built as single units, but the henge was probably adapted by the introduction of the stones at a later date.

The ditch and bank of the largest henges like Avebury are truly monumental works of engineering. Making them was not rocket-science, it was simply a matter of marking out a circle and then digging a ditch 13m deep (the height of a house) and throwing the material up on an outer bank – except that the tools they had were simply antler blades. That is what made it so remarkable. Just as with previous experiments, it is useful to gauge the magnitude of the task by getting students to dig a henge in a sandpit using spoons. First of all, there has to be agreement, planning and co-operation, and it probably all took place each summer when people gathered for weeks or months to get on with the job, each clan being responsible for its own section of the ditch. The idea of the ditch being dug by many clans comes from the fact that the ditches show many discontinuities between neighbouring sections.

Some students may think the ditch and bank could have been a fort, but in most cases (but not Stonehenge) the ditch is inside the bank, and so serves no defensive purpose. More likely it stopped the general populous from getting into the area of the spirit world. They may even have witnessed ceremonies from the grandstand position of the bank (as suggested by the reconstruction on page 28). Again, it is pure conjecture, but it does fit the facts.

What most people do not realise is that the stones were put up in the circular ditch and then rearranged several times, or, in the case of Stonehenge, put up, taken down, put up again and so on over long periods of time. It was almost as though religious fashions or rights changed over time and so required a different arrangement of stones.

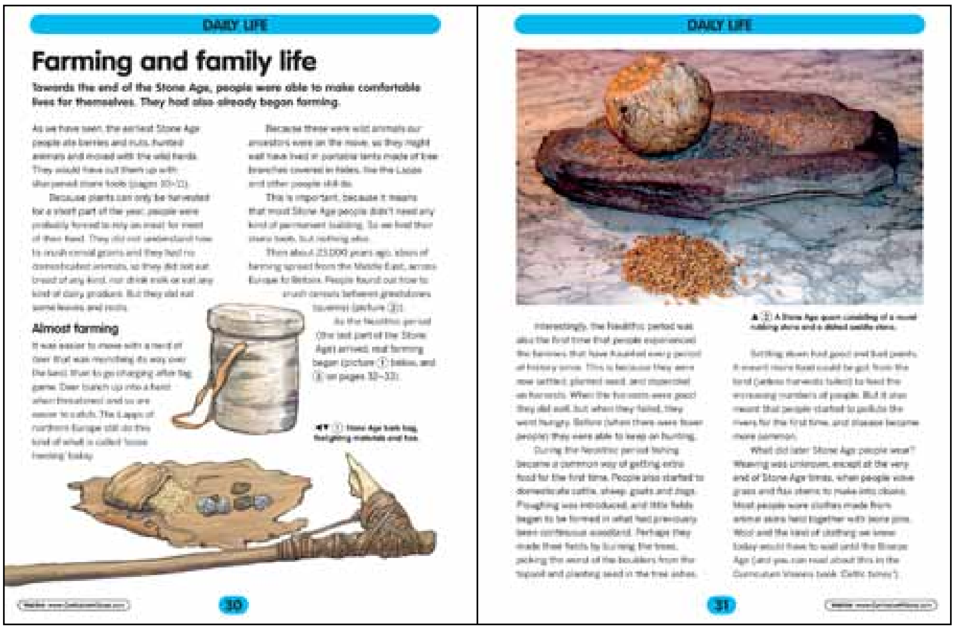
Most of the astonishing things about these henges – the ditches and banks – go

unnoticed by visitors, but the standing stones do not. A huge amount of speculation has gone into trying to understand how the stones were brought to the site and how they were then raised, to say nothing of why different arrangements of numbers of stone were used and why some had lintels (cross pieces) and others did not.

There are other stones in the area of the henges near Stonehenge. It was not an isolated feature, but connected to other henges and structures by causeways made of parallel rows of yet more standing stones.

The whole business of raising the stones is a matter of pulleys and levers and so fits within the idea of forces in the science curriculum. We have produced a video to show how it might have been done, and we show it on a scale that allows its recreation by students in a classroom. Moving the stones is also demonstrated (it is an example of static and rolling or sliding friction, also in the science syllabus) and can be reproduced in a classroom activity. In this case students learn a lot more by trying to raise the model stones for themselves than they do by simply watching the video.

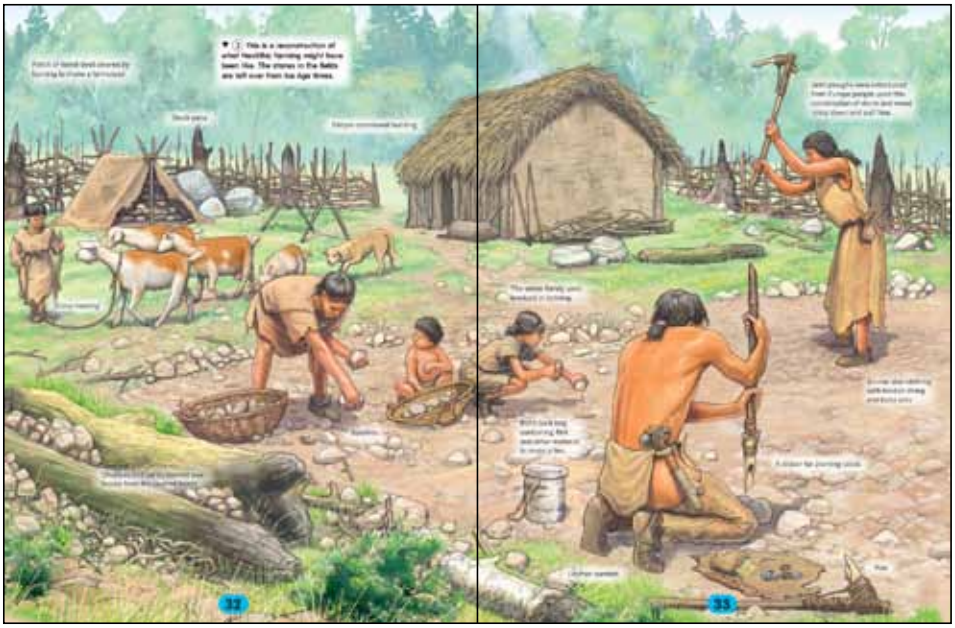
Farming and family life (pages 30–33)



It may be a good idea to recap at this point and make sure students understand about the great length of time that we are talking about. In this context they could expect change to happen.

One of the changes that was most important was the increase in the population. You may care to do some simple maths here. Suppose a thousand people arrived after the Ice Age 10,000 years ago. Each generation produces new students every 20 years. The death rate is high, but all the same, suppose the 1,000 results in 1010 after 20 years (annual increase 0.05%), in a thousand years this would increase the population by 648 people, so the population would be 1,648, but in 5,000 years the population would have grown to over 12,000. If the population growth was 20 more living than dying every 20 years (annual increase 0.1%), our original population would have grown to 148,000 after 5,000 years (and by now would have given a population of 21 million!), which is a startling increase. In fact, archaeologists think the population in New Stone Age times might have been a third of a million based on their superior understanding of mortality rates. You can get students to play with this kind of compound interest by using an online interest calculator. It does not matter that the calculator is meant for savings and loans. It is simply a decimal compound interest calculator and so can be used for anything if you ignore the currency symbol. But it does allow students to predict population changes. Incidentally, you can use it for current developing world populations if you are studying hunger and poverty. Start with a population of 1 million and have a population increase of 5% over 10 years – the result is 1.6 million or an increase in more than half the mouths to feed in just ten years, something that even modern farming systems cannot readily do! Back to the Stone Age and the same kind of reasoning applies. Even with low levels of increase, the number of mouths to feed is increasing quickly and this has the automatic effect of making food harder and harder to find by simply gathering wild fruits and hunting wild animals. It would inevitably lead to having to find better ways of securing food supply and so a need for some kind of farming.

You may at this stage, wish to discuss the nature of wild food collecting with students (as we have mentioned before). Most of the plant matter in our environment cannot be eaten by us. We can eat just a small amount of it, or we let something else do the eating and then eat that, which, of course, is why people eat animals. The way to get more food for ourselves from the land is to increase the number of plants that give the food we can eat. This means clearing forests and planting cereals and root crops. It is farming. There is



lots of evidence that farming was becoming widespread in parts of Britain in the Stone Age. Its implications are profound and will be discussed in the companion *Celtic times* book. But at the moment, it is enough just to note that farming is inevitable as populations grow. There is no choice.

On the first spread you can see a simple quern (discussed earlier) and you may want students to investigate how this works using a pestle and mortar and something like peppercorns. Is it easy? What are the problems? How can they be solved? This is cross-linking to design and technology.

Another item shown on this page is the materials needed to light a fire: a flint, an iron rock mineral to strike it against, and a source of easily combustible dry material, such as dried grass.

The hoe is a stick with an antler tied to it using animal sinews. Again you can get students to find out for themselves how to tie a piece of wood at right angles to another piece of wood so that it is held fast. It is not easy and results in a great bundle of string at the join. It explains why one piece was sliced into another and why mortice and tennon joints were invented (make a hole in the end of the wood, put the antler end in that and then tie it all together).

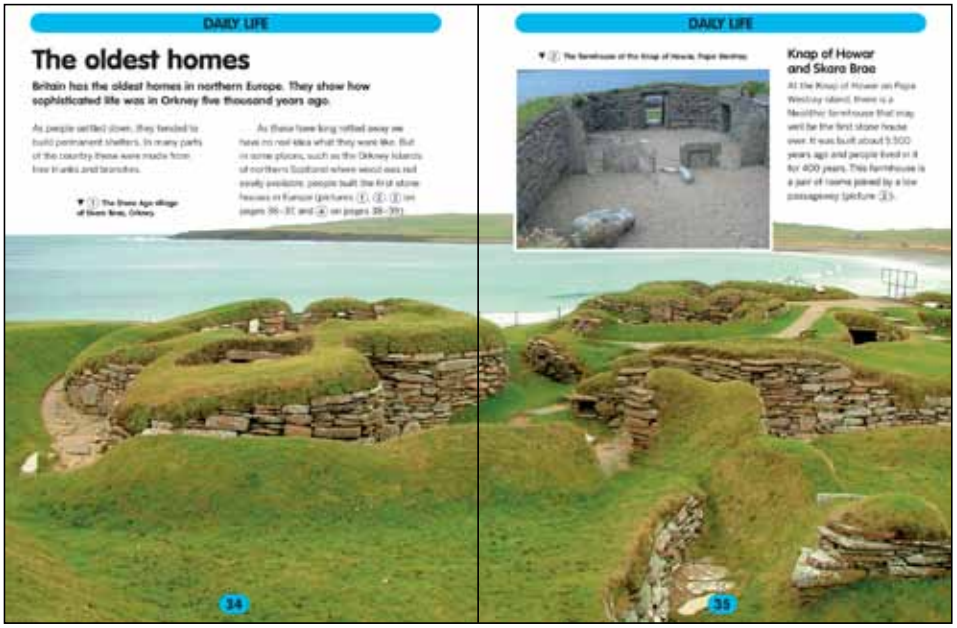
Students can also see a box made of bark, which they could also try making.

At this time the clothes were all made of animal skins and held together with sinews or bone pegs. Weaving comes in right at the end of Stone Age times, but cloth weaving belongs to the Bronze Age.

As farming takes hold, so people become more fixed in their location and so, instead of moving about using tents for shelter, fixed homes are invented, although there is insufficient evidence from across Britain to know exactly what these looked like. Of those we do know about, most were small and had a rectangular plan.

Notice the main drawing shows clearing stones from a field and using simple bone and wood instruments and the domestication of animals. The method of clearance is slash and burn, so you can still see the tree stumps. Grass weaving was done in the Stone Age. Whether basket weaving was done here is conjectural, but the oldest baskets made anywhere in the world have been carbon dated to 12,000 years ago.

The oldest homes (pages 34–39)



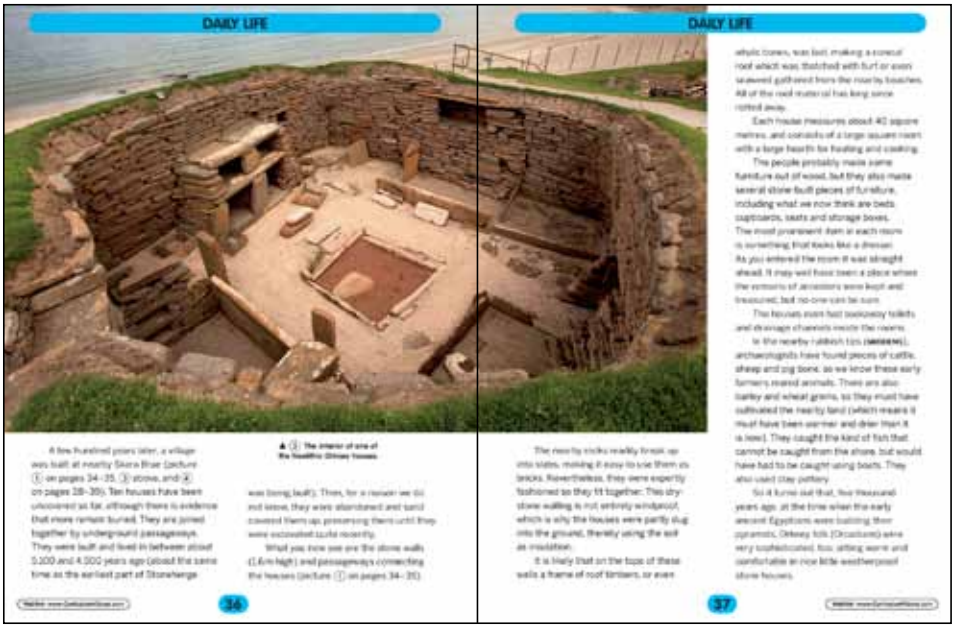
If you ever get the chance to visit Orkney and see the huge variety of Stone Age artefacts you will be amazed. But you will be most amazed by the oldest houses in Britain, the farmhouse at the Knap of Howar and the village at Skara Brae. These date to over 5,000 years ago and they look as though they were vacated just yesterday. They have perfect dry stone walling and all that is really missing is the roof.

Get students to spend a lot of time thinking about these houses and looking at the pictures and the Curriculum Visions videos. First, notice that these houses are found in one of the most northerly of locations, an area which must have been populated quite late after the retreat of the ice sheets. So the implication is that people got here fast after the ice left. They then formed communities and learned about technology sufficient to make windproof and waterproof houses that were not bettered for the best part of 5,000 years since. Notice that using soil on the outside of the houses and sinking them partly in the ground makes them better insulated and windproof. People have recently been experimenting with houses buried by soil for ecological reasons – sorry folks, the Stone Age Orkadians beat you to it by 5,000 years!

Get the students to look for the room dividers and quern, and get them to see how the stones have been fitted together. This is an important piece of technology, made easier by the fissile nature of the local stone, but nonetheless an important innovation.

Look down into the rooms and see the frames in which bedding was placed, the location of the central hearth and even what, at first sight, appears to be a dresser, although its exact purpose is unknown and in our reconstruction is shown as housing pots containing the created ashes of ancestors (which is what you still find in many parts of the world). Anyway, no one knows. Each house measured about 40 sq metres, and students could mark that out in the playground using the backs of chairs as wall markers.

One of the reasons we know so much about these people is that they piled their middens against their houses and so many remains are still in situ. At this stage you might also like to construct a midden made of things that modern health and safety might allow. For example, you might make a wastebasket of shredded paper in which are small pieces of pot. And, by the way, you could make a midden of this kind for every age you will be studying, so you could



have Stone Age, Celtic times, Roman, Tudor, Victorian, etc., wastebasket middens and allow students to find out about the times by digging in to the midden.

On which sordid note we end this outline of the book. It's a great period of history with much that students can recreate, so have fun. The next part of this guide gives you more help with this.

Section 3: Activities for class and home

Introduction

The aim of these activities is to give children an idea of what it was like to live in the Stone Age. All of the activities aim to develop skills in a wide range of subjects in the curriculum and most are practical activities which can be done in class or at home.

Read through the list of lesson plans here and scan the student book to see where you might like to include some of them in your scheme of work. You may like to have two or more activities from different lessons taking place in your class at one time or set some for homework.

Note

The cross-curricular links in the activity plans are for the National Curriculum in England but can also serve as a guide for use with other National Curricula.

Setting the scene

Before you begin the activities you may like clear up some misconceptions about people of the Stone Age.

The people of the Stone Age are often depicted in popular culture as dim witted, club waving, cave dwellers who lived in the time of the dinosaurs. These perceptions need to be addressed at the outset.

The dinosaurs became extinct sixty five million years ago. The first evidence of human type beings on the Earth dates back to four million years ago so people and dinosaurs missed each other by over sixty million years.

Over the course of the last four million years there have been a number of different kinds of human type beings and there is evidence that they used stone as a material to make tools. About a quarter of a million years ago a type called the Neandertals (named after the place where the remains were first found) developed and spread out. These people were shorter and thicker set than people today and had low foreheads and a pronounced ridge over their eyes. It is from reconstructions of these people that the idea of the dimwit arose but in fact the Neandertals had larger brains than us and a wide range of survival skills including sheltering in caves and using clubs in hunting. Evidence of their presence ended about thirty thousand years ago but the cause of their extinction remains unexplained. About a hundred thousand years ago the human type or species to which we belong developed. They lived alongside the Neandertals until the latter died out.

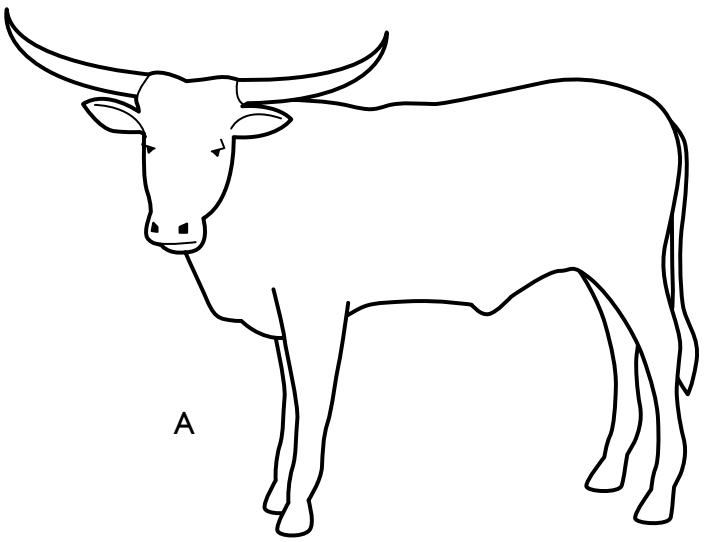
By the time the children have tried several of the activities they should find that Stone Age people were as intelligent and skilful as people today – their descendants had yet to make the discoveries about materials, machinery and fuels that has lead us to the lifestyles we live today.

List of activities

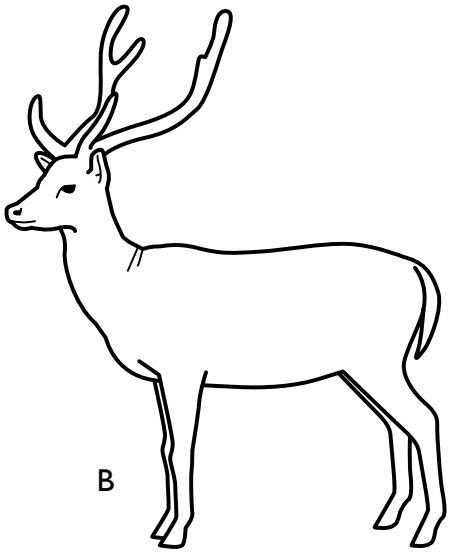
Name:..... Form:.....

Based on The Stone Age student book

The food of hunter gatherers



A



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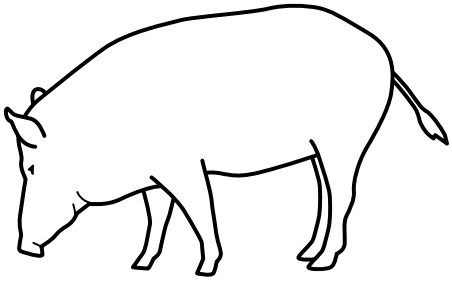

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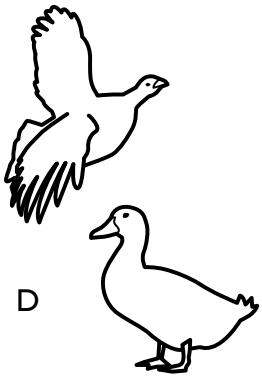

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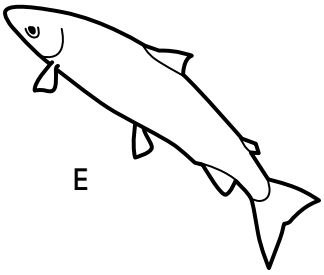

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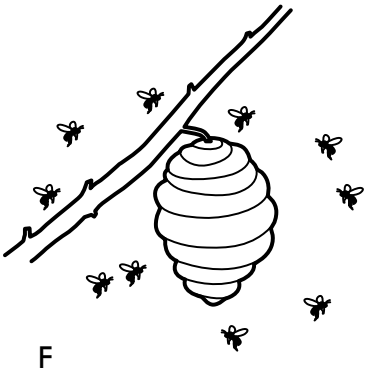

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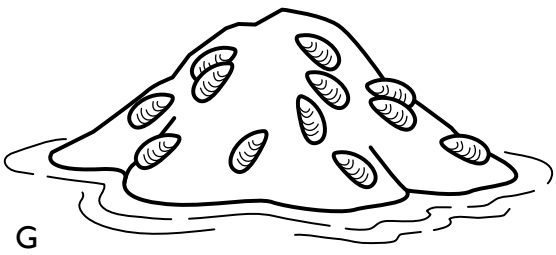


G

The food of hunter gatherers

Objectives

- To learn about the range of food eaten by Stone Age people.

Cross-curricular links

History

1a Place people into correct period of time.
2a Characteristic feature of period studied.

Science

Sc1
2f Make systematic observations (on plants).
2i Make comparisons (on plants).
Sc2
2b The need for food for activity and growth and the importance of an adequate and varied diet for health.

English

En1
3a–e Talk effectively as member of a group.

Resources

Each child or group will need a copy of worksheet 1 (page 30).

You will need a selection of herbs – sage, parsley, chives, basil, thyme from a supermarket or greengrocer.

Bag of frozen summer fruits (thawed out), slices of beef, ham, venison, chicken, smoked fish, shellfish, different kinds of mushrooms, jar of honey.

You may like to link this to worksheet 4 'Stones for querns'.

Starter

Make a list on the board of all the types of food people eat.

Now issue the worksheet and ask the children to look at the picture and identify the different sources of food. A = Auroch, B = Deer, C = Wild Boar, D = Woodpigeon, E = Salmon, F = Honey, G = Mussels.

Main activities

1. Tell the children that the hunting was probably done by adults who had experience of catching and killing animals but in time as they grew up all children (probably particularly boys) would be expected to hunt. Ask the children how they may feel about killing the animals (note how many opt to collect honey). If some people are prepared for killing the food ask who would be prepared to cut it up (this would probably be part of the women's tasks anyway so nobody would probably get away with not joining in the processing of meat.
2. Show the children the collection of herbs. Let them examine them and compare their leaves and stems. If it is hygienically possible they could taste them too.
3. Ask the children to write down their observations about the herbs so that someone reading them could distinguish them.
4. Tell the children that women in the group were probably skilled in plant recognition like this but would know many kinds of plants and fungi. Their knowledge was vital as some plants and fungi are deadly poisonous.

Plenary

Ask some of the children to read out their descriptions of the plants and assess their accuracy with the class by showing them the plants again. Display the collection of food and ask the children to assess it for health. Point out it is rich in proteins for body building and some of the meat would contain a lot of fat rich in energy while the plant food provides vitamins and minerals. Point out that it is low in energy-giving carbohydrates but tell the children about the quern and grinding corn. Compare the food eaten by Stone Age people with the list of food eaten today that is written on the board.

Outcomes

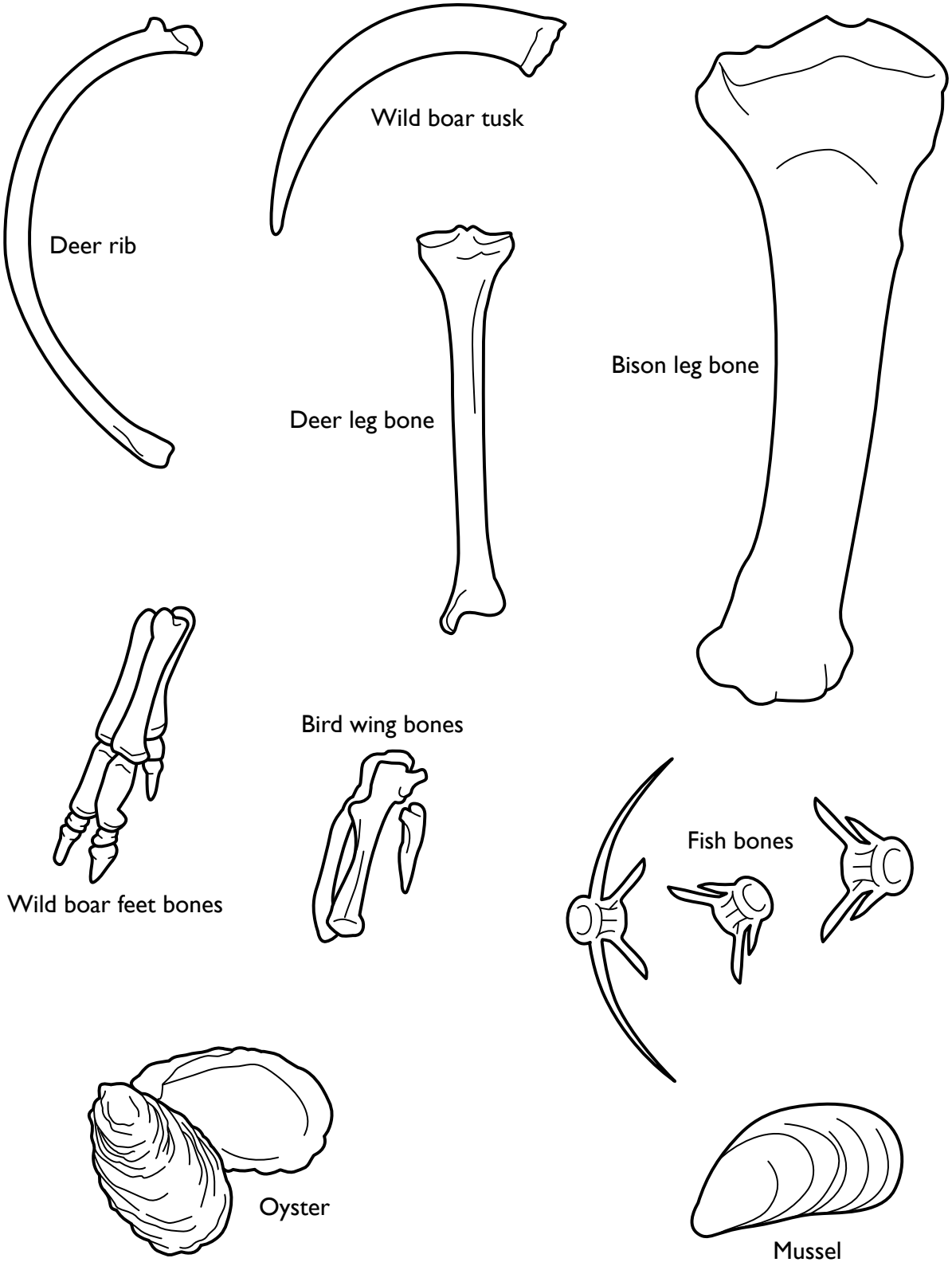
The children can:

- Use their imagination to hunt animals for food.
- Use sight, smell and taste to distinguish between plants.
- Assess the Stone Age diet for health.
- Compare a Stone Age diet with a modern one.

Name:..... Form:.....

Based on The Stone Age student book

Interpreting bones and shell fragments



Teacher's sheet

Based on The Stone Age student book

Interpreting bones and shell fragments

Objectives

- To learn how a fragment of bone can be used to identify an animal.

Cross-curricular links

History

4a To find out about people from an appropriate range of sources of information.

Science

Sc1
2i Make comparisons.
2j Use observations to draw conclusions.
Sc2
2c Humans and other animals have skeletons.

Resources

Each child or group will need two copies of worksheet 2 (page 32), scissors, a bowl of sand on a tray, a spoon and pastry brush. You may like the children to make models of the bones with modelling clay.

You may like to have some bones or pictures of bones for the starter. If you wish to display the bones make sure that they have been cleaned in accordance with the guidelines in *Be Safe ! Third Edition* published by the Association for Science Education. The school may have a collection of shells (in the infants department) which could be examined.

Starter

Tell the children that we know about some of the animals by the hard parts they left behind – their bones or shells. You may like to review the human skeleton here and then show the children some pictures of a bird skeleton, a fish and a deer. If you have some bones that have been cleaned in accordance with safety guidelines you could also show them to the children. The children could also look at pictures of shells or look at real specimens.

Main activities

1. Tell the children that Stone Age people left the bones and shells of the animals they had eaten around their camp site. This would not have been a big problem to them because as hunter gatherers they would not have stayed long in one place but moved on to follow the herds or look for plants producing fruit.
2 Tell the children that archaeologists find evidence by carefully digging in the ground. If they were not careful the evidence would be damaged and even more difficult to interpret.
3. Issue the worksheet and explain to the children that they have to cut out the bones and shells and then cut them up into fragments and bury them in their bowls of sand. They do not need to bury all the fragments just a selection – preferably one or two from each animal.
4. The children must then swap bowls and, using the spoons and brushes, carefully remove the bones. Go round regularly to check that the children are begin careful and slow.
5. The children should then set out their fragments and use the second worksheet to help them identify them. They may do this by putting the fragment over the appropriate part of the second worksheet.

Plenary

Ask the children what it might be like on a real archaeological dig and how they would feel about unearthing things that people thousands of years ago had handled. Ask them how they found the identification of the bones and shells. They could produce a table starting at the top with the bones and shells that were the easiest to identify.

Outcomes

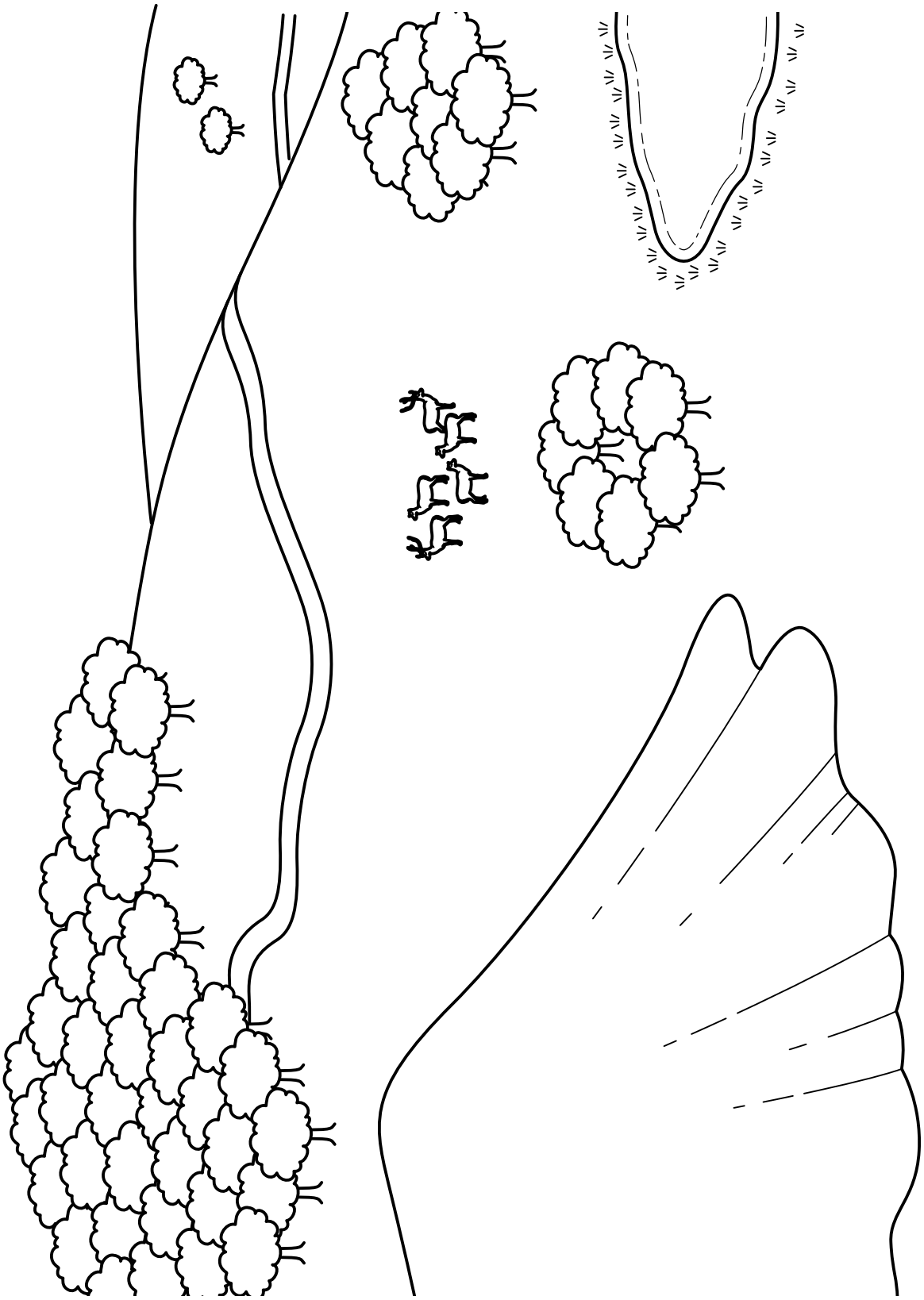
The children can:

- Appreciate the need for care in unearthing archaeological specimens.
- Use their observational skills to identify fragments of bones and shells.

Name:..... Form:.....

Based on The Stone Age student book

Hunting skills



Hunting skills

Objectives

- To learn about the skills needed to hunt.

Cross-curricular links

History

2a Characteristic feature of the period.

Science

Sc4
2d When objects are pushed or pulled and opposing push or pull can be felt.

Design and technology

1c Plan what to do suggesting a sequence of actions and alternatives if needed.
2b Suggest alternative ways of making their product if first attempt fails.

English

En1
3a–e Talk effectively as member of a group.

Physical education

1b Perform actions and skills with more consistent control and quality.

Geography

2c Use maps.

Resources

You will need a toy bow and arrow, a target and an open space to shoot the arrow safely,

Each child or group will need a copy of worksheet 3 (page 34), a large yoghurt pot, a selection of strips of paper and card, straws, pipe cleaners, grass stalks, dried plant stems, a toy animal such as a cow (or elephants if you have talked about mammoths).

Starter

Tell the children that Stone Age people used spears, bows and arrows and axes to hunt and kill animals for food. Explain how the bow works in terms of forces – when the string is pulled back a tension force is generated in the string and bow which can be felt and when the string is released this force pushes on the arrow and sends it into the air. Let the children take turns at firing the bow and arrow at the target. You could let each one have three turns to see if there is an increase in the skill with practice.

Main activities

1. Tell the children that Stone Age hunters built pits near the paths that animals used regularly. If an animal fell in it and could not get out the hunters could fire down on it without it attacking them. The pit had to be covered in material that would allow the animal to walk onto it and then collapse. If it collapsed when the first foot was put on it the animal could jump back.
2. Issue the pots and toys and give the children access to the paper strips and other materials they should try to make a cover for the pit. Let the children cover the pots with the materials and place the animal on top. The best selection of materials should not allow the toy to sink too quickly (or the animal could step back) or too slowly (or the animal could run off).
3. Issue worksheet 3 and tell the children it shows a map of an area where there is a herd of deer. Point out the forest, cliff, lake with swamp, the hill top and the two small woodlands between the herd and lake.
4. Tell the groups of children that each one is a band of hunters lying in the grass on the hill top looking down at the herd of deer and ask them to work out a plan to kill a deer in the herd. There can be many strategies to try. For example, they may decide to sneak down behind the wood and then rush at the herd and hope to drive one over the cliff. This strategy may also drive the deer into the forest so some hunters would have to sneak around them to cut off the escape. The children may decide that getting a deer stuck in the swamp will allow it to be finished off with a bow and arrow.
5. If a group comes up with an answer quickly tell them that the deer can detect the smell of humans on the wind so it is important for the hunters to be moving into the wind as they approach the deer to stop their smell reaching them. Suggest a wind direction and see if the children's plan still works or let them devise another.

continued on next page...

Teacher's sheet

Based on The Stone Age student book

...continued from previous page

Plenary

Let the children demonstrate the efficiency of their pit fall traps and present their strategy for catching a deer. The children could vote for the best strategy and the winning team be designated the master hunters. You may like to say that as the Stone Age progressed people began to farm animals instead of hunting them. (Activities on farming in early times are in the *Teacher's Resources* accompanying *Celtic times* in this series.

Outcomes

The children can:

- Appreciate that practice improves performance.
- Use materials to make a product.
- Work out a strategy using a map.
- Work in groups on practical activities and in sharing ideas.

Name:..... Form:.....

Based on The Stone Age student book

Stones for querns

1. Collect a stone with a flat surface and write down its name on the line in column 1 of the table.
2. Collect the pebbles and look at each one in turn. Give it a letter and in the second column of the table write a description of each pebble.
3. Take a certain number of grains and lay them on the flat stone.
4. Take pebble A and use it to grind the grains a certain number of times. Remove the grains and place them in a small dish.
5. Repeat steps 1–3 with each pebble.
6. When you have finished use a magnifying glass to examine each sample of ground up grains and arrange them in order from the most to the least broken up. Enter the results in the third column of the table.

Saddle stone name	Rubbing stone	Grinding performance
	Description	
	A –	
	B –	
	C –	
	D –	
	E –	

You may like to stick a few grains from each dish in the appropriate place in column 3 on the table.

Stones for querns

Objectives

- To compare the properties of stones.

Cross-curricular links

Science

Sc1

2d Make a fair test or comparison by changing one factor and observing or measuring the effect while keeping other factors the same.

2j Use observations to draw conclusions.

Resources

You will need some wheat grains and flour.

Each child or group will need a copy of worksheet 4 (page 38), a piece of sandstone, limestone or granite with a flat surface, pebbles made of sandstone, limestone and granite, or any collection of different coloured pebbles that will fit comfortably in a child's hand, grains of wheat, oats and barley, small tin foil dishes (one for each pebble used), magnifying glass.

Starter

Show the children some wheat grains and say that it is ground up to make flour. Ask the children what flour is used for and look for answers about making bread and cakes. Tell the children that Stone Age people ground up the grains of wild wheat between stones to make flour and used it to make a kind of bread. Ask the children if they thought the people would use any stones they found and look for answers that indicate that stones have different properties and the people might look for the hardest stones which crumbled the least when they were ground.

Main activities

1. Show the children a picture of a quern and point out the lower stone is called the saddle stone and the upper stone is called the rubbing stone or rubber.
2. Issue the worksheet and read through it with the children and discuss how to name each pebble, decide on the number of grains and the number of grinds or let the children decide for themselves.
3. Let the children work through the sheet and record their results.

Plenary

Let the children compare their results and decide on the best combination of saddle stone and rubbing stone. The children may have noticed that pieces of stone became mixed up with the flour. If they have ask how this may affect the teeth of the people eating the bread and look for an answer about the bread wearing down the teeth.

Outcomes

The children can:

- Make a fair test.
- Record data and draw conclusions from it.

Teacher's sheet

Based on The Stone Age student book

Our surroundings

Objectives

- To become more aware of our surroundings.

Cross-curricular links

Science

Sc2

1c Make links between life processes in familiar animals and plants and the environment in which they are found.

English

En3

9a To imagine and explore feelings and ideas, focusing on creative uses of language and how to interest the reader.

Resources

You will need access to a lawn, a park, field or wood, teacher helpers.

Each child or group will need a clipboard, note paper and pencil. There is no worksheet for this lesson.

Starter

Ask the children to sit in silence and not move. Ask them to look and listen and after a minute ask them to tell you what they saw and heard. Tell the children that in the Stone Age people were more aware of their surroundings than people are today. They had to be because a great knowledge of their surroundings helped them to survive. Tell the children they are going to try and find out more about their surroundings simply by looking and listening.

Main activities

1. Tell the children that you are going to go out onto a lawn and besides grass there are other plants which grow there. Show the children pictures displaying the flowers and leaves of the daisy, dandelion, buttercup and clover. Show them some pictures of grass plants and moss.
2. Take the children onto a lawn and let them sit down with a large space between each child. Ask the children to look and listen for a minute in silence and then tell you what they see and hear. Look for answers about plants, buildings, sounds of vehicles and perhaps sounds of birds.
3. Remind the children about the pictures of the plants they have seen and ask the children to look at the lawn around them and ask them to see how many different types of plant they can see in the lawn. With the helpers go round and identify the plants with them. Be prepared for some children discovering mini beasts too!
4. Take the children to a park, field or wood and let them spread out and stand silently for a minute looking and listening. After a minute bring them together and ask them what they saw. Try and keep the conversation down to almost whispering to emphasise the need for silence. They may have seen birds, squirrels, bees, butterflies and heard the buzz of insects and the calls of birds.
5. Let the children spread out again and look and listen for two minutes. This time let them write down what they saw and heard.
6. Back in the classroom let the children produce a piece of writing about how they felt when looking and listening quietly and about what they saw and heard.

Plenary

Let the children read out their work and compare their feelings and observations. Tell the children that in the Stone Age life was much slower than today and people had time to look and listen and this also helped them to survive.

Outcomes

The children can;

- Make observations with their eyes and ears.
- Express their thoughts about sitting quietly in a countryside environment.

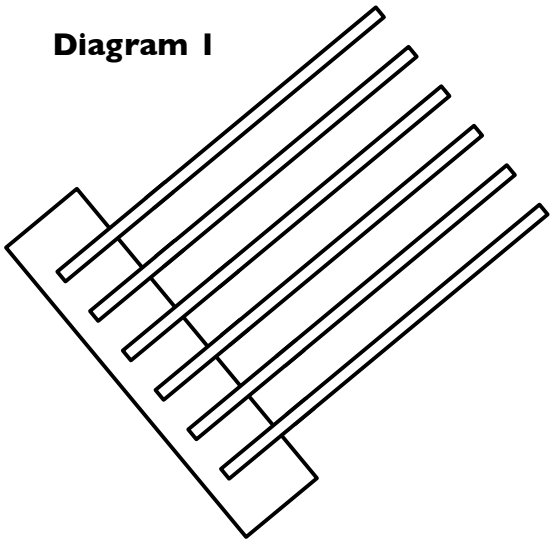
Name:..... Form:.....

Based on The Stone Age student book

Basket weaving

1. Line up the straws about one and a half centimetres apart as diagram 1 shows.

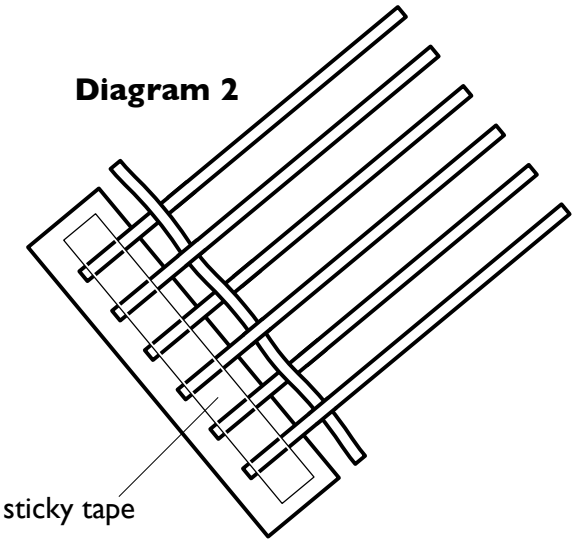
Diagram 1



2. Use a strip of sticky tape to attach all the ends of the straws to the strip of cardboard.

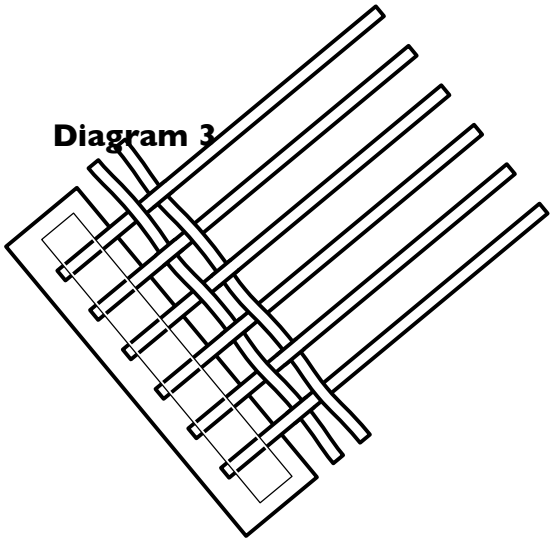
3. Thread one of the strips of paper through the straws as diagram 2 shows.

Diagram 2



4. Thread another one of the strips of paper through the straws as diagram 3 shows.

Diagram 3



5. Repeat steps 3 and 4.

6. Repeat step 5.

Basket weaving

Objectives

- To learn how simple basket work can be made.

Cross-curricular links

Design and technology

2d Combine components and materials accurately.

Resources

You will need twenty tennis balls that you have placed around the classroom as pretend fruit in a wood, some reed stems or cane or other basket making material from an art shop, a basket (keep hidden until step 2 in the lesson).

Each child or group will need a copy of worksheet 6 (page 42), six or more strips of paper about 1cm wide and 18cm long, six art straws 18cm long, a piece of card 4cm wide and 10cm long, sticky tape, scissors.

Starter

Tell the children that you have placed some tennis balls around the classroom to represent fruit in a wood. Ask one of the children to start collecting them. As the child collects them tell them that this could have been their job if they had lived in the Stone Age. It should not be long before the child collecting the 'fruit' cannot hold them all and starts to drop them. Ask the class how the child could continue collecting the fruit. Look for an answer about a container and ask them for ideas. They should conclude that a stone container would be impractical and encourage them to think about other materials that they may have. Look for answers about animal skins (they did not have cloth) or a tray made of bark.

Main activities

1. Show the children the reed stems and say that Stone Age people used them for holding fruit. Ask the children how they used this material. Be prepared for an answer about skewering the fruit and ask the children to think how they could use material to make a container.
2. Show the children a basket and pass it round so they can see how the reed or cane has been woven.
3. Issue worksheet 6 and read through it with the children then let them collect their materials and try the exercise. They can add more paper strips if they wish.

Plenary

Let the children display their work. Tell the children that although they are studying a period of time called the Stone Age because that was a major material used for making axes, arrowheads and knives, other materials were used and quite intricate processes like weaving reeds were used in addition to banging stones to shape them.

Outcomes

The children can:

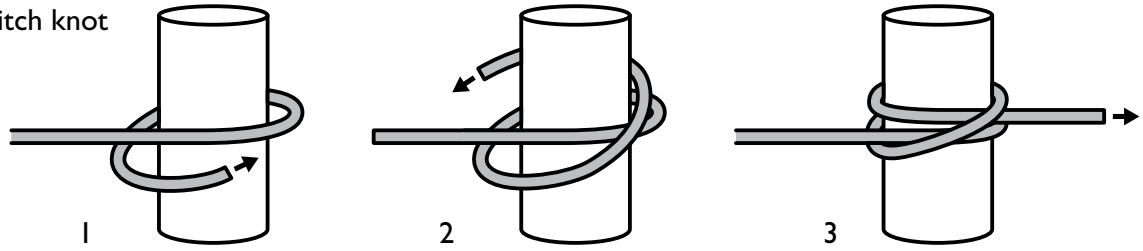
- Weave materials to make a model piece of basket.
- Learn that materials other than stone were used in the Stone Age.

Name:..... Form:.....

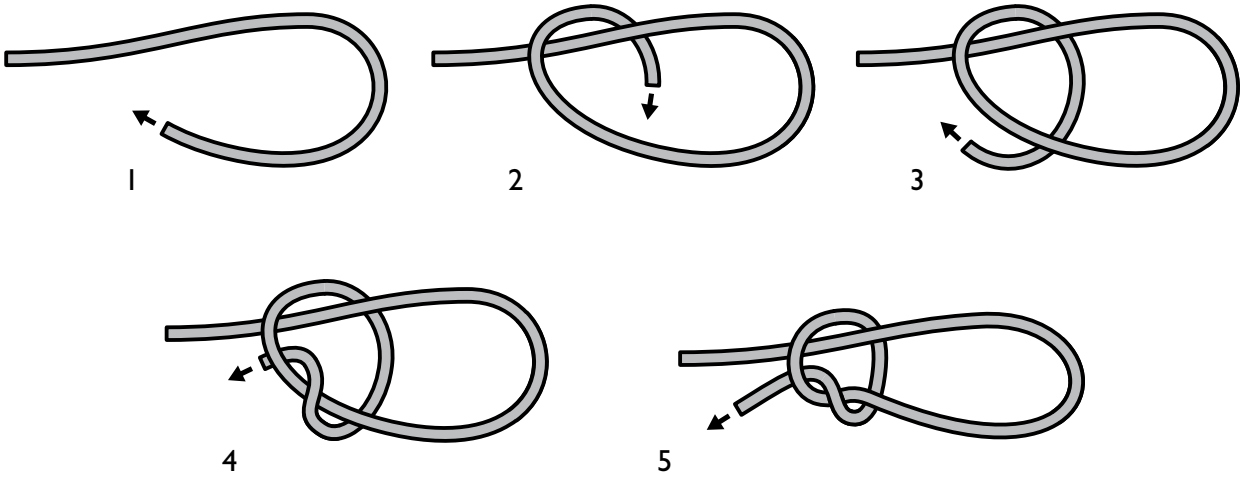
Based on The Stone Age student book

Making knots

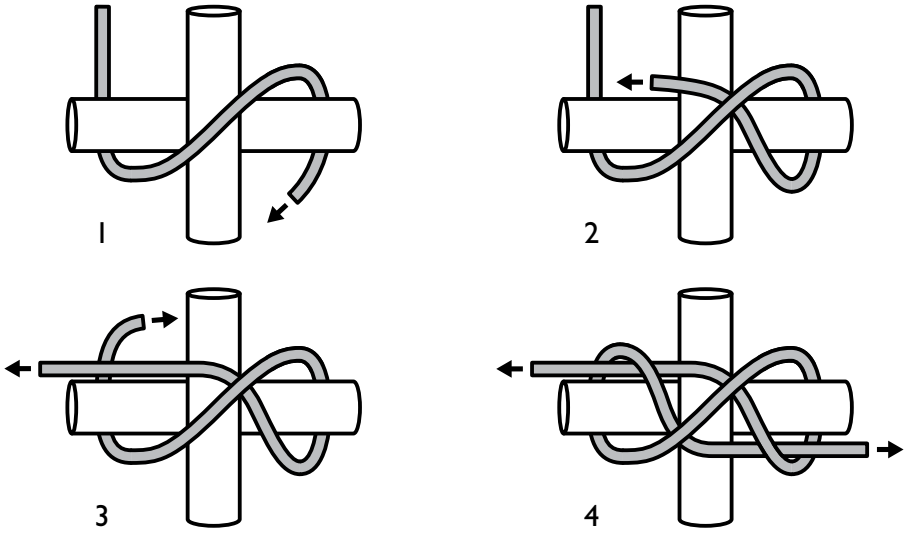
Clove hitch knot



Snare knot



Transom knot



Making knots

Objectives

- To learn that Stone Age people were capable of intricate work that needed the skilful use of the fingers.

Cross-curricular links

Design and technology

3c Recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose.

4a How the working characteristics of a material affect the way that it is used.

Resources

Each child or group will need a piece of string about 30cm in length, two pencils preferably with six flat sides (prevents rolling), a copy of worksheet 7 (page 44).

You will need a stick of celery and fibres cut from about a 10cm length of celery. Teacher helpers.

Before the lesson you and your helpers should practise tying the knots on the worksheet. Begin by making big loops as you tie and loop the string very slowly.

Starter

Ask the children how many of them can tie knots. Get them to demonstrate their skills. Tell the children that in the Stone Age, people made plant fibres into strings and ropes. Show the children a stick of celery and the fibres you have cut from them. Tie a simple knot in the fibres and say that Stone Age people used larger fibres and give out the string. Tell the children that they are living in the Stone Age and are going to be taught how to tie knots.

Main activities

1. Issue the worksheet and one pencil. Tell the children that they are going to tie a knot, which might have been used to tie a string to a fishing line. Show the children how to tie the clove hitch knot, then help them do it.
2. Move onto the noose knot or, if you prefer, call it the snare knot because it is believed to have been used for setting animal snares. Show the children how to tie it and tighten it, then help them do it.
3. Finally move onto the transom knot and issue a second pencil. Tell the children that this knot can be used to tie poles together to make shelters. Show the children how to tie it and tighten it, then help them do it.

Plenary

Let the children display their knots. Some children may like to demonstrate how quickly and accurately they can make their knots. Remind the children that knot making is a very useful survival skill which is still useful today for people who camp and trek through the wilderness.

Outcomes

The children:

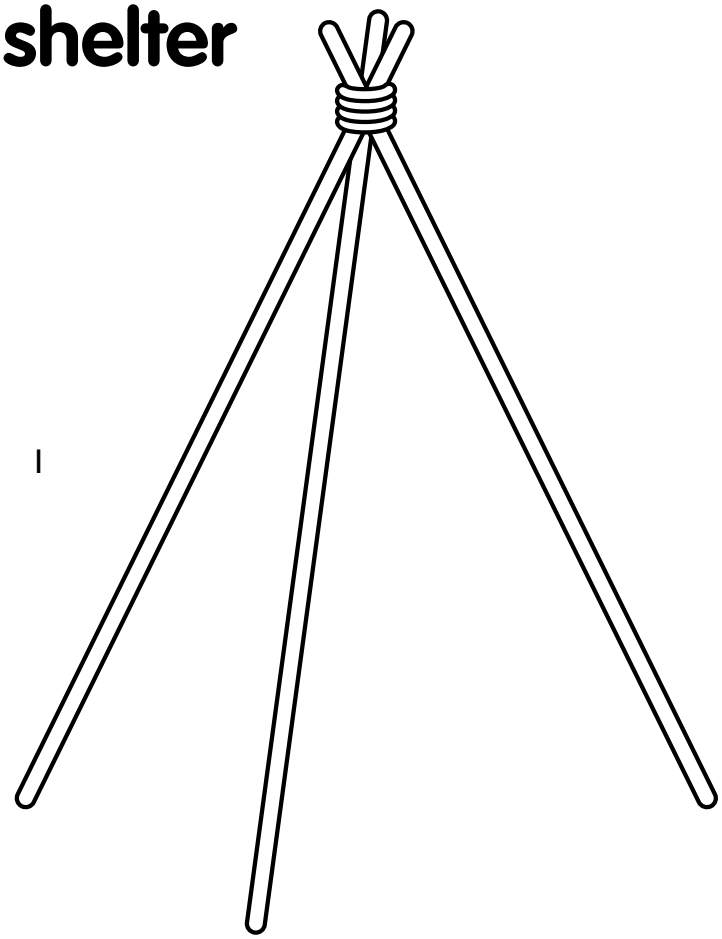
- Develop knot tying skills.
- Appreciate that Stone Age people could perform complicated tasks.

Name:..... Form:.....

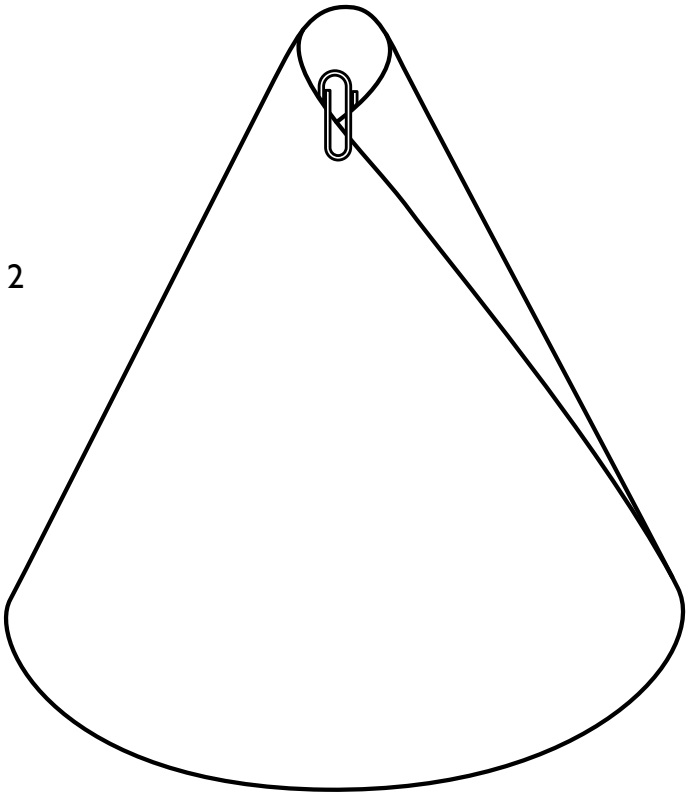
Based on The Stone Age student book

Making a shelter

1



2



Making a shelter

Objectives

- To learn how a shelter can be made by using materials available to people in the Stone Age.

Cross-curricular links

History

2a The characteristics of a period.
3a Find out about people from an appropriate range of resources.

Design and technology

2a Select appropriate techniques for making their product.
2b Suggest alternative ways of making their product, if first attempt fails.
3a Reflect on progress of their work as they design and make, identifying ways they could improve their product.

Resources

Each child or group will need worksheet 8 (page 46) three thin garden canes (less than a centimetre thick) and about 30–40cm long, a piece of string 20cm long, scissors, three paperclips, a square of chamois leather or similar material with a side length of about 35cm.

You will need a piece of sheepskin rug – the bigger the better, three long pieces of wood like broom handles, a piece of thin rope and cloth to make a large version of the children's shelter in the plenary.

Starter

Ask the children what kind of clothes Stone Age people wore. Dismiss answers about wool (they couldn't spin, weave or knit) and answers about cotton (not discovered). Bring the conversation around to the people using the skins of the animals they had eaten. Show them the sheepskin rug and see if it can be wrapped around yourself or one of the children. Ask the children how they would feel to be wearing animal skins. Give out the pieces of chamois leather and let them wrap them around their arms to get a slight idea.

Main activities

1. Remind the children that Stone Age people were always on the move following their food supplies as they hunted and gathered. Evidence has been found of people living in caves but they may also have made temporary shelters.
2. Ask the children what the Stone Age people might have used for temporary shelters and look for answers about breaking off branches, fitting logs together and covering with leaves. Ask the children what they might do if they were travelling across plains where trees were absent. Give them a hint by asking them about the homes of Native Americans of North America and look for an answer about teepees.
3. Challenge the children to make a model teepee out of the canes, string and chamois leather and paperclips. The paperclips represent a way of stitching the leather to make an appropriate shape. Issue the worksheet to help them visualise what they have to do.
4. The children should then work on solving the problem. They may join the sticks at the top with simple knots they use when tying shoes or experiment with knots they have learnt. They should try and make the shelter with hardly any hole in the top. They may use other suitable materials to improve on the basic model.

Plenary

The children can display their shelters and you could test their rigidity by shaking the top a little as if the shelter was being blown by a gale. You may like to assemble a large version of the shelter, which the children could enter and imagine what it would be like to be out on the plain in such a structure. Tell the children that when the people broke camp they carried their shelters with them. All the materials that were used for making shelters have rotted away but scientists believe the people made them because people who are hunter gathers today still make them.

Outcomes

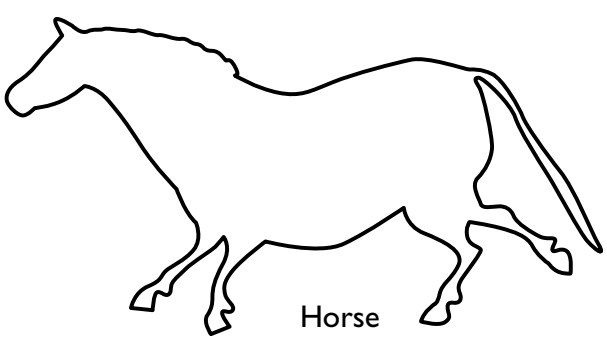
The children:

- Can work together to make a simple model.
- Can think of ways of improving their work.
- Are aware that Stone Age people did not only live in caves.

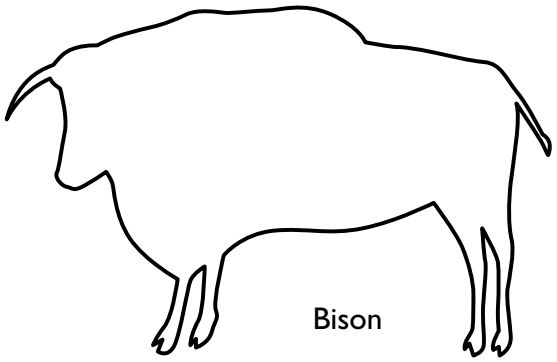
Name:..... Form:.....

Based on The Stone Age student book

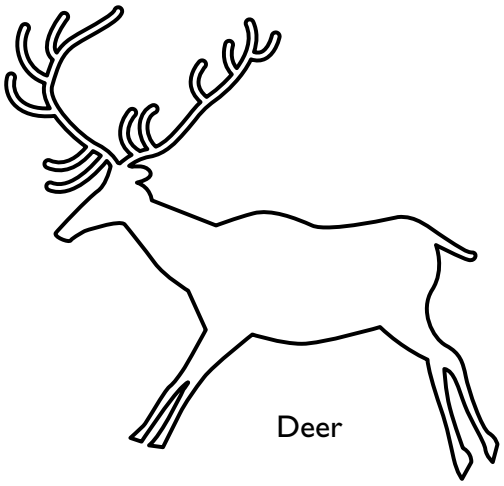
Cave painting



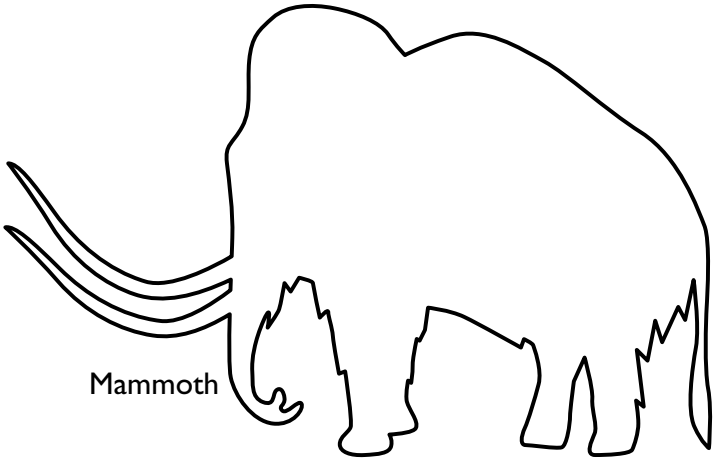
Horse



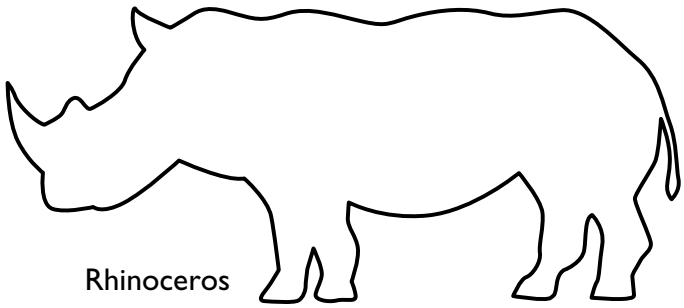
Bison



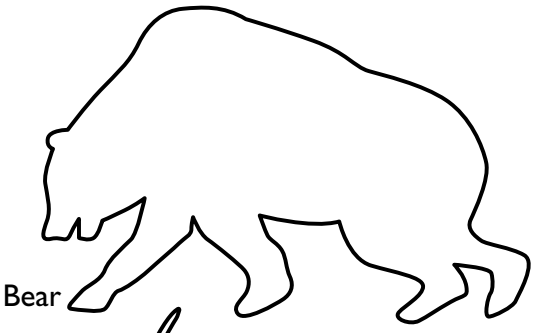
Deer



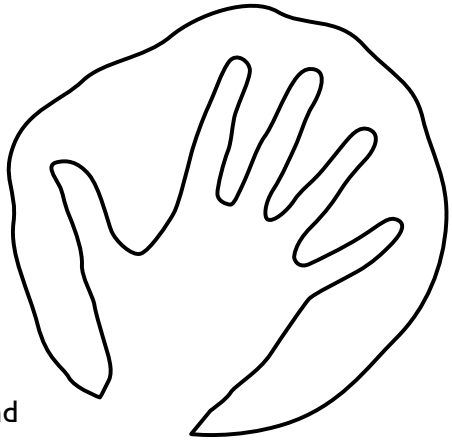
Mammoth



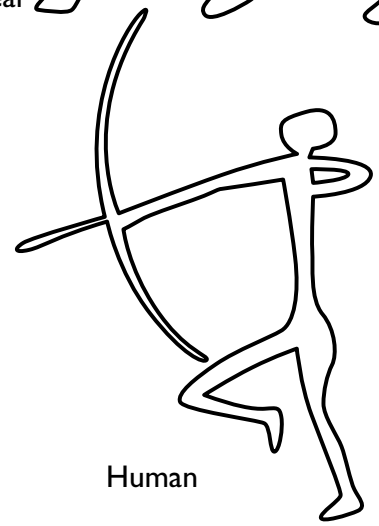
Rhinoceros



Bear



Hand



Human

Cave painting

Objectives

- To experiment with materials to make paintings.
- To try and make paintings in a confined space and poor light.

Cross-curricular links

Art and design

1a Record from experience and imagination and explore ideas for different purposes.
2a Investigate and combine visual qualities of materials and processes and match these qualities to the purpose of the work.
3a Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them.
5b Working on their own and collaborating with others on projects.

History

2a To learn about a characteristic feature of the period studied including ideas and beliefs.

Resources

You will need pictures of cave paintings, teacher helpers. Each child or group will need worksheet 9 (page 48), large sheets of corrugated cardboard to serve as cave walls, sheets of paper, charcoal sticks, paint brushes, paints (black, shades of brown, yellow), pieces of card cut to give a thin comb-like edge to serve as an artificial feather.

A note on cave making

Caves could be made by placing tables against the classroom wall and fixing a large sheet to the wall below the table top. Side walls could be put in place to make the space under the table darker. Torches.

Starter

Tell the children that Stone Age people made pictures on rock. Issue the worksheet and tell the children that the most frequent pictures were of animals shown here. Say that sometimes pictures of humans were shown and that hand silhouettes were also made. Tell the children that drawings were made using charcoal and issue some paper and charcoal sticks and let the children try drawing some of the pictures from the worksheet. Ask them to compare drawing with charcoal and pencil.

Main activities

1. Tell the children that archaeologists believe that Stone Age people may have drawn on rocks in the open but they have been washed away. Only the paintings that they did in caves have remained. The people often went deep into the cave taking torches and their paints and brushes with them. They may have used brushes made of animal hair, feathers, and pads of moss to apply the paint.
2. Let the children experiment with brushes – the paper 'feathers' and cotton wool 'pads of moss' to make paintings on paper. They could try and make a hand silhouette using the cotton wool.
3. Review the children's work then say that they are now going to make paintings in an artificial cave. With a teacher helper construct a cave from a table and cardboard, then let the children construct theirs.
4. Once the caves are made give the children the paint, brushes and torches and let them work in pairs painting animals and humans on their cave walls. They may also make hand silhouettes. Let them work in pairs, taking turns to paint and hold the torch. Remind the children that real Stone Age people had torches with flames.

Plenary

Let the children explore each other's caves and compare the cave paintings. Alternatively remove the painted cardboard and cover a classroom wall with all the paintings. You may like to let the children speculate on why the paintings were made and suggest that some archaeologists think the paintings were thought to be magical and would bring good luck when hunting. Remind them that nobody is really sure why the paintings were made.

Outcomes

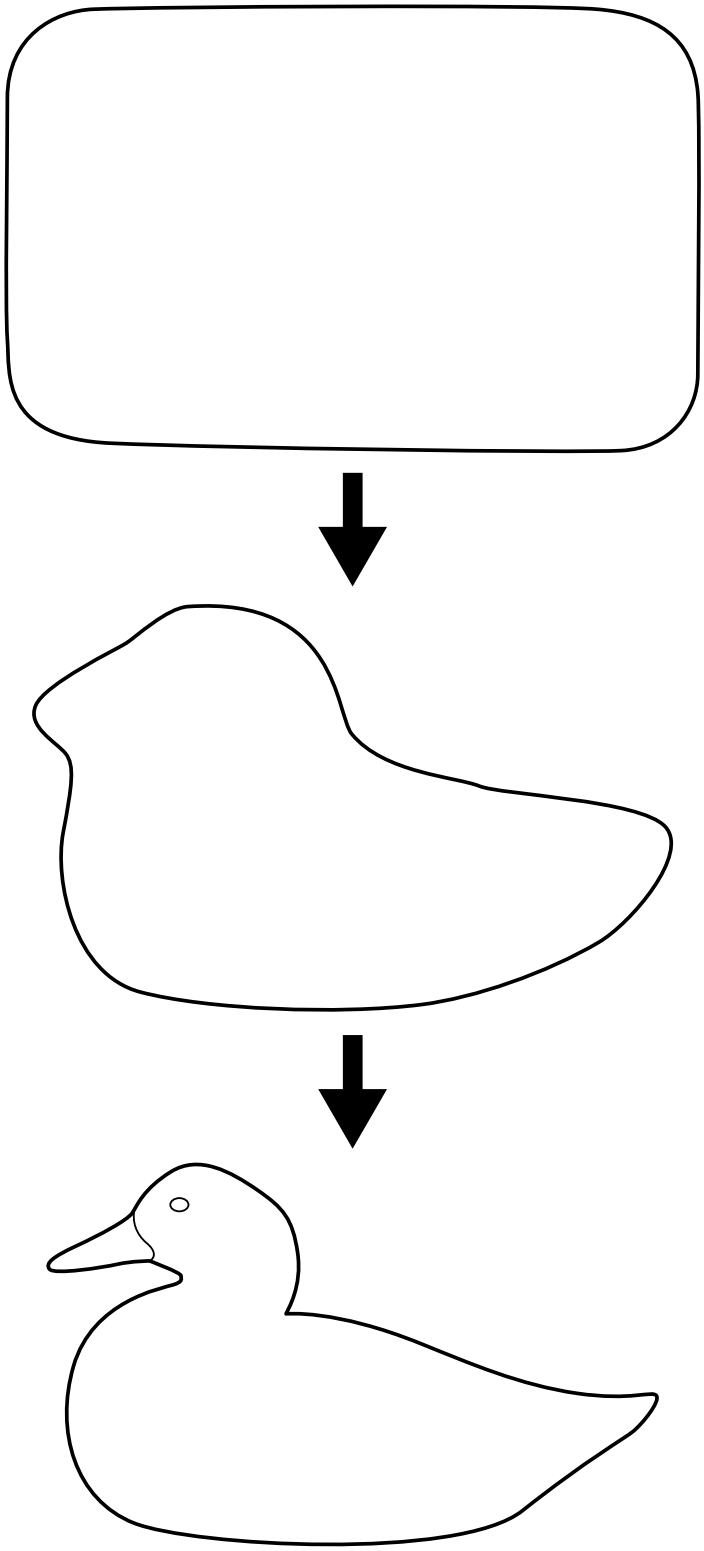
The children can:

- Use a range of materials to make pictures.
- Make cave paintings.
- Appreciate the difficulty of making paintings in caves.
- Speculate on the purpose of cave painting.

Name:..... Form:.....

Based on The Stone Age student book

Stone Age carving



Stone Age carving

Objectives

- To know that Stone Age people made artistic carvings.
- To carve simple figures.

Cross-curricular links

Art and design

1c To collect visual information to help develop ideas.
2b Apply their experience of materials and processes, developing their control of tools and techniques.
3a Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them.

History

2a The characteristics of a period including ideas and beliefs.

Resources

You will need pictures of Stone Age carvings, an enlarged copy of worksheet 10 for class display. Each child or group will need modelling clay, plastic knives or similar carving tools.

Starter

Tell the children that Stone Age people did not just carve stone to make axe heads, scrapers and arrow heads. They also carved figures of animals such as bison, deer and birds, and figures of people too. Show the children the pictures of the carvings and tell them that they are going to try and make an animal carving.

Main activities

1. Show them the enlarged copy of the worksheet and explain how they make a rough shape of the animal and then carve it out more carefully to establish the animal's features.
2. Issue the modelling clay and plastic knives and let the children work on their carvings.
3. If anyone produces a satisfactory carving before the others give them another block of modelling clay and challenge them to carve an animal of their choice.

Plenary

The children can display their carvings and examine each other's work. The children could speculate on why the Stone Age people made carvings. You may like to suggest that some archaeologists think the people might have used the carvings as charms to bring them good luck in hunting but nobody is really sure why they were made.

Outcomes

The children can:

- Make carvings of animals.
- Speculate on the purpose of the carvings in Stone Age times.

Name:..... Form:.....

Based on The Stone Age student book

Comparing digging sticks (i)

How will you make your test fair?

✎ .....

✎ .....

✎ .....

✎ .....

✎ .....

✎ .....

✎ .....

✎ .....

✎ .....

✎ .....

✎ .....

Stick material		Length before test (cm)	Length after test (cm)
Name	Description		
1			
2			
3			
4			
5			
6			

Name:..... Form:.....

Based on The Stone Age student book

Comparing digging sticks (ii)

How did the digging end of each stick change after the test?

1. ✎ .....

.....

2. ✎ .....

.....

3. ✎ .....

.....

4. ✎ .....

.....

5. ✎ .....

.....

6. ✎ .....

.....

If you were a Stone Age farmer which tree would you go to for digging sticks?

✎ .....

Comparing digging sticks

Objectives

- To examine how Stone Age people dug in the ground.
- To make fair tests.

Cross-curricular links

History

2a A characteristic feature of the period.

Science

Sc1
2d Make a fair test.
2e Use simple equipment and materials appropriately and take action to control risks.
2i Make comparisons in their observations.
2j Use observations to make conclusions.
Sc3
1a Compare everyday materials on the basis of their material properties.

Resources

The class will need access to a piece of bare ground which has not been fouled by dogs or has not been contaminated with broken glass or other rubbish. You may like to designate this area the Stone Age garden and develop it in activity 12.

You will need pictures of oak, ash, birch, willow, hazel, lime. (These were trees present in Britain in Stone Age times – sycamore and horse chestnut came later). Teacher helpers.

Each child or group will need a short stick (1cm–2cm across) about 15cm long, made of oak, ash, birch, willow, alder, lime, a ruler, a magnifying glass, safety spectacles, a copy of worksheets 11A and 11B (pages 52–53).

Optional

You may like to make a film showing the sticks before use, the children using them and the sticks after use.

Starter

Tell the children that archaeologists have discovered that Stone Age people used sticks for digging to make buildings and for planting seeds for crops. Show the children pictures of the trees and say that they were present in Britain in Stone Age times and they were the trees the people used as a resource. Challenge the children to say whether it would make any difference which wood they used for digging and ask them to suggest a way they could compare the wood from different trees. Steer them to consider easily manageable short sticks and the making of a fair test in which each stick is scratched in the ground a certain number of times to make a hole or a line in which seeds could be planted.

Main activities

1. Issue copies of the worksheet and let the children write their plans for a fair test. When you have approved the plans let them have their sticks and fill in the columns 1 and 2 of the table.
2. Tell them that as there is a section to fill in about how the stick changes they should examine the digging end of the stick closely before they begin and use the magnifying glass.
3. Let the children complete the digging part of the test.
4. The children should return to their classroom and measure their sticks again, re-examine the digging ends and complete the worksheet.

Plenary

The children should compare the results and conclude that hard woods like oak and ash might be suitable digging sticks but soft woods such as lime and birch are not. If a film has been made of the test it could be displayed on the whiteboard.

Outcomes

The children can:

- Make thorough observations.
- Conduct a fair test.
- Draw conclusions from observations.

Growing a Stone Age crop

Objectives

- To grow and care for plants outdoors.
- To appreciate the skill of Stone Age people in farming crops.

Cross-curricular links

Science

SC2

3 Green plants. All aspects of this curriculum area can be taught in this context.

Resources

This activity needs to be begun in March for a picking time in July but see growing requirements on the packet of beans you choose.

Area of soil not fouled by dogs or contaminated with glass. This may be the ground used for testing digging sticks in activity 11A and 11B.

Each child or group will need six broad beans, oak or ash digging stick, three long thin cane-like twigs per growing bean plant to provide support, string, safety spectacles.

Note

Select broad bean seeds for sowing in March and that have long stems so they need support.

Starter

Remind the children of how people of the early Stone Age were hunter gatherers then tell them that in the later Stone Age people began farming. They reared animals and grew crops but still hunted and gathered to make sure that they had enough food. If the children have done activity 11A and 11B you can remind them of it and say that they are now going to sow seeds and grains and raise some crops.

Main activities

1. Issue the broad beans and tell them that as the plants grow they will need support for their stems and show them how they will make three canes into a support by tying the ends together. If they have made the model shelter in activity 8 and learnt how to tie knots in activity 7 remind them of it. Discuss how skills learnt in one area of survival can be useful in another.
2. Let the children dig holes with their digging sticks. The holes should be about 5cm deep but you may like them to experiment by sowing the beans at different depths.
3. Over the following weeks and months let the children inspect their plants regularly. Tell them that other plants growing in the soil close by will take goodness (minerals) from the soil that the bean plants could use. This means that they should remove them by weeding.
4. As the plants grow the children could make the supports and guide the plants stems around them.
5. Later the children should look for flower buds, the opening of the flowers, the visiting of the flowers by bees and development of the pods.
6. Let the children harvest their crop when ready.

Plenary

When the crops are harvested let the children display their pods then open them and display their beans. You could make arrangements for them to be cooked in accordance with school policies.

Outcomes

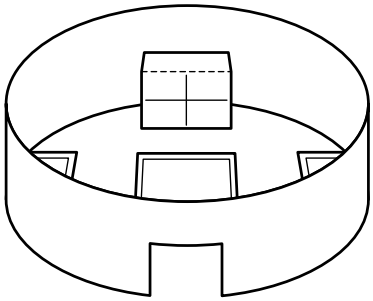
The children learn:

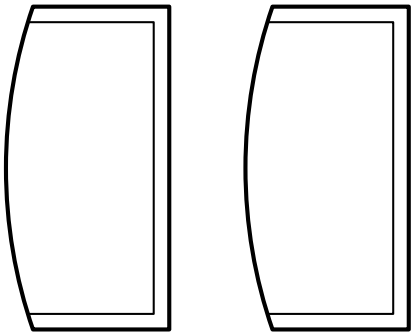
- How to grow a crop.
- About the life cycle of a green plant.

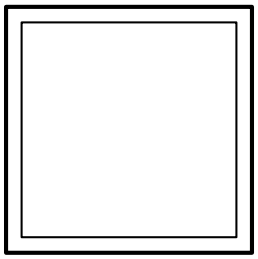
Name:..... Form:.....

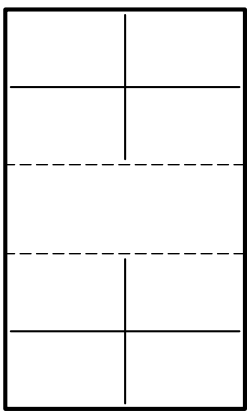
Based on The Stone Age student book

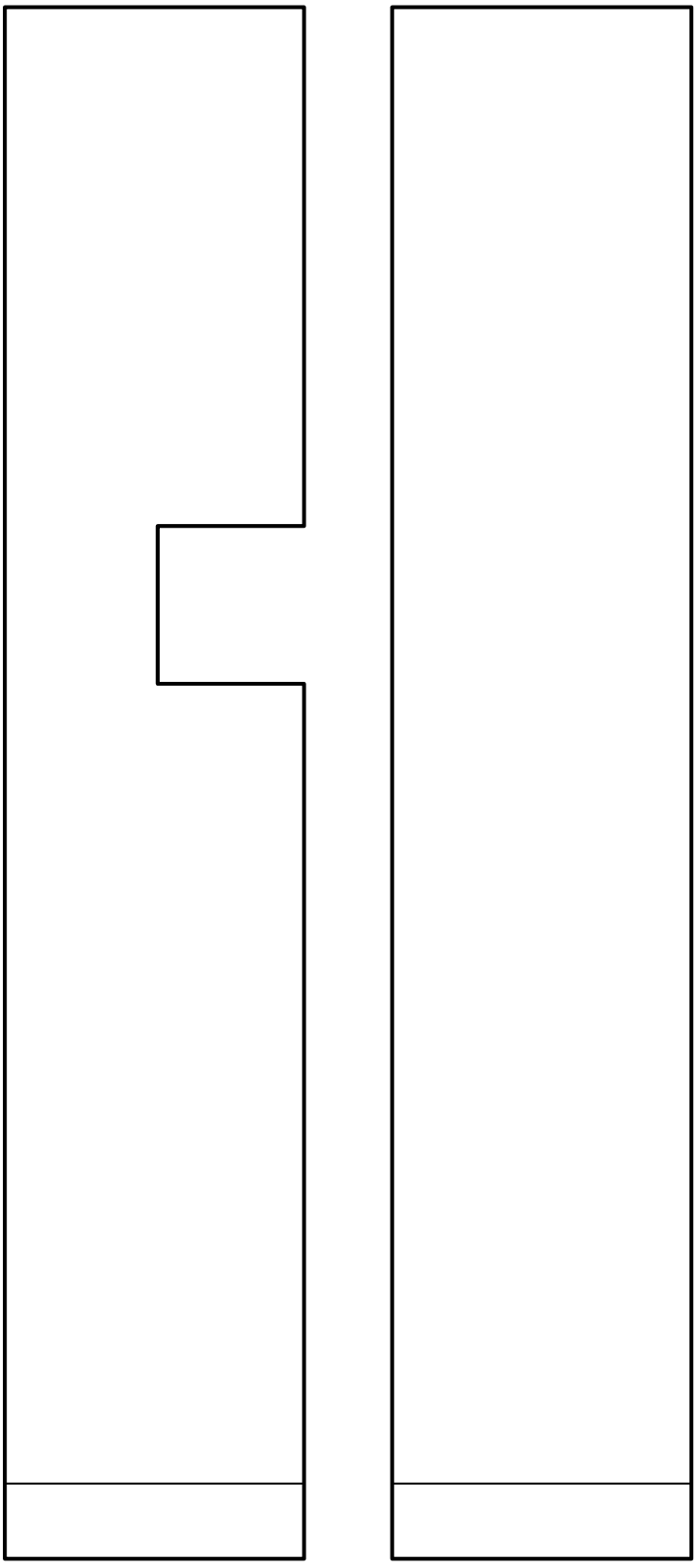
A Stone Age house











A Stone Age house

Objectives

- To construct a model based on archaeological evidence.
- To speculate on the shape and structure of the roof and make it to fit on the model.

Cross-curricular links

History

4a Find out about events from an appropriate range of resources.

Design and technology

2d Cut, shape a range of materials and assemble, join and combine components and materials accurately.
3a Reflect on progress of their work as they design and make, identifying ways they could improve their products.

English

En1
1e Speak audibly and clearly, using spoken standard English in formal contexts.
8b Presenting to different audiences.

Resources

You will need pictures of the houses of Skara Brae, a selection of material for the children to use to make roofs for their houses. These materials may include paper for making a paper cone to fit over the house, strips of paper and a balloon or suitably sized melon to form a mould for a papier mâché hemisphere, modelling clay which may also be used to make a hemisphere, straws, lollipop sticks and soft cloth to simulate turf. Each child or group will need a copy of worksheet 13 (page 58) photocopied onto card, scissors, glue, a bowl of sand (optional).

Starter

Tell the children about the Stone Age people of Skara Brae and the houses they built. Say that these people did not move about like the hunters in activities 3 and 8 but were farmers and sea fishermen. Say that as timber was in short supply some of the furniture inside the houses – beds and a dresser – were made of stone and survived through the centuries and have given archaeologists a good idea about the interior of the house. Mention that there was a hearth lined with stones just like the stones placed around a campfire today to stop the fire spreading. There was no evidence of stone being used for the roof so other materials such as the precious wood or even whale bones may have been used for roof supports and the roof covered in thatch, turf or even seaweed.

Main activities

1. Tell the children that they are going to make a simple model of a stone house and issue copies of worksheet 13. Explain how they should cut out the walls and use the tabs and glue to stick them together to make a circular structure. Remind them to cut out the door.
2. Let the children cut out the beds and trim their rounded ends to fit with the curve of the walls. They should use the picture to help position the beds.
3. The children should then cut out the dresser and fold it along the dotted lines and stand it against the wall opposite the door.
4. They should cut out the hearth and place it in the centre of the room.
5. Tell the children that where the stone houses were built strong cold winds blew so a porch was made to stop the door opening straight onto the outside. Ask them to design and make a porch using some of the remaining card. Look for a small structure a little taller than the door which opens at a right angle to the door.
6. If you wish to make the model more realistic the children could then set it up in a bowl and put sand around the wall on the outside to a depth of half the wall.
7. Remind the children that archaeologists have had to guess about the shape and structure of the roof and challenge them to design and make a roof from your collection of materials. Leave them to decide whether the roof had a central hole to let the smoke out.

Plenary

Let the children display their houses and give their reasons for the roof they have constructed.

Outcomes

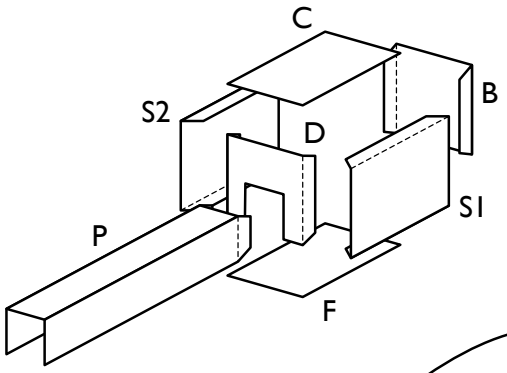
The children can:

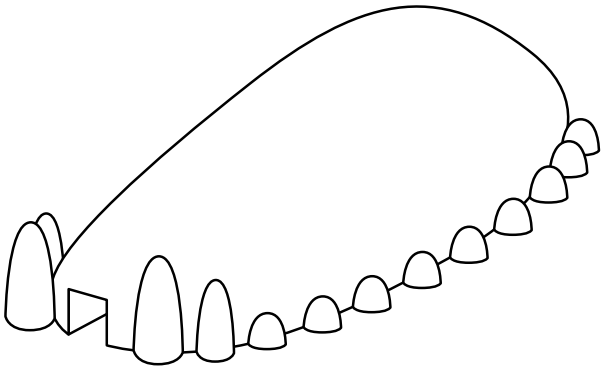
- Make a simple model house from the Stone Age.
- Use a range of materials safely to make a roof.
- Explain the reasons for their roof design and structure.

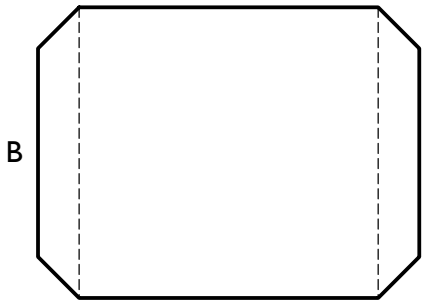
Name:..... Form:.....

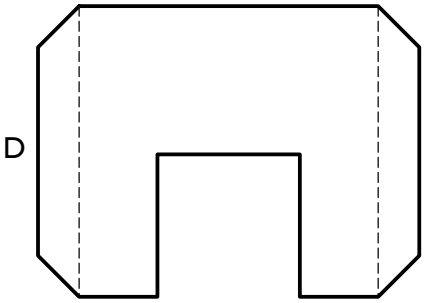
Based on The Stone Age student book

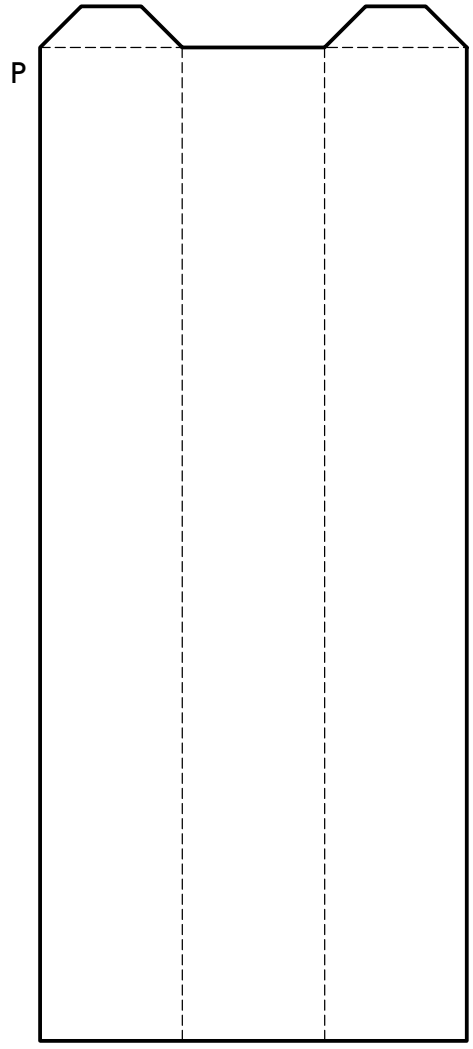
Long barrow











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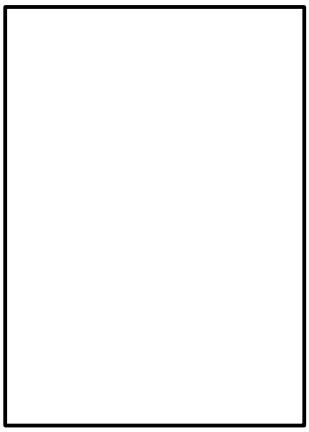

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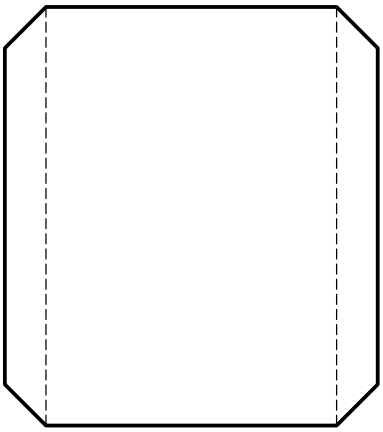

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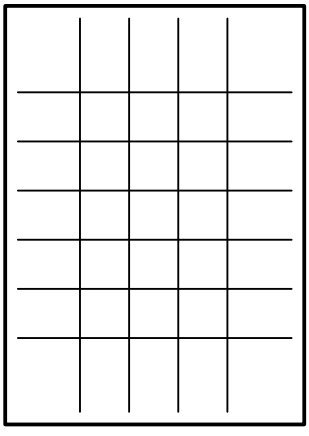

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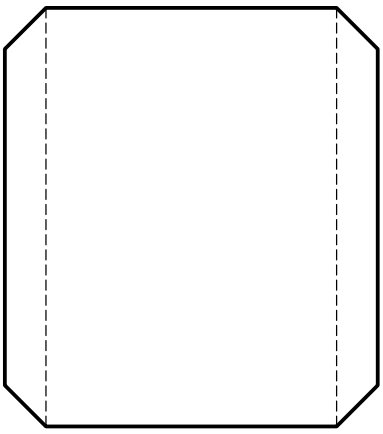


Teacher's sheet

Based on The Stone Age student book

Long barrow

Objectives

- To construct a model long barrow.
- To understand that Stone Age people cared for the dead.

Cross-curricular links

History

2a Characteristic feature of a period including ideas and beliefs of men, women and children in the past.

Design and technology

2d Cut, shape a range of materials and assemble, join and combine components and materials accurately.

3a Reflect on progress of their work as they design and make, identifying ways they could improve their products.

Resources

You will need pictures of a long barrow. Each child or group will need a copy of worksheet 14 (page 60) photocopied onto card, scissors, glue, a tray of sand, cotton wool or other material which could be used to cover the model.

Optional

Stone such as pieces of slate from a garden centre, compost, large tray, grass seed to make a large model for the class.

Starter

Show the children pictures of a long barrow and tell them that the barrows were built in Stone Age times to store the bones of the dead. The bones were stored in a chamber deep in the barrow, which could be reached by a passage. It was along here that the priest would take the bones while others waited at the entrance. The bones of many people were buried in the barrow. It is thought that the land over the burial chamber was considered to be the home of the spirits of the dead and the edge of the barrow was marked with stones to show the extent of this spirit home. Nobody was allowed to go onto the barrow. The entrance to the passage was marked with larger standing stones which may have been brightly coloured and highly decorated.

Main activities

1. Tell the children that they are going to make a model of a simple long barrow and issue the worksheet. Identify the parts of the model using the picture and explain how the model is constructed in the following way:
   - A. The passage way is cut out and folded along the dotted lines.
   - B. The other items are cut out and the floor is laid on the table.
   - C. The sides S1 and S2 are folded and the lower tabs are glued to the floor.
   - D. The back B is folded and is attached to the sides by gluing the tabs.
   - E. The door wall is folded and the tabs are glued to the sides.
   - F. The capstone C is put on the top of the chamber. It may be glued or simply placed on top.
   - G. The passageway is drawn up to the door and attached by gluing the outward folded small tabs.
2. The children should move the model to a tray and cover it as the second picture shows. They could cut out the remaining pieces of card and set them up as standing stones and smaller boundary stones. The standing stones could be brightly painted before placing around the passageway entrance.

Plenary

The children could display their long barrows and compare the way they are decorated. You may like the class to make a long barrow in a large tray using real stone and covering with potting compost and sowing grass seed. When the grass has well formed the children could use small trowels to dig into the compost and remove it to expose the stone model they have built to give them a sense of being an archaeologist.

Outcomes

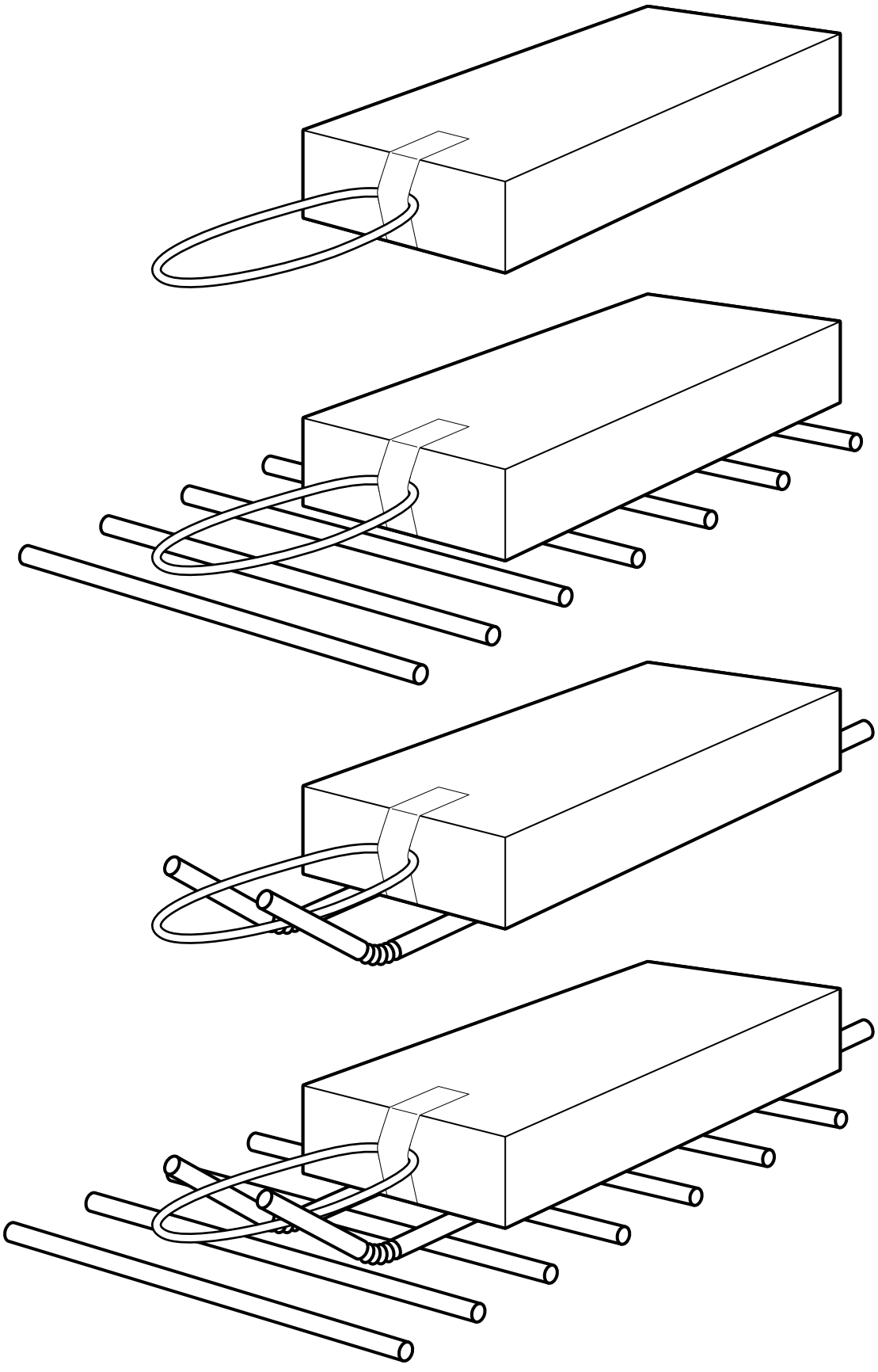
The children:

- Can follow instructions to make a model.
- Learn how Stone Age people cared for their dead.

Name:..... Form:.....

Based on The Stone Age student book

Moving stones



Moving stones

Objectives

- To explore ways in which Stone Age people may have moved large stones over land.
- To make careful observations when making comparisons.

Cross-curricular links

Science

Sc1

1a It is important to test ideas using evidence from observations.

2e Use simple equipment and materials appropriately and take action to control risks.

2j Use observations to draw conclusions.

Sc4

2c About friction as a force that slows moving objects and may prevent objects from starting to move.

Resources

You will need pictures of stone circles and Stonehenge. A selection of books of different thicknesses to rest on the wooden block. Try the experiment before the children and find out which books are not so heavy as to make the elastic band come loose.

Each child or group will need a copy of worksheet 15 (page 62), a wooden block, access to the books, an elastic band, sticky paper, straws, plus two straws with bendy ends.

Starter

Show the pictures of the large stone monuments. Say that archaeologists are not sure what was the purpose of the monuments but it could be connected with the spirits of the dead and may also be used to tell the time of year by the way the Sun shone on the stones. Tell the children that what is certain is that the stones were moved long distances over land and that large numbers of people must have pulled them. The way the stones were prepared before pulling may have helped them to move along.

Main activities

1. Issue the worksheet and go through the four activities. Emphasise that the activity is about modelling what may have happened and that the wood block represents a large stone and the straws represent tree trunks or very thick straight branches. The person pulling the block represents a large number of people who would have had to pull the real thing.
2. In the first activity the children should firmly stick the elastic band to the wooden block. If when they pull the block they detect very little stretching in the elastic band, let them select a book which allows some stretching but does not unstick the elastic band.
3. In the second activity the children should mount the block (and book) on four straws and put another four or more straws in front of it. They should then pull and compare the stretchiness of the elastic band and compare how hard they had to pull in activities 1 and 2.
4. In the third activity the children should stick two bendy straws to the underside of the block to make a sled. They can then drag the block (and book) and make more comparisons.
5. In the fourth activity they can mount the sled on the straws as in the second activity and make more comparisons.
6. The children should write a short report of their findings.

Plenary

The children could then read out their reports. They may find that the greatest effort was needed to pull the block on its own, less effort was needed using the sled, even less effort when using the rollers and least effort when the sled was used on the rollers. These findings could be checked by you demonstrating the use of a force meter instead of an elastic band.

Outcomes

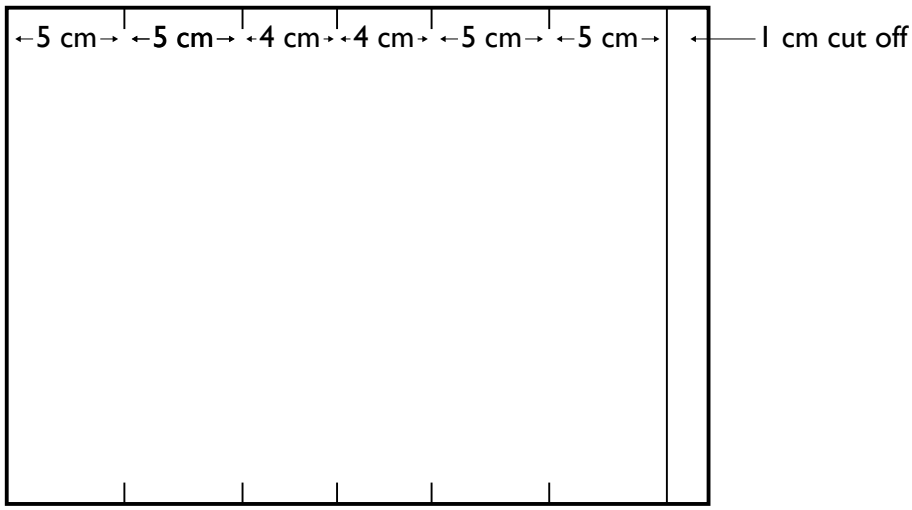
The children can:

- Make careful observations.
- Draw conclusions from their findings.
- Speculate on how Stone Age people moved large stones.

Name:..... Form:.....

Based on The Stone Age student book

A stone circle and the Sun (i)



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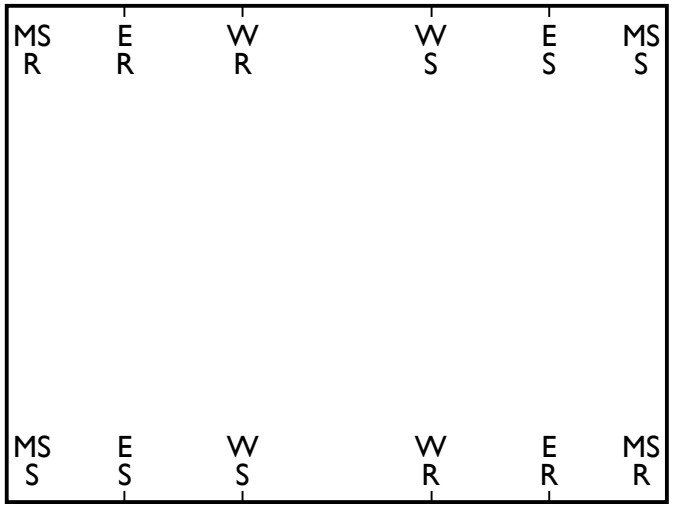

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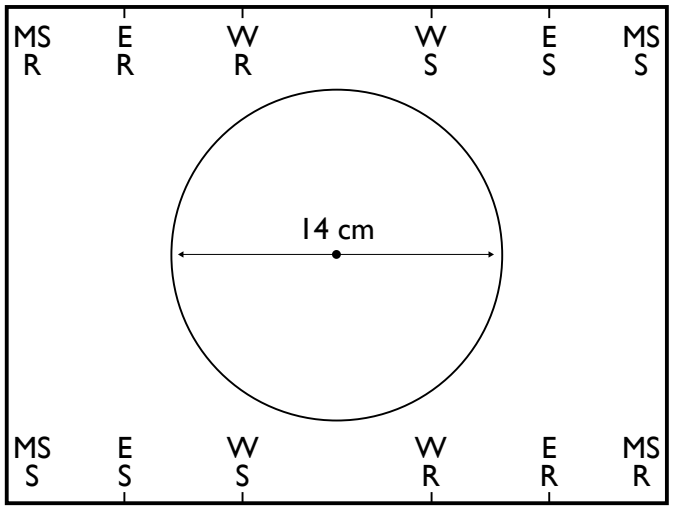

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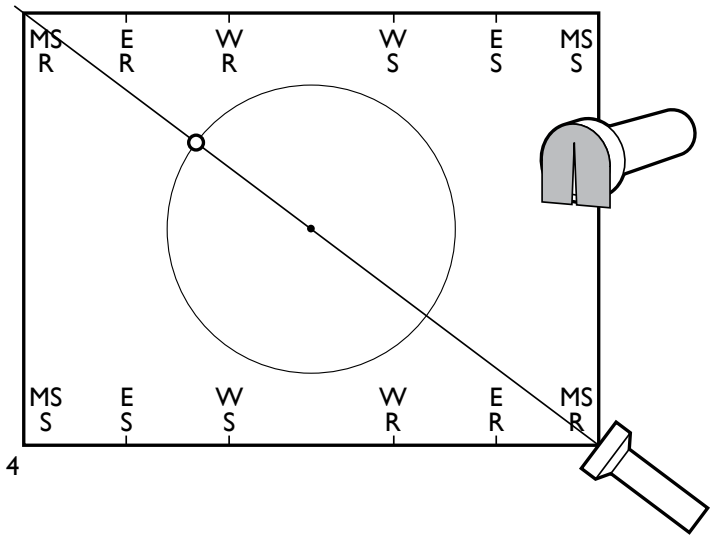
Name:..... Form:.....

Based on The Stone Age student book

A stone circle and the Sun (ii)



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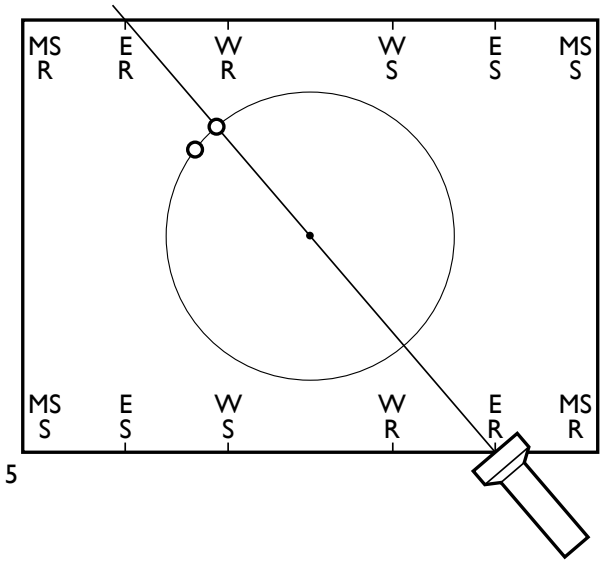

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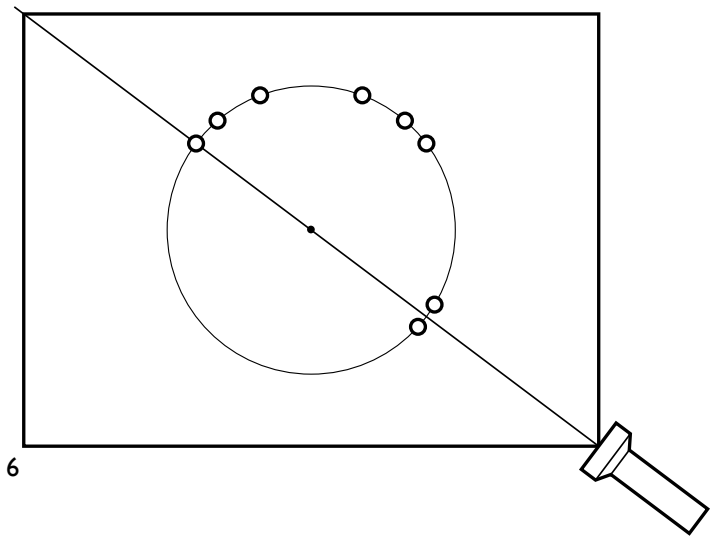

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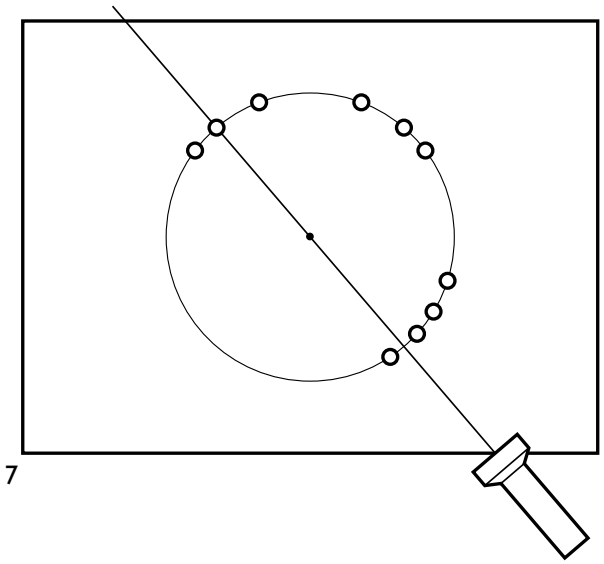


7

A stone circle and the Sun

Objectives

- To appreciate the complexity of building a stone circle.
- To demonstrate how a stone circle may have been used to identify events in the movement of the Earth around the Sun.

Cross-curricular links

History

2a A characteristic feature of the period.
4a To find out about people from an appropriate range of resources.

Science

Sc4
4d The Earth orbits the Sun once each year.

Design and technology

2d Measure and shape a range of materials.
3a Reflect on the progress of their work and identify ways they could improve their product.

Mathematics

Ma 3
4b Choose and use suitable measuring instruments for a task, read scales with increasing accuracy.

Resources

You will need pictures of stone circles.

Each child or group will need a copy of worksheets 16A and 16B, a piece of A4 paper, a torch, a piece of card to fit over the front of the torch, scissors, sticky paper, ruler, pencil, pair of compasses or circular object with a diameter of 14cm, 15 pieces of modelling clay about 1cm high (to represent stones in the circle).

Starter

Show the children the pictures of stone circles. Tell them that nobody is really sure what they were used for but many archaeologists believe that they were temples which were homes for the spirits of the dead. They also believe that the circles allowed people to tell the time of the year by the way the Sun cast light on the stones or the way the stones could be used to make views of the Moon. Tell them that whatever their use they took a great deal of making so perhaps one or both of these ideas may be correct.

Main activities

1. Tell the children that they are going to make a model stone circle to tell when it is midsummer, when spring and autumn begin (at the equinoxes) and when it is midwinter. They are going to use a torch as a model Sun. Remind the children that they should never look at the Sun as it can damage their eyes.
2. Issue worksheet 16A and ask the children to measure 1cm in from one end, draw a line and cut off the thin strip.
3. Ask the children to measure out the dimensions and mark them as shown in step 1.
4. Ask the children to label the marks. MS R = midsummer sunrise, ER = equinox sunrise, WR = Winter sunrise. WS = winter sunset, ES = Equinox sunset, MSS = midsummer sunset.
5. Let the children set a pair of compasses to give a radius of 7cm (or use a circular shape 14cm in diameter) and draw a circle as step 3 shows.
6. Issue worksheet 16B and let the children make a torch mask with a slit in it as shown in step 4.
7. Darken the room and let the children shine their torches from MSR on one edge of the paper to MSR on the other.
8. Let them take a small piece of modelling clay (stone) and place it in the circle so that the beam of light shines on it as step 4 shows.
9. Move on to step 5 and let the children line up the second 'stone', then move on and line up all six stones. This completes the time measuring device of the circle so the children can move on to marking out the rest of the temple which is concerned with providing a home for the spirits of the dead.
10. In step 6 the children mark out two stones in the circle, which allow the beam to shine past them onto the stone recording midsummer sunrise.
11. In step 7 a second pair of stones are added which allow light to pass between them and shine on another stone at the far side of the circle. The children then continue to add more stones to the circle which do not affect the beams of light.

Plenary

The children demonstrate how light passes across their stone circles. You could discuss with the children how complicated it must have been to set up a real stone circle and say that it is another example of Stone Age people being much more intelligent than they are sometimes portrayed in films and on the television.

Teacher's sheet

Based on The Stone Age student book

Outcomes

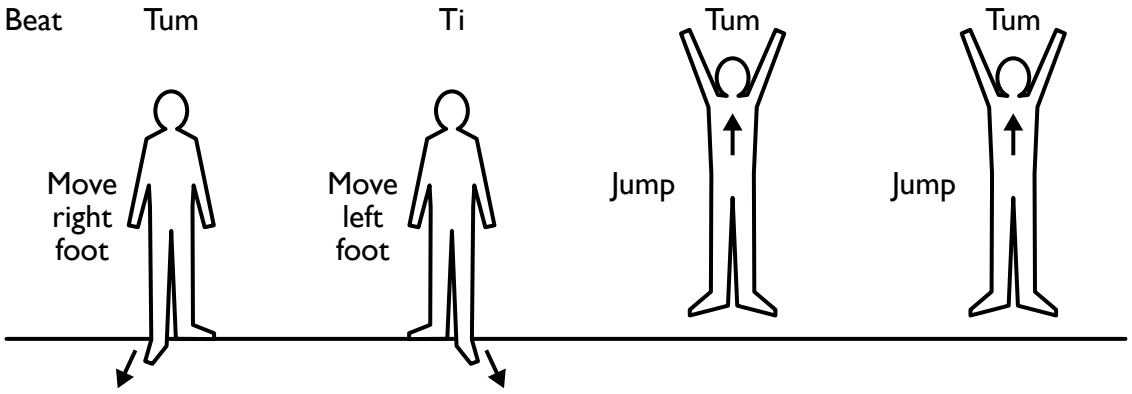
The children can:

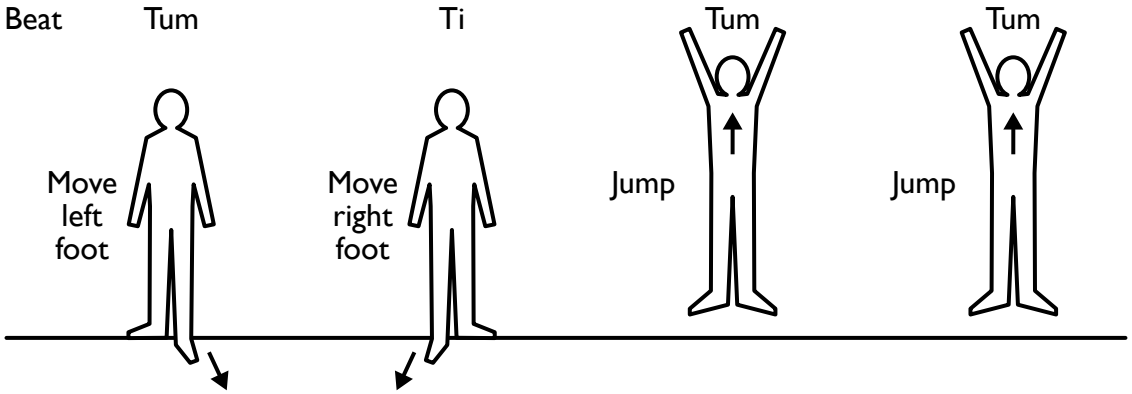
- Appreciate the complexity of building a stone circle.
- Make a model stone circle and demonstrate how a stone circle may have been used to identify events in the movement of the Earth around the Sun.

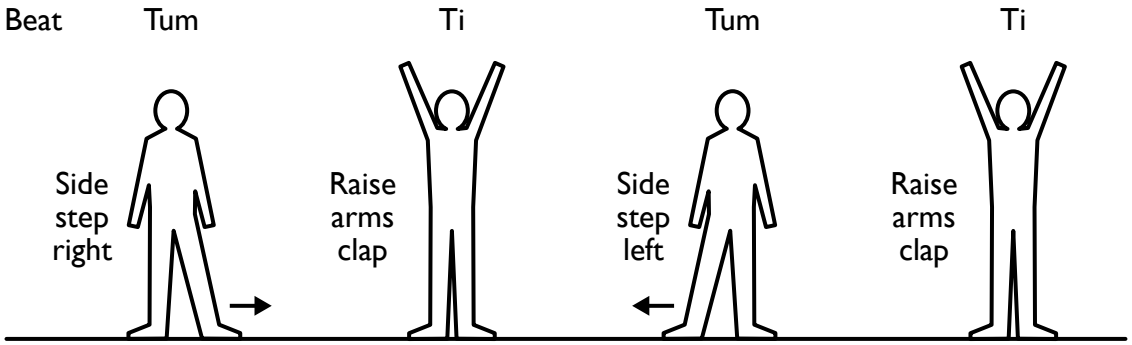
Name:..... Form:.....

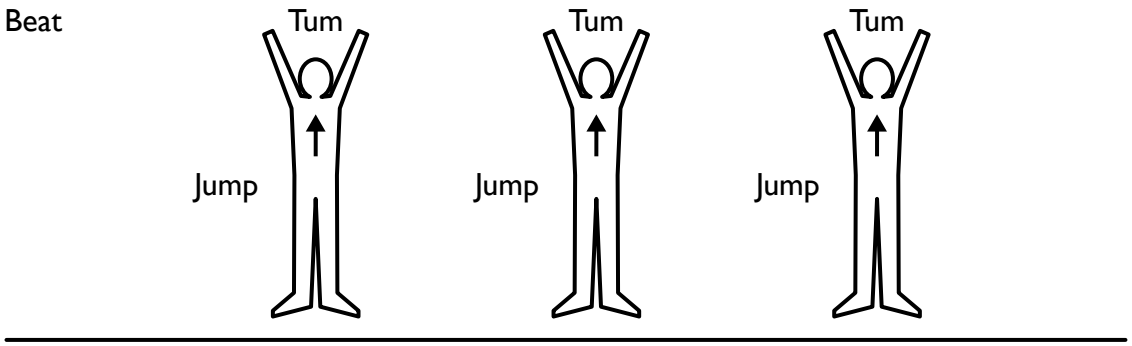
Based on The Stone Age student book

Dancing and music









Dancing and music

Objectives

- To learn a simple dance.
- To extend the dance with individual ideas.
- To perform as a group.

Cross-curricular links

Music

1b Play tuned and untuned instruments with control and rhythmic accuracy.
1c Practise, rehearse and present performance with an awareness of the audience.
3b Explore and explain their own ideas and feelings about music using movement and dance.

Physical education

6a Create and perform dances using a range of movement patterns including those from different times, places and cultures.
6b Respond to a range of stimuli and accompaniment.

Resources

You will need a video clip of traditional dancing in Africa, Asia or South America (optional), a selection of percussion instruments (none with metal parts) and simple wind instruments for some of the children to play.

Each child or group will need a copy of worksheet 17 (page 68).

Starter

Tell the children that people who still live hunter-gatherer existences today have a rich culture, which includes music and dance. From this archaeologists have speculated that Stone Age people also performed music and dance and there is evidence of simple flutes having been made in the Stone Age. Tell the children that they are going to learn a simple dance that may have been performed by Stone Age people.

Main activities

1. Issue the worksheet and go through the dance sequence with the children.
2. Let the children practise the movements individually or in small groups.
3. Bring the children together to perform the movements.
4. Point out the beat and demonstrate with two drums of different tone (e.g. bongos) how the beat is performed. Select children to have a try at keeping the beat.
5. Rehearse the dance with the whole class with the two drums.
6. Let more children play instruments and practise with the drummers.
7. Rehearse all the musicians and dancers together.

Plenary

The children could perform their dance as part of an assembly. Afterwards they could discuss how they felt about dancing and playing, and the dancers could suggest ideas for developing the dance and the musicians suggest ideas for a change of tempo or a change in combination of instruments playing at the same time.

Outcomes

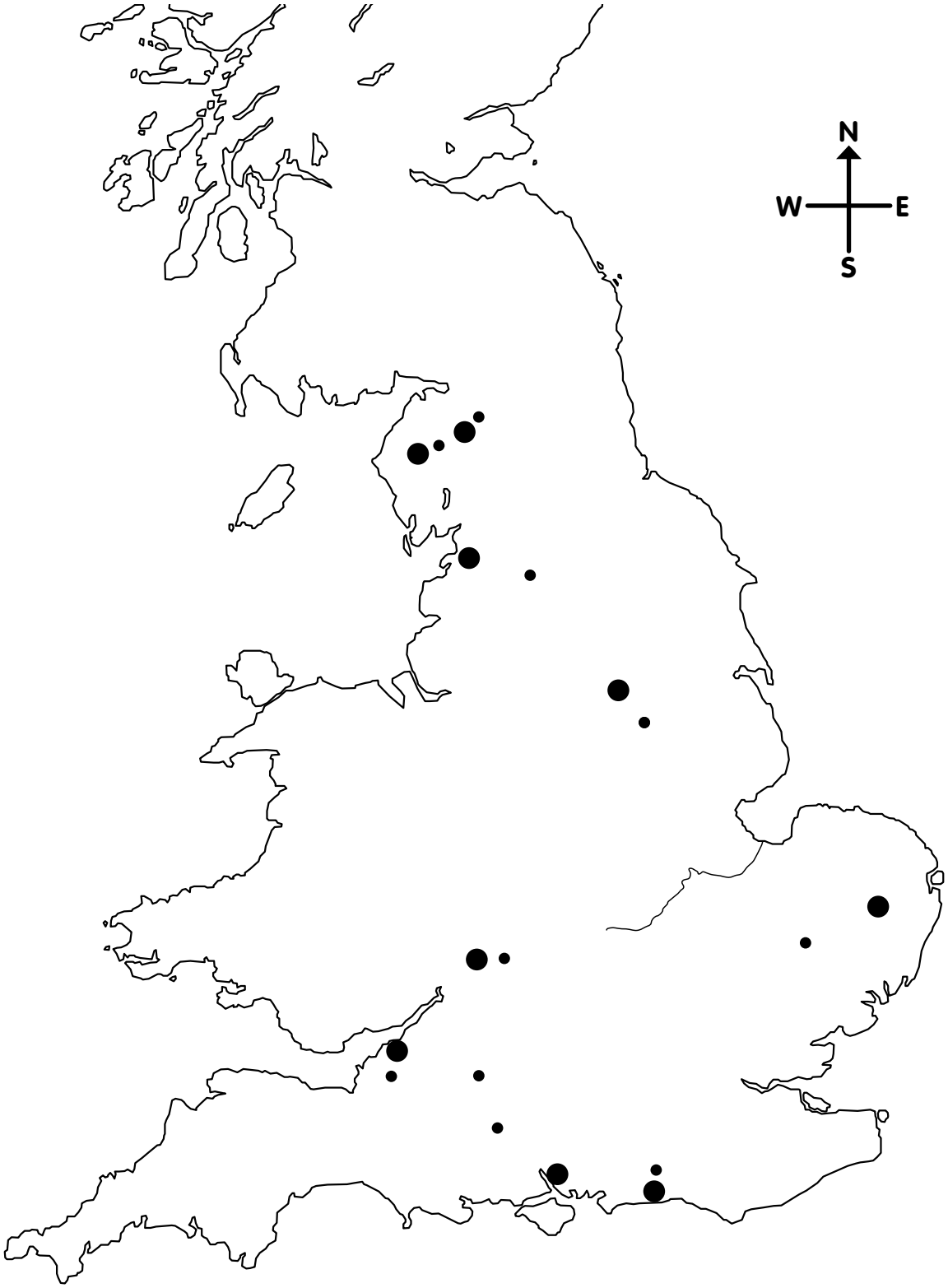
The children can:

- Learn and perform a dance.
- Learn to play music in group.
- Suggest ways of developing the dance and the music further.

Name:..... Form:.....

Based on The Stone Age student book

Stone Age sites (i)



Stone Age sites (i)

Objectives

- To learn how to locate Stone Age sites using a map and compass directions.

Cross-curricular links

History

41 Find out about people from an appropriate range of sources of information including ICT based resources.

Geography

2c Use maps at a range of scales.

Resources

Note

This activity specifically looks at a few sites in England but this is only to serve as an example of how locations can be found. You may like to select your own favourite sites from other parts of the British Isles and present them in a similar way using your own versions of worksheets 18A and 18B.

You may like to examine web sites of some or all of the locations featured on worksheet 18B and display a picture say of Long Meg on the whiteboard or the entrance to a cave. You may like to add the first letter to the town and city represented by the large dots on the maps to help the children find them.

Each child or group will need a copy of worksheets 18A and 18B (pages 70 and 72) and a map or a number of maps of England showing major towns.

Starter

Tell the children that there is evidence of activities of Stone Age people all over Europe but they are just going to try and find a few of them in England. Show the children some pictures from the web sites you have selected and tell them that they are going to use maps to locate them.

Main activities

1. Issue worksheet 18A and the maps. Tell the children to locate the towns and cities represented by the large dots. You may like to spend some time talking about different parts of the country and guide the children through their maps to locate the towns and cities. The time spent here will depend on their previous experience of maps.
2. When all the towns and cities have been identified and labelled issue worksheet 18B and point out how the use of the compass points is used to locate the Stone Age sites.
3. Let the children locate the sites and label them with an appropriate letter or their full name.

Plenary

Review the children's work and ask them what information the sites provide about the Stone Age people's ways of life. Look for answers about worshipping in temples, burying the dead, using astronomical features to measure time, mining and shaping flint, hunting a range of animals and living in caves from time to time, and making carvings of animals and people.

Outcomes

The children:

- Can use maps to find locations of Stone Age sites.
- Appreciate that the sites provide evidence of the activity of people in the Stone Age.

This activity specifically looks at a few sites in England but this is only to serve as an example of how locations can be found.

Name:..... Form:.....

Based on The Stone Age student book

Stone Age sites (ii)

A Stonehenge
Location: north west of Southampton.
A huge circular temple and astronomical observatory.

B Long Meg and her daughters
Location: north east of Penrith.
Long Meg is a large standing stone and her daughters form a stone circle. The stones may have been for using the position of the Sun to tell the time of year.

C Grimes Graves
Location: south west of Norwich.
Flint mines. The pieces of flint were made into cutting tools such as knives, axes and arrowheads.

D Wookey Hole
Location: south of Bristol.
A small cave in this cave system is called the Hyena Den and in addition to being occupied by hyenas it was also occupied by hunters as long ago as about 35000 BC as they moved across the country.

E Castlerigg Stone Circle
Location: east of Keswick.
A stone circle which may have been used as an astronomical observatory.

F Belas Knap
Location: east of Cheltenham.
A long barrow built about 3500 BC in which to bury the dead.

G Victoria Cave
Location: east of Lancaster.
Bones of hippos, elephants, rhinoceros, bear and red deer have been found here. It was used by Stone Age hunters as a shelter and they left behind carved flint and ivory tools and a deer antler that had been made into a harpoon.

H Cresswell Craggs
Location: south east of Sheffield.
These caves were occupied by people at various times in the Stone Age. Carvings of a horse's head, reindeer and a dancing man wearing an animal mask.

I Avebury
Location: east of Bristol.
It is believed that this was an enormous temple and people travelled long distances to take part in ceremonies or to watch them.

J Cissbury Ring
Location: north of Worthing.
Flint mines were dug here in about 3500 BC using antlers as picks to break up the ground.

Stone Age sites (ii)

Objectives

- To learn how to locate Stone Age sites using a map and compass directions.

Cross-curricular links

History

41 Find out about people from an appropriate range of sources of information including ICT based resources.

Geography

2c Use maps at a range of scales.

Resources

Note

This activity specifically looks at a few sites in England but this is only to serve as an example of how locations can be found. You may like to select your own favourite sites from other parts of the British Isles and present them in a similar way using your own versions of worksheets 18A and 18B.

You may like to examine web sites of some or all of the locations featured on worksheet 18B and display a picture say of Long Meg on the whiteboard or the entrance to a cave. You may like to add the first letter to the town and city represented by the large dots on the maps to help the children find them.

Each child or group will need a copy of worksheets 18A and 18B (pages 70 and 72) and a map or a number of maps of England showing major towns.

Starter

Tell the children that there is evidence of activities of Stone Age people all over Europe but they are just going to try and find a few of them in England. Show the children some pictures from the web sites you have selected and tell them that they are going to use maps to locate them.

Main activities

1. Issue worksheet 18A and the maps. Tell the children to locate the towns and cities represented by the large dots. You may like to spend some time talking about different parts of the country and guide the children through their maps to locate the towns and cities. The time spent here will depend on their previous experience of maps.
2. When all the towns and cities have been identified and labelled issue worksheet 18B and point out how the use of the compass points is used to locate the Stone Age sites.
3. Let the children locate the sites and label them with an appropriate letter or their full name.

Plenary

Review the children's work and ask them what information the sites provide about the Stone Age people's ways of life. Look for answers about worshipping in temples, burying the dead, using astronomical features to measure time, mining and shaping flint, hunting a range of animals and living in caves from time to time and making carvings of animals and people.

Outcomes

The children:

- Can use maps to find locations of Stone Age sites.
- Appreciate that the sites provide evidence of the activity of people in the Stone Age.

Teacher's sheet

Based on The Stone Age student book

The size of Stone Age structures

Objectives

- To appreciate the size of Stone Age structures.
- To check estimates with measurements.
- To work in small groups.

Cross-curricular links

Mathematics

4a Recognise a standard unit of length and use it to make sensible estimates.
4b Use a suitable measuring instrument.

Resources

You will need an open space such as a school field. You may like to have a large amount of corrugated cardboard to make a model of Long Meg. A sports tape. Teacher helpers. Each child or group will need a metre rule.

Starter

Tell the children that although they have spent a great deal of time studying Stone Age people it helps to appreciate them more if you consider the size of the things they made and used. Tell them that they are going to begin by estimating sizes and then measuring them out.

Main activities

1. Take the class out onto the school field and tell them that a Stone Age house could have an area of 40 square metres. They can appreciate this size if they measure one wall of 8 metres length and another of 5 metres length at right angles to it.
2. Ask three children to estimate these lengths and stand at three corners of the 'house'.
3. Ask another three children to measure out the dimensions correctly and compare the actual measurements with the estimates.
4. Tell the children that a barrow could be 52 metres long and up to 18 metres wide. Ask four children to estimate these lengths and stand at the ends and the widest parts.
5. Ask another four children to use the sports tape to check the estimates.
6. Tell the children that some of the stones used in circles were huge and give Long Meg as an example, being 3.6 metres long. Ask two children to estimate this distance and another two to measure it.
7. You may like to stick the cardboard together to make a structure 3.6 metres long and, if it is safe to do so, raise it so the children can see how tall it is.
8. Tell the children that the Castlerigg circle is 30 metres across and let them estimate its size, then measure it out.
9. Arrange the children around the circle and say that each one represents a stone. There are 38 stones in the real circle so to make yours a more accurate representation you may have to recruit children from another class. Take photographs of the circle for final display work.

Plenary

Back in the classroom discuss with the children how looking at the sizes of the monuments changes their ideas about Stone Age people. You may also add that a long barrow may be taller than Long Meg.

Outcomes

The children:

- Can make sensible estimates.
- Can make accurate measurements.
- Gain further insight into the lives of Stone Age people by considering the dimensions of the structures they made.

Teacher's sheet

Based on The Stone Age student book

A day in the Stone Age

Objectives

- To review the work in the activities in the Stone Age.

Cross-curricular links

History

5C To communicate their knowledge and understanding of history in a variety of ways.

English

En 3

9a To imagine and explore feelings and ideas, focusing on creative uses of language and how to interest the reader.

Resources

This will depend on how you wish to structure the activity.

If you wish to have a Stone Age day you may like the children to dress as Stone Age people and bring in a Stone Age lunch. They may repeat some of the previous activities such as cave painting and knot tying and model making.

If you wish this to be an opportunity for the children to describe an imaginary day in the life as a Stone Age child they could spend the time reviewing their work and selecting information to write about.

Starter

Begin by winding time back thousands of years to the time of the Stone Age, then set the children to the task you have selected.

Main activities

These will depend on your choice of approach.

Plenary

The children could read out their work and discuss it or, if they have had a Stone Age day, discuss how life was very different from today.

Outcomes

The children:

- Can talk or write confidently about Stone Age life.