

Stone Age – Science Ideas Web

Nutrition - eating the right foods

Supermarkets didn't exist in the Stone Age. People hunted animals such as rabbits and deer to survive.

 What else would Stone Age people eat apart from animals?
 What would they drink?
 Would they eat the same things as we eat today?

Observing and describing animals

We can track where an animal has moved by studying its footprints and other clues such as scents or fur. Stone Age people used tracking to find and follow herds of animals to hunt them for food.

⑦ Find out about the footprints of different animals. How are the footprints the same?
⑦ How are they different? ⑦ What can we predict about the animal from its footprint?
⑦ Make your own footprint and compare it with your partner's. How is it the same?
⑨ How is it different?

Sounds and their sources

When Stone Age people eventually became farmers they used music for entertainment and for dances to ensure a good harvest. For example, they made rattles from dried gourds.

 Can we make a rattle, using different materials to put inside the rattle?
 Which materials make the loudest sounds?
 Which make the quietest sounds?
 Does the sound change when we use a different material to make the rattle body?

Edited by:



Millgate House Education

Habitats and environment

Stone Age people ate almost everything, including insects. Grasshoppers and grubs would be popular treats.

Where would be the best place for a Stone Age hunter to look for insects?
Why?
Imagine that some Stone Age people come to visit our school. Where on our school grounds would they find insects for tea?

Comparing and grouping rocks

Stone Age people used rocks for making tools, grinding flour and producing sparks to make fire.

 Look at a collection of rocks. How could you describe their properties?
 Which rocks do you think Stone Age people used for which purpose?



Melting glaciers (ice rivers) in Norway have revealed Stone Age objects such as mittens, shoes, weapons and walking sticks. These objects help archaeologists to find out more about Stone Age people.

⑦ Can we help an archaeologist who has found an ice block containing a Stone Age object frozen in the ice? ⑦ What is the quickest way to melt the ice and reveal the object inside?

Identifying and grouping everyday materials

There is lots of evidence to show what things Stone Age people made and used. Pottery, carvings and tools have been found on archaeological sites around the world.

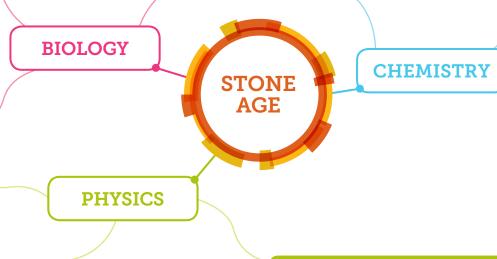
 Look at examples of Stone Age tools, pottery and carvings. How could you group these objects?
 Can you identify which materials are used for each one?
 Why do you think Stone Age people used these materials?

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Written by: **Louise Parks,** Bournmoor Primary School







Light sources

Stone Age people painted pictures on the walls of caves. Caves are underground and don't get very much light.

⑦ How did Stone Age people get light inside the caves to do their paintings? ⑦ How would you get light if you wanted to explore a cave?

Seasonal Change

Early Stone Age people travelled around to find the best place to settle. They chose places where there was plenty of food that they could collect and hunt.

Which season do you think Stone Age people would have preferred and why?
Which seasons would be difficult to survive through and why?
Can you suggest how they might be able to survive the hardest seasons?



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Different skeletons

Scientists have found and studied skeletons of Stone Age animals. Human skeletons help scientists find out how prehistoric humans' bodies are different from our bodies today.

Dook at examples of animal skeletons.
Can you name the animals that they are from?
How can you tell?
Can you label the parts of their skeletons?
How does a skeleton from a modern day human compare with a Stone Age person?
Can you see any differences?
What does this tell us about prehistoric people?

Habitats and environment

Stone Age humans lived in in different places around the world. Some lived in Africa, others in Europe, in Asia, in North and South America and even in Australia and New Zealand.

What would it be like to live in these different places?
How would the climate be the same in these places?
How would it be different?
Which climate would you prefer to live in?
Can you identify any animals and plants that are only found in certain places in the world?
Why is this?

Magnets

The Stone Age came to an end when metals were discovered, and this led into the Bronze Age. Some metals are magnetic and others aren't.

 ⑦ Can we find out which metals have magnetic properties?
 ⑦ How do you think magnetic properties might have been important to Stone Age people?

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Millgate House Education

Conditions for growing plants

Stone Age people developed from being hunter-gatherers into farmers. Stone Age farmers lived in small communities and fed themselves from crops grown on their land.

How do you think Stone Age people decided which plants to grow for food?
What features would they look for in a plant that would be good to grow for food?
How do you think they discovered the best conditions for growing plants for food?
If we want to grow plants for food, what conditions should we give them?

Mixtures of materials

Stone Age people invented simple ovens around 9,000 BC. They made bread by mixing together flour and water. They made flour by grinding grain between two stones.

Can we make our own Stone Age bread by grinding grain in a mortar?
 What happens when we mix flour and water?
 How do the ingredients compare before and after mixing?
 What happens when we add other ingredients to the mix?

Comparing and grouping rocks

Stone Age people created hunting weapons and tools from rocks and stones. The kind of weapons and tools they needed changed as they became farmers instead of hunter-gatherers.

 Observe, compare and group a selection of rocks. Which do you think would make the best tools for hunting and why?
 Which do you think would make the best tools for farming and why?
 How could we find out how strong each rock type is?

Soil for growing plants

Stone Age people developed from moving around to find food to living in one place and growing plants for food where they lived.

⑦ Imagine a Stone Age community is searching for a good place to set up a new settlement. If we compare soil samples from different places, which would be a good place to settle and grow food? ⑦ Can we find out by germinating a seed in different soil samples?

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Written by: Louise Parks, Bournmoor Primary School





BIOLOGY STONE AGE PHYSICS

Sounds and their sources

Stone Age hunters would listen to the sounds animals make. They would recognise the sounds and then know which types of animal they were hunting.

 ⑦ Can we find out how far away we can hear a sound? (This works best if we choose a fairly quiet sound.)
 ⑦ Can you explain why the sound is fainter the further away it is?

Effects of forces in producing movement

Stone Age people walked everywhere until wheels were invented. However, there were no roads for wheeled vehicles to travel on.

⑦ Can we find out how well wheeled vehicles move on different surfaces? ⑦ We could try soil, small twigs, grass, flat stone, small stones and ice. Do small wheels or big wheels work best on different surfaces?



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Ecosystems

Stone Age humans hunted animals such as deer and boar. Eventually they developed from being travellers into farmers. They would have cleared land to create space for their fields.

How would removing trees affect the water cycle?
 What effect does removing trees have around rivers?
 How might farming affect other habitats?
 How has Stone Age hunting affected which animals are alive today and which ones are extinct?

Animal classification keys

Stone Age people shared the world with animals such as sabre tooth tigers and giant beavers. We know this because of evidence found in cave paintings and in archaeological sites.

⑦ Imagine that a Stone Age hunter is visiting our school. How are the animals in Britain today different from the animals that were alive in Stone Age Britain? ⑦ Can we create a system to classify the animals the hunter would have met in Stone Age Britain?

Forces: buoyancy

By 50,000 BC, humans travelled across sea to find new land. Stone Age boats were made from materials like reeds and wood.

⑦ Can we design and make a boat from natural materials? Think carefully about the shape of the boat, as this will affect how much cargo the boat will be able to hold.
⑦ Can we find out which shape of boat will be able to carry the heaviest load and why?

Edited by:



Millgate House Education

Adaptation and extinction

Woolly mammoths were common animals in Ice Age Britain. They are relatives to modern elephants but had long fur and smaller ears. Mammoths are extinct today, but scientists are not certain why this happened.

Woolly mammoths would have been adapted to their environment at the time in order to survive. How many adaptations can you think of that would help them to survive?
What are the different theories about why they became extinct?
Can you present a case for the one that seems most likely?

Pure substances and mixtures

Scientists believe that some of the prehistoric cave paintings were created by mixing powders and liquid to make the right consistency to blow the paint through a tube (similar to spray paint).

⑦ Can we use powder paint and different liquids to find out what happens when powder paint is mixed with a variety of liquids?
⑦ Does it create a solution or a suspension or both?
⑦ What happens when we add different amounts of powder and liquid together?

CHEMISTRY

Composition of the Earth

Stone Age people did not usually live in caves. However they sometimes used caves as shelters and for cave paintings – a kind of early diary. Caves are formed in different ways. They can form for example through volcanic activity, by rock or salt deposits dissolving in water or by the action of the sea.

 What can we find out about how lava from a volcano could form a cave?
 Where does the lava come from?
 What can we find out about what happens when a volcano erupts?

Natural resources

The Stone Age came to an end when metals were discovered; this led to the Bronze Age. In the Bronze Age, tools were made from this new material.

How do the properties of stone and metal compare?
How are they similar and how are they different?
What difference might this have made to how people lived in the Bronze Age?
What metal did people start using first?
Where did this metal come from?
How would metal tools be made?

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Written by: **Louise Parks,** Bournmoor Primary School



ROYAL SOCIETY OF CHEMISTRY

Sound: pitch and volume

BIOLOGY

There is some evidence that people made and played drums as part of religious rituals towards the end of the Stone Age.

PHYSICS

How does a drum make a sound?
Can we make some simple drums using different materials to make the drumhead?
How does the tightness of the material on the drumhead affect the sound it produces?
Can we use different bowls and pots to create the drum shell?
Do they make different sounds?
Can you explain the difference in the sound they produce?

Light and shadows

STONE

AGE

Stonehenge was built in prehistoric times and there are different ideas about what its purpose was. Many scientists think that Stone Age people were interested in how the light from the sun and moon shone on the circle and created shadows. Others think that it may have been used to measure the movement of the moon in the sky.

 Can we create a mini version of Stonehenge and observe the shadows that form during a day?
 How are the shadows formed?
 How do the shapes created by the shadows change during the day?