



# ICE AGE JOURNEYS TRAINING DAY ACTIVITY PACK - OVERVIEW

Creswell Crags





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## ACTIVITY PACK - OVERVIEW

In 2019, the Young Archaeologists' Club teamed up with the Ice Age Journeys project to deliver a day of activities at the internationally important Creswell Crags in Derbyshire.

YAC leaders had the opportunity to see the 13,000-year-old engravings in Church Hole cave, one of several caves on the site, have a go at the ancient art of flintknapping and learn fun ideas for archaeological activities that don't need a mammoth budget!

This pack contains instructions for activity ideas based on the training day at Creswell Crags and includes additional links to background information about this time period and further activity suggestions.

The day was made possible thanks to funding from the National Heritage Lottery Fund and Historic England on behalf of the Young Archaeologists' Club.





Creswell Crags educational resources provide a useful background to the Palaeolithic. This is a useful source of background information for any session prep and can be found here: [Creswell Crags Education Page](#)

## Hand Stencil Activity

### Background

The most common themes in Palaeolithic cave art are abstract symbols, animals and human hand prints. These prints can be either negative (stencil) or positive (print) and are commonplace during the Upper Palaeolithic in Europe, as well as in other regions. The oldest known hand stencil has been dated to 37,900 BCE and is from the Indonesian island of Sulawesi.

Because hands can vary a lot from person to person, the stencils have allowed archaeologists to identify different individuals who were creating the art. Some believe it is possible to tell men and women apart using the ratios of the index finger to ring finger length. You can also tell their handedness as right-handed people tend to make left-handed stencils (there were more right-handed people in the Ice Age, just like today).



*Ice Age hand stencils from the French cave of Gargas. Image credit: Heinrich Wendel. The Wendel Collection, Neanderthal Museum.*



Many of the hand stencils found in Europe are also missing digits, or parts of digits. Although some of this effect might be people bending their fingers out of the way, there are some that miss parts which are hard to bend independently. It is possible that these fingers had been lost in accidents or from frostbite – or even deliberately amputated.

### Resources

- Non-toxic powder paint in earthen colours (red ochre, yellow ochre and black work best) and water
- Stiff bristled toothbrushes or gardening water spray bottles
- Craft paper/brown paper (non-shiny)

### Health and Safety

Take care to supervise and prevent paint from going into eyes as it can spray unpredictably. Old clothes are highly recommended! Hands should be washed after the activity.

### Activity Instructions

1. Make up the powder paint to a thin consistency. You can explain while making it that Ice Age people would use powder paint as well, using pigments found in nature – ground up charcoal, red ochre (haematite) or yellow ochre (limonite).
2. Hold your hand against the paper and splatter the paint to create a handprint.
3. When the handprint panel is finished, challenge the group to find their own handprints again, or each others.

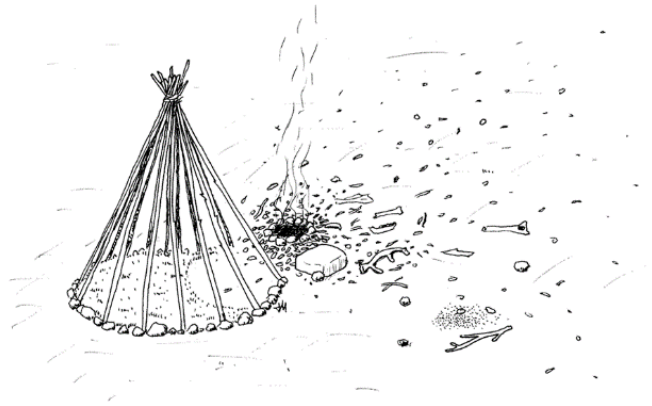


- a. How many handprints are right or left handed?
- b. Does this match with the truth of who made them?
- c. Can you tell the difference between an adult print and a child, or different ages of children?

# Soap Knapping Activity

## Background

Ice Age people are often known as “cavemen”, but this name is very misleading. Caves preserve archaeological remains very well, but we know that open-air campsites were also used whilst people were on the move. Two campsites from the end of the Upper Palaeolithic have been found in the region around Creswell Crags – one at Farndon Fields, outside Newark, and one at Bradgate Park in Leicestershire.



*A reconstruction of a tent at the open-air Ice Age campsite at Pincevent, in France. Most of the information at this site came from flint scatters.*

Because open-air sites are not as protected as caves and the soil tends to be more acidic, bones do not preserve well. These sites are usually identified from clusters of flint fragments called “scatters”. Particularly well-preserved scatters can be studied in detail. Sometimes, different people flintknapping (maybe even teachers and students) can be identified by refitting (putting the flints back together in the reverse sequence that flakes were struck)!

## Resources

- Bars of soap in different colours
- Plastic clay shaping tools
- Tarpaulin/cover mats
- Sticks and red/yellow/orange tissue paper (OPTIONAL)

## Health and Safety

This activity may not be suitable for people with skin conditions or allergies. Be sure that the cutting tools are being used safely as they may cause injury. Hands should be washed after activity.



## Activity Instructions

Carving “stone tools” from bars of soap leaves behind a pattern of flakes just like a real flintknapper would. By using different coloured soaps, the group can see what kind of traces might be left behind for an archaeologist.

1. Place the tarpaulin and have the children kneel in different places. You could construct a faux “campfire” from sticks and tissue paper in the centre that they are sitting around.
2. Get the children to peel off flakes of soap as they carve a stone tool (a handaxe is an easy form to choose). Let the flakes fall naturally around them as they work.
3. When everyone is finished, get them to carefully stand up and look at the campsite.
  - a. Can you tell where everyone had been sitting?
  - b. Where do the different “flakes” fall – did any go further than you expected?
  - c. How might an archaeologist work out that several knappers were in a group?
4. You could also walk someone through the flakes (you will get soap on your shoes so be careful!) to show what might happen if the site didn’t get protected and covered right away. A wandering animal would have a similar effect. What does this disturbance do to the pattern of flakes?





## Pleistocene Poop Activity

### Background

The study of past life is called *palaeontology*, and many of the things palaeontologists study are fossils. Fossils can also be very informative in archaeology – whether they are human fossils, or animals that can tell us about the environment or ways in which people were living.

<i>True Form Fossils</i>	<i>Mold/Cast Fossils</i>	<i>Trace Fossil</i>
This kind of fossil is made when the body/tissues of the living thing are preserved, often turning to stone (petrified).	A mold is a “negative impression” where the body/shape of the living thing shows in material which covered it as it fossilized. A cast is a “positive impression” where the space of the body is filled in with new material.	This kind of fossil is not made from the living thing itself, but from signs of its behaviour, like nests, footprints or poo.

Most of the fossils at Creswell Crags are true form – the actual bones of animals that lived and died here. Coprolites (literally meaning “poo stones”) are a kind of trace fossil we have at Creswell Crags. Ours are from the Ice Age and were left by hyenas. Hyenas eat large amounts of bone as part of their diet, which increases the chances of the bone becoming fossilized as it is filled with the mineral calcium.

### Resources

- Plasticine in a variety of “poop” shades – light brown, dark brown, black, white
- Dried grass seeds/stems (OPTIONAL)
- Dried edible berry seeds or fragments of nut shell (OPTIONAL)
- Small boiled, well cleaned bones e.g. chicken (OPTIONAL)

### Health and Safety

Plasticine can occasionally cause allergies with some children. Some of the additional items (seeds, berries, nuts, bones, stems etc) may be allergens for some individuals. If using bones, ensure any bone fragments are well-cleaned and smooth, without jagged edges or chances to break. Hands should be washed after activity.

### **Activity Instructions**

1. Get the group to design their best poop. We have some guides to help you!
  - a. Carnivore poo tends to be darker and have bone fragments
  - b. herbivore poo is light and might have seeds or grass inside
  - c. bone eaters like hyenas and dogs can have quite white poo
2. Once you've made your fresh poo, challenge the others in the group to identify it.
  - a. Which ones would make the best coprolite?
  - b. What would you be able to tell from the fossils if you found them?

**Further 'poo' related activities can be found here: [Pleistocene Poo Part 2](#)**

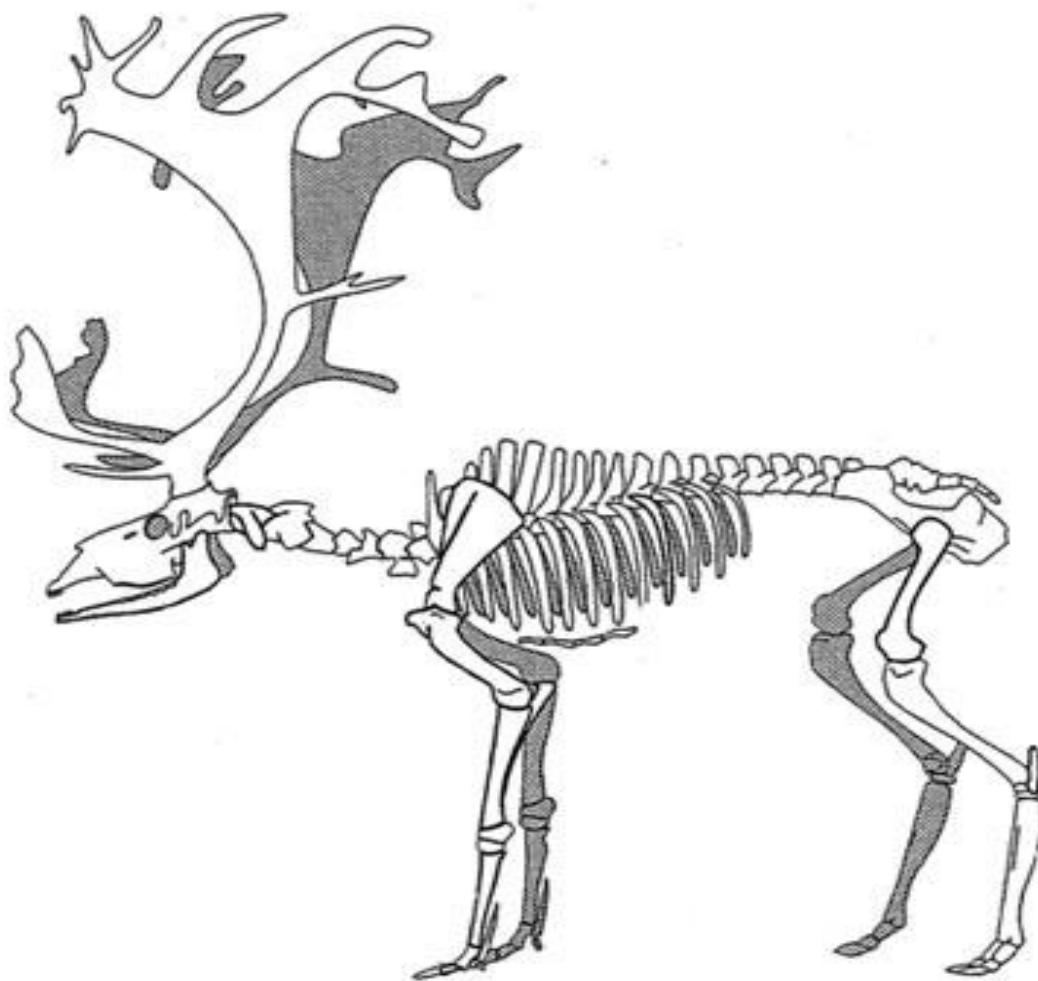


## Big Bone Jigsaw

### Background

It's incredibly rare for archaeologists or palaeontologists to find whole skeletons, especially if they are still "articulated" (in the right position). Experts at identifying bone can work out what bone it is, and what animal it was from, from even very small fragments.

Animal bones (zooarchaeology) can give us a lot of clues about human lifestyles. For example, they might tell us what the climate or environment was like – animals like the woolly mammoth were adapted for the cold, so we know that humans living at the same time must have had to find ways of surviving that environment as well. Hunted animals often end up with cutmarks, or sometimes even weapons stuck in the bone, so this tells us about human diets and about their hunting techniques and butchery methods. Later, archaeologists might be able to see which animals were domesticated and which were not, whether some people in the past had different diets from others, or even how animals were used by people for things like traction or as pets.





## Resources

- Big Bone Jigsaw (please email [yac@yac-uk.org](mailto:yac@yac-uk.org) for a copy)
- A3 Paper
- Printer
- Scissors
- Floor space
- Laminator (if reusing or using outdoors)

## Health and Safety

Be careful not to slip on the jigsaw as you're building it on the floor.

## Activity Instructions

Can you construct and identify a large animal skeleton from the different pieces?

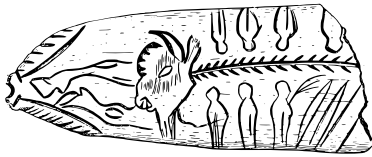
1. See if the group can piece things together – you will need a few metres square of floor space to construct your picture.
2. When it's finished, try to figure out what kind of animal it is.
3. If ancient humans had hunted these creatures, which parts of the body do you think they would use, and what for? How would this show up on the bones?



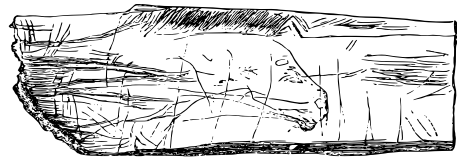
# Soap Carving and Printing

## Background

Cave paintings are the most famous kind of Ice Age art, but Ice Age people used a whole variety of techniques just like modern artists do. Sculptures made of clay, ivory, antler, stone and bone have been found from several sites, as well as fingerpainting, drawing and engraving/carving. The oldest art in Britain falls into that last category – the carvings at Creswell Crags are around 13,000 years old.



*An Ice Age engraving of a butchered bison from Raymonden in France.*



*An Ice Age engraving of a horse from Robin Hood Cave at Creswell Crags. The engraving was coloured with traces of red ochre.*

## Resources

- Bars of soap
- Plastic clay shaping tools/wooden kebab skewers
- Pencils
- Poster paint in earthen colours
- Paper

## Health and Safety

This activity may not be suitable for people with skin conditions or allergies. Supervise to ensure sharper carving tools do not cause injury. Hands should be washed after activity.

## Activity Instructions

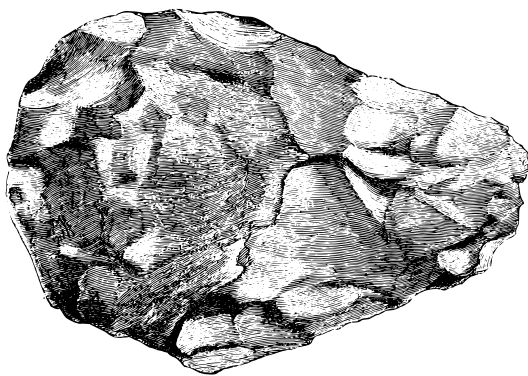
1. Get your group to think about their inspiration for the art. Ice Age animals are a great idea, or perhaps they'd like to make some abstract designs.
2. Sketch out the designs on paper first!
3. Using a pencil, copy the design onto the surface of the soap. It's a good idea to carve very lightly to begin with and only deepen the carving when you're happy!
4. Many Ice Age engravings were also painted with pigments like red ochre. A fun way of experimenting with this idea is to use the soap carvings to do printing. Painting the soap and pressing against paper will give a negative print of the carving you just made!



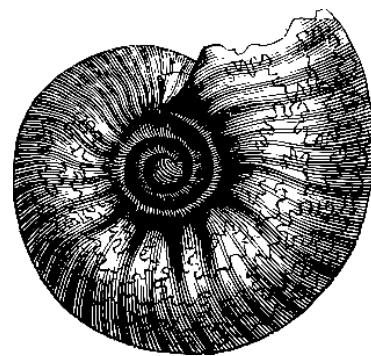
## Archaeologist or Palaeontologist?

### Background

This game explores the differences between archaeologists and palaeontologists. **Archaeologists** are interested in the way humans (and their ancestors) lived. Their evidence might be human bones or artefacts (human made or human altered objects).



**Palaeontologists** are interested in the story of all ancient life. This can be fossils of animals, plants or microscopic life forms like bacteria. They are not interested in things younger than the last Ice Age (less than 10 thousand years old).



Some discoveries might interest both archaeologists and palaeontologists. For example, a 40-thousand-year-old woolly mammoth skeleton would be interesting to an archaeologist if it could have been hunted by people and it would be interesting to a palaeontologist because it is an extinct animal.

### Resources

- [Archaeologist or Palaeontologist? - pdf](#)
- Printer
- Paper
- Laminator (if reusing)

### Health and Safety

If doing the debate activity, establish some “ground rules” first – debate points must always be about the object and not about the person making the point.



### Activity Instructions

1. Print off the “Archaeologist or Palaeontologist?” sheets and cut off the information labels.
2. Shuffle the cards so they are out of order.
3. You can play the game “Higher or Lower” with the group, where they hold up two cards, try to identify the object and decide which one is older and which one is younger (or if they’re about the same). If identification might be too tricky for the group, leave the name tags on when you cut out the sheets.
4. Lay them down in the order that is decided by the game – this gives you a basic chronology.
5. Now, get the group to vote on which ones are studied by archaeologists, which ones are studied by palaeontologists, and which might be interesting for both.
6. The answers are on the original file – how close did you get?

**Optional extension:** get the group to play “devil’s advocate”.

1. Try to forget everything you know about what the objects are and what time they are from, pretending it is the first time anyone has ever found one.
2. Split the group into two teams: one team of archaeologists, one team of palaeontologists.
3. Each team takes it in turn to argue that the object should go to their museum for study.
4. The leader should decide who gives the most convincing argument. See which team claims more for their side!

### Additional Activities

You can also find additional activities on the Creswell Crags ‘Education’ page:

- **How many mammoths?**
- **Ice Age creative writing**
- **What in the world is a Bâton Percé?**