

UKS2 Topic: Stone Age to Iron Age Britain

Session 3 Making tools and fire	
NC link	<p>History: Develop a chronologically secure knowledge and understanding of British history. Address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. Understand how our knowledge of the prehistoric past is constructed from a range of sources, and should evaluate the reliability of each of these sources.</p> <p>Science: Plan different types of scientific enquiries to answer questions, report and present findings from enquiries. Investigate reversible and irreversible changes. Talk about how scientific ideas have developed over time.</p>
LOs	<p>Children will:</p> <ul style="list-style-type: none"> Plan and carry out an enquiry into the method of making flint tools using potatoes as a substitute material Plan and carry out an experiment to see whether magnesium helps people light fires
Key vocabulary	Chopper, handaxe, blade, magnesium, Neanderthal,
<p>Resources</p> <ol style="list-style-type: none"> Magnesium experiment guidelines Fundamental fact-sheets – hominin behaviours 1 Image bank – making stone tools Knapping with potatoes – some tips <p>What you'll need Potatoes, rocks, sticks, two fire-bowls, fuel, magnesium, matches</p>	<p>Links</p> <p>https://www.youtube.com/watch?v=nyuzh1uaSf4 Basic flint knapping (how to produce a flint flake)</p> <p>https://www.youtube.com/watch?v=y6QO2DthGPc Advanced flint knapping (how to make an arrowhead)</p> <p>http://www.ancientcraft.co.uk/Tools/palaeolithic_tools.html Range of Palaeolithic tools explained</p> <p>http://www.sciencemag.org/news/2016/02/neandertals-may-have-used-chemistry-start-fires Article about Neanderthal use of manganese dioxide</p>
Prep	Set up two fire-bowls with fuel outside.
Mini-wow starter	Take children outside to do an experiment. Tell them that at a Neanderthal site archaeologists found a block of magnesium that had been worn down. They thought that maybe the Neanderthals had used it to help make fire. Can children think of a way to test whether this was the case? Show them the equipment you have (two fire-bowls, matches, powdered magnesium, wood). Prompt them to come up with a fair test (using resource 1 if necessary). With another adult, try to light the two fire-bowls at the same time and see which one lights first and e.g. has the biggest flames. Hopefully, you will find it does help start a fire – the archaeologists found it reduced the temperature needed to start the fire from 350°C to 250°C.
Main activity	Take children back inside and praise them for their experiment. Tell them they are going to make some tools the Palaeolithic way. Show them the image bank of stone tools in resource 3 and, if you can, the video of basic flint knapping in the links. Explain that using flint is a bit dangerous, especially when first starting, so they are going to be using potatoes. Ask children to make some predictions over whether this will work e.g. the potato will go mushy instead of flaking; it will be difficult to control how the potato breaks, you won't have to hit it as hard as you have to hit flint to flake it etc... Give out the prepared potatoes and ask children to knap them all the way round the edge (warn them to try not to hit their fingers). Demonstrate the tips in resource 4.
Extension	Challenge more able or older children to try to make a specific handaxe shape as shown on the guide to the range of Palaeolithic tools in the internet links.
Assessment	Ask children to report back whether knapping the potato was the same as they predicted. How difficult do children think it would be to make the same tool from flint? What does it make them think about these ancient humans who knapped these tools?