Exploring Archaeology in Peacehaven Exploring Archaeology Learning Pack

This resource is designed to explore the stories uncovered during archaeological excavations in the area around the Big Park. The geology and topography here is partly what made it so appealing to prehistoric people. Early Neolithic people here seemed to favour the higher land overlooking the valley and settlement and farming continued on the uplands and shallower slopes until the Roman period. Archaeological investigations carried out by Archaeology South East as part of the development of the Brighton and Hove Wastewater treatment works provided evidence that this area was likely to have been cleared of trees by the people living here to create a grassland environment ideal for farming though there were wooded areas nearby.

The Archaeological investigations in this area revealed incredible evidence of the crops and food grown and eaten by some of Britain's first farmers. During this time, people living here were growing or gathering, wheat, barley, broad beans, peas, hazelnuts and cherries.

Contents

- 1. What is Archaeology?
- 2. What was found here?
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- 4. What happens to archaeological artefacts after they've been excavated?
- 5. Activities

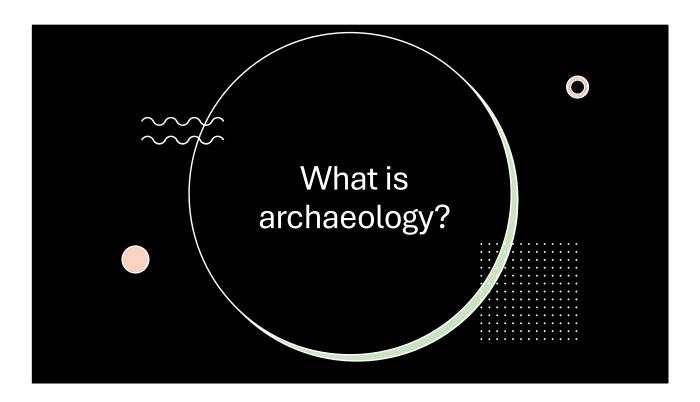












Archaeology is the study of the past through the evidence we find (mostly) in the ground. Not all archaeology is discovered underneath our feet – buildings archaeology for example is the study of buildings to help us uncover stories about the people living here throughout history.

Archaeologists excavate areas in the ground to look at changes in the soil, features (things that can't be moved including evidence of buildings, pits, burials and ditches or field boundaries) and artefacts or objects.



Although this sounds like a ridiculous thing to say, a lot of the artefacts we find are exactly that – other people's rubbish! Either objects that have been lost and forgotten or broken pots, tiles, bits of metalwork or discarded flint tools that have been thrown away and then dug up 100s or 1000s of years later.

That doesn't mean that we can't learn from these objects, we can find out what materials people were using and how they were using them and if objects were made locally or perhaps imported or traded. We can learn what technologies were available at the time and where people were living or working just by looking at the evidence in the ground. By piecing together all of this evidence, it can help to give us an idea of what life was really like for people living here.

We can also look at environmental data – this could include soil samples that contain organic material like charcoal or pollen remains. These are invaluable in



Sometimes archaeologists can learn enough about a location without having to excavate. At other times, they dig a trench. Mechanical diggers take away the top layer of soil first. Then archaeologists use tools to carefully remove soil by hand. A camera comes in handy to record the size and location of finds. Sieves are used to check the soil for any small remains they might have missed.



Sometimes, archaeologists are called in to excavate or assess an area where there will be building work happening – this is called commercial archaeology. They can investigate a site before the ground is disturbed to uncover the story of the area.

Other times, archaeologists can work with local communities to explore the archaeology of an area. In these instances, we can look at historic maps of the area (there are some examples of Peacehaven on the next slides but you can also access them here <u>Side by side georeferenced maps viewer - Map images - National Library of Scotland</u>) Maps can give us information about what the landscape or area used to look like and sometimes even have burial mounds or historic buildings marked on them that are no longer visible or recorded on maps today.

Aerial photographs are also really useful but are usually only available from 1940s onwards. Documents can give us information about who owned the land and what is was used for. Some of these documents could be hundreds of years old or they could be newspaper reports describing something that happened in the area. These documents can be found online or in county records offices.

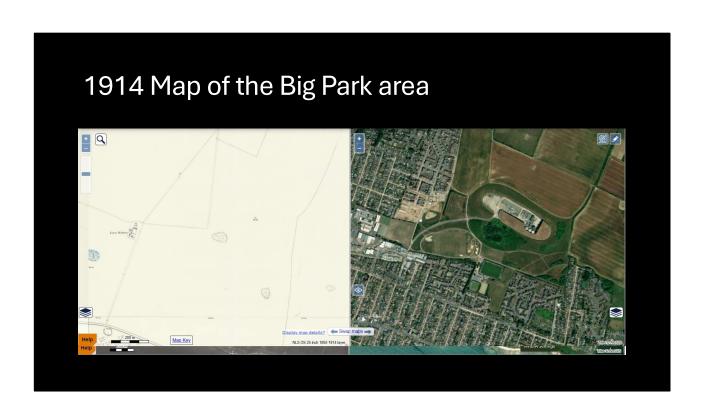
Museums are a great place to look for objects that have already been found in the area and this sometimes gives us an idea of what we might expect to find. Most archaeological finds are recorded on the Historic Environment Record which you can search here HeritageGateway - Home * or the Portable Antiquities Scheme Advanced search the database

Sometimes artefacts are found when no one is looking for them! Archaeology has been uncovered in people's gardens, in allotments or on farm land when the soil is ploughed and these artefacts can help to fill in the gaps of our knowledge about an area.

If possible, once we have an area in mind, we might then carry out a geophysical survey to try and find out a bit more about what's under the ground.



Resistivity surveys are used to find the buried remains of buildings. A small electric current is injected into the ground. Where the electricity passes through easily, there is low resistance. This indicates wet conditions. There might be a ditch filled with very wet soil. Where the electricity struggles to pass through, there is high resistance. This shows there is little or no water and is likely to be a more solid feature like a buried wall. Sometimes archaeologists cannot see shapes in the landscape at ground level so they use aerial photographs to spot features to investigate. They may also use metal detectors as a way to find out if there are metal objects like coins below the ground

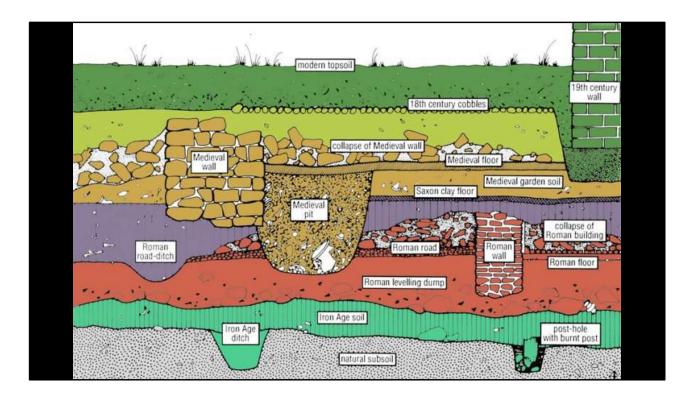








It's all about layers – when we find something in the ground, we look at the changes in the soil (stratigraphy) to assess the changes through time. It's not always very clear and sometimes the layers can be mixed up but if we find an artefact that we already know the date of (a piece of roman pottery for example) it can give us some clues about how the soil has built up over time. Ideally it would be as simple as saying that something found 50cm underneath the ground is 100 years old and something found further down around 100cm deep would be 500 years old – essentially, the further down is it, the older is would be. Sometimes this is the case but it's often a bit trickier – the next slide explores this further.



This is a great example of stratigraphy that might be found in Britain. Stratigraphy is the order and connection between archaeological layers, deposits and features in the ground

We can see the clear layers from different times in history starting with the earliest evidence of an Iron Age ditch cutting into the natural subsoil. In areas of Peacehaven this might be clay or chalk. Above the Iron Age layer, we can see evidence of Roman occupation with a floor, remains of a wall and road but in that same layer, we can see a much later medieval pit cutting through the Roman layer so although it would be a lot easier to be able to say everything in this layer is definitely Roman – we need to watch out for later features that might have disturbed the archaeology there.

Stratigraphy diagram showing a section through an archaeological site (© Canterbury Archaeological Trust)

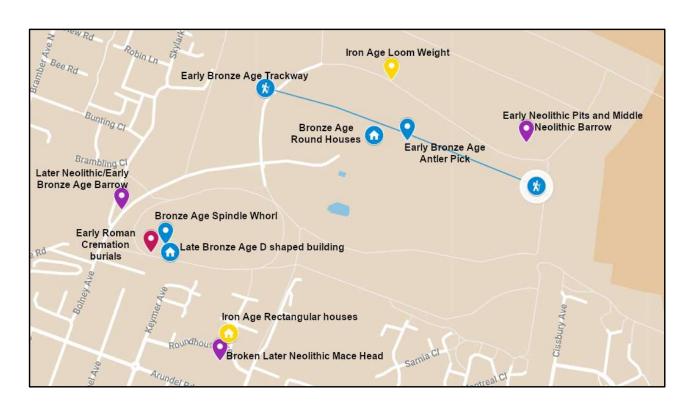


The geology and topography here is partly what made it so appealing to prehistoric people. Early Neolithic people here seemed to favour the higher land overlooking the valley and settlement and farming continued on the uplands and shallower slopes until the Roman period. Archaeological investigations carried out by Archaeology South East provided evidence that this area was likely to have been cleared of trees by the people living here to create a grassland environment ideal for farming though there were wooded areas nearby.

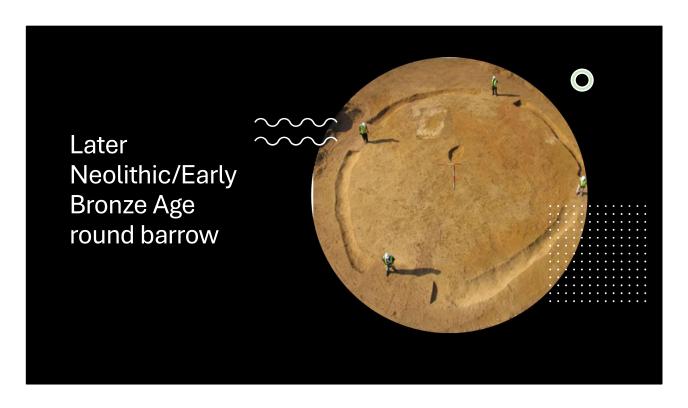
The Archaeological investigations in this area revealed incredible evidence of the crops and food grown and eaten by some of Britain's first farmers. During this time, people living here were growing or gathering, wheat, barley, broad beans, peas, hazelnuts and cherries.

By the Middle Bronze Age, around 3000 years ago, people living here had expanded their farming practices forming trackways and animal sorting complexes within much bigger field systems. Although there weren't many animal bones found dating to the Bronze Age, it's likely that they were keeping sheep here. Around 1000 years later, they created new enclosures and trackways

capable of handling larger herds and decreased the amount of crops growing though wheat and barley were still available.



This map marks most of the main discoveries that we'll find out a bit more about in the next slides. You can access this as a google map here https://www.google.com/maps/d/u/1/edit?mid=1dA-Tsff8OwkY2pfJR3TGKFp26UJ5x2A&usp=sharing and you could have a walk around the Big Park to find each location.



Some of the earliest human activity in this area of Peacehaven was identified through the discovery of 26 Early Neolithic pits in the east of the Big Park. We know that people in the Mesolithic period, around 10,000 years ago, were moving around this landscape but these pits, dug around 5500 years ago, suggests people started settling here for longer periods of time. The amount of Early Neolithic pits found here is unusually high for this part of the country and so far, it's the largest pit site in the South East.

Throughout the Early Neolithic period these pits seem to have been dug for the purpose of deliberately depositing a mixture of domestic objects and burnt material. We don't know why these pits were filled with a large amount of Early Neolithic pottery, struck flint and burnt material but it looks like they were filled in relatively quickly but not all at once. There was a reasonable amount of serrated flint flakes found in the pits which would suggest an emphasis on plant working – particularly nettles into fibre for cordage so it's very likely that Early Neolithic people would have settled here in the Summer when nettles would be

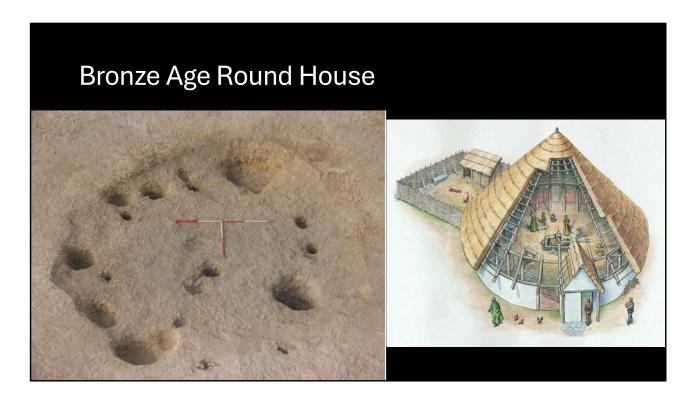
abundant.

One idea is that pits like these were used to mark significant occasions or events as the local population settled here over a number of years. At the end of the season of occupation, they might have added a new layer of broken pottery, quern stones and flint flakes before moving elsewhere to a different farming environment or perhaps one with different resources.

These pits were likely visible in the landscape for thousands of years as they appear to act as a focus in the development of the Later Neolithic and Bronze Age monumental landscape. A round barrow was built in the Middle – Later Neolithic period and pieces of pottery of the same date were found buried in a pit in the centre. The location of this barrow seems to have been chosen with care to avoid the earlier pits although 100s of years may have separated them.

Other barrows (mounds) were found on the same alignment with the Neolithic Pits, usually we'd think of them as funerary monuments containing burials but with some of the mounds here, there wasn't any evidence of human burials within them so either any bone didn't survive or they were used as markers or cenotaphs to remember a person if they're buried elsewhere. One of the earlier barrows, dating to the Later Neolithic/Early Bronze Age was located at the other end of the park, again with a pit in the centre. There weren't any artefacts or human remains found in the pit but a selection of flint including a blade and an awl were found in the ditch around its edge.

As these monuments and features in the landscape are all in a line, their locations could have marked specific areas of focus for the performance of ceremonies with people moving through the landscape.



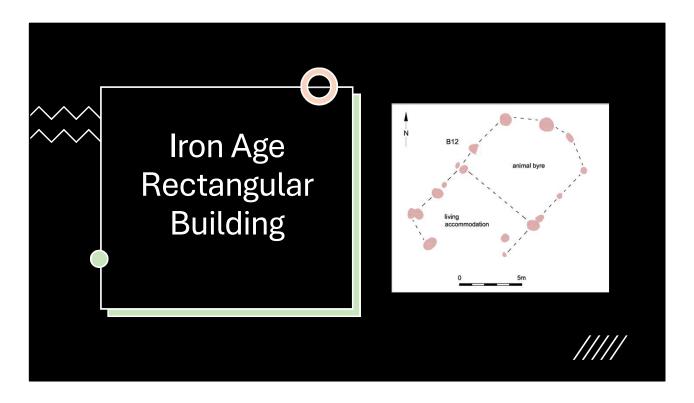
The earliest archaeological evidence for buildings in this area date to the Middle Bronze Age where at least five roundhouses were built here. A small settlement with three of these buildings was found where the Wastewater Treatment Centre is now and were built in a style like others found in Sussex. The best preserved of these buildings measured 4.5m in diameter and was surrounded by seven storage pits. One of these pits was then reused for the internment of a human cremation, perhaps as closing rite when the main resident of the building died. A layer of ash and charcoal found in the area of the roundhouse suggests that it was eventually destroyed by fire. The picture on the left here is what remains of this building. We can see some smaller holes around the outside, these would have held posts to form the walls and roof supports in the building. The two smaller holes at the bottom of this picture are where the entrance to the house would have been. The bigger holes are storage pits.

Another roundhouse contained similar features with one of the storage pits being reused for a human cremation burial but also provided evidence of two Neolithic flint axe heads deliberately buried in pits around the building while the

roundhouse was in use.

There was only one building found dating to the Late Bronze Age, built in a D shape which might have been used for pottery production. A large amount of calcined flint was found near to a Late Bronze Age D shaped building. At this time, firecracked flint was used as temper to make pottery – the flint was heated then smashed into smaller pieces and mixed in with the clay before the pottery was shaped. The addition of flint in the clay ensured that the pots were evenly fired to create solid pots. The pottery firing process wasn't effective every time and interestingly, a number of misfired pots (wasters) were found here too. The evidence of flint and pottery wasters here might suggest that the D shaped building was used as a workshop for producing pottery.

Evidence has been found here to show that people were producing their own textiles in this area during the late Bronze age and Middle Iron Age. A decorated spindle whorl was uncovered near a rubbish pit near the D shaped Late Bronze Age building.



Where the houses at the edge of the Big Park stand now, (around Roundhouse Crescent) was the site of six Middle Iron Age buildings. Although most Iron Age buildings are round, the ones found here were rectangular and ranging in size from around 7 metres to 14 metres in length. They appear to be Byre houses used for accommodation for both livestock and humans with a divide in the middle to separate two areas. Where buildings like this have been found elsewhere, they have been interpreted as seasonal dwellings used for shorter periods of time during a farming season rather than permanent homes.

This style of building is often found in Europe but there have been a number of Early Iron Age rectangular buildings found elsewhere in the South Downs so this might suggest a local style of building construction. The Iron Age settlement here included distinct areas for industry, crafts, refuse disposal, accommodation, food storage and livestock.

For a short period of time during the Late Iron Age, human occupation of this area seems to have decreased or stopped altogether until Roman farmers start

using some of the Iron Age enclosures for holding animals. There wasn't enough evidence from the Roman period to suggest any buildings were in this area but Roman Farmsteads have been found all along the South Downs and Roman cremation burials were found in the area south of the skatepark. Three Roman pots containing cremated remains were found inserted into a large pit but as the pots are dated to around 50AD and the pit is dated to the early 2nd century, its likely that the burial of the cremation pots took place 50 years after the cremation. Its also probable that the human remains in the pots are from the same male individual with different pots being used to collect different areas from the burnt pyre. Much like the Bronze Age cremations in the Roundhouses, these Roman cremations might have signalled the closing down and abandonment of the area.

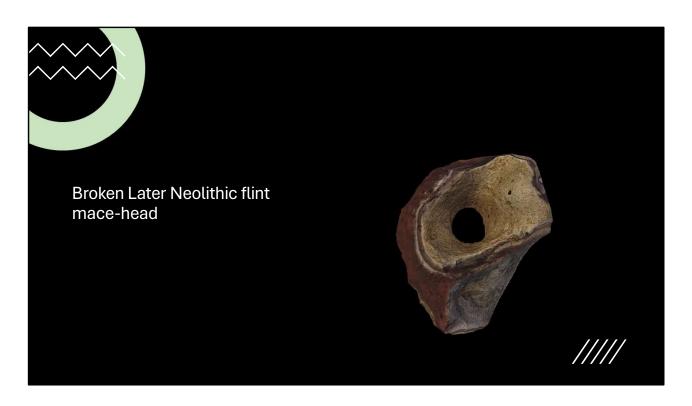


Artefacts like these can give us an idea of what kind of clothing people wore and how they made them. We can also learn about what food people ate, where they lived, what tools they used and what their jobs or daily activities might have been. When we find objects buried with people (in graves or burial mounds) we can start to work out what their role in their society might have been (although we should also remember that it would likely be their friends or family making choices about what they were buried with).



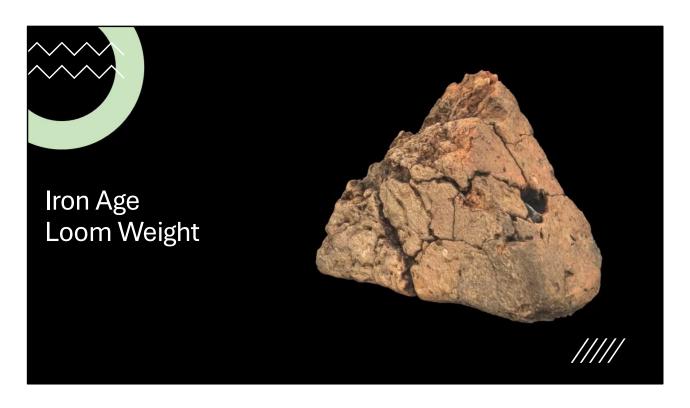
This antler pick was discovered during excavations in what is now the Big Park in Peacehaven. It appears to have been deliberately placed in a rectangular pit alongside a trackway to mark the creation of the (at least) 500m long route used to move people and animals to grazing areas in the lowlands to the uplands.

It shows considerable wear and small cut marks are visible in the middle – similar marks were found on picks found at Grimes Graves and may have been made whilst extracting flint from the chalk.



Later Neolithic flint Mace Head

This mace head was found during excavations in Peacehaven in what is now The Big Park. It was made from a beach pebble, shaping the mace-head around the naturally occurring hole. The haft (handle) would have fit through this hole and was probably positioned towards the butt of the mace-head. After shaping and before hafting, this mace-head was burnt at a low temperature, probably for a long time, to create the deep red surface on the grey flint tool.



Iron Age Loom Weight

This triangular loom weight would have been used to hold tension in the vertical (warp) threads when weaving cloth. It is probably made from clay found locally and shaped to add three holes (one on each corner). These holes were used to tie the threads to and the weights would likely have been hung with the point at the top on one row and a second row of weights with the point facing the floor.



Artefacts used in the salt production process have been found here and as we're a reasonable distance from the sea, it's likely that only the later stages of the process were carried out. This would have involved further evaporation of sea water from the coast or the estuary of the Ouse to make salt cakes to be used by the community living here for cooking and preservation of food.

This is a Late Bronze Age ceramic pedestal that would have been used to support a larger ceramic pot that contained salt water over a hearth or fire to speed up evaporation in the saltworking process.



Late Bronze Age decorated spindle whorl

This spindle whorl was uncovered near a rubbish pit near the D shaped Late Bronze Age building. When this spindle whorl was made in Late Bronze Age Peacehaven, the person making it created the decoration around the edges by pressing their fingernails into the wet clay. The spindle whorl was used as a weight to spin wool into thread – the weight would ensure the spindle kept spinning.



Although we can gather a lot of evidence from archaeological investigations, we have to remember there will be things missing. Unless the conditions in the soil are perfect for preserving artefacts - usually waterlogged or anaerobic (little to no oxygen in the soil) it's less likely that any organic materials would survive being buried in the ground for a long period of time. You can run your own experiment about this – try burying a piece of apple and something inorganic and see how long it takes for the apple to disintegrate and rot away.

So just because we don't always find wooden objects or the wooden parts of buildings, doesn't mean that they weren't ever there – just that they haven't survived in the ground.



Once the features in the ground have been investigated and the artefacts have been excavated, they are then cleaned and analysed by archaeologists. This can involve drawing and photographing the object to get a really good record of the object and then researching it to work out what it actually tells us.

This information is gathered with all of the other evidence and a report is written to tell the story of that site. After that, the objects are often deposited in museums and can be used for further research or put on display in exhibitions.

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5.Activities

1. I am an Archaeologist

Use the knowledge you've learned about the archaeology uncovered in Peacehaven and the photographs and maps supplied to write your own archaeological report including drawings and plans. Template included at the end.

2. Create your own museum

Using the photographs or digital models of the archaeological artefacts, write labels for each of these objects. Think about what the object is, what it was used for, what it is made from, describe any interesting decoration and how old it is. You could also think about who made or used this object, what was their life like?

3. Creative Writing activities

- a. Imagine you are the archaeologist who found one of these objects, think about the different layers of soil you had to dig through to discover it, was it hot or cold that day? How did it feel when you found it? Was it the best thing that happened that day?
- b. Use one of the objects as a starting point to travel back in time to when it was used and made. Who was using this object and what were they doing? Where are they? Is there anyone else nearby?
- c. One of the biggest mysteries from this site is why the Neolithic people dug so many pits and then filled them in with domestic rubbish. Use this as a starting point for writing a story and perhaps you can solve the mystery! First, plan out your story who are the characters, what do they look like and what are their names? Where might they have been before coming to Peacehaven? What was digging the pits like? Remember they're likely using antler picks and shovels made from bone. Next think about their day what else were they doing? Were they on their own or did they work with other people when digging the pits? Do they think its important to dig the pits or would they rather be doing something else? Where are they getting the rubbish from to put in the pits does it all belong to one person? What happened next? It's very likely that these pits were still visible for a long time so did the grass or plants grow back









Exploring Archaeology in Peacehaven

differently when they were filled in?

d. For a really challenging activity, you could tell the story of the landscape. The chalk and clay beneath our feet has witnessed thousands of years of human settlement in Peacehaven. Try describing the changes in the landscape in 10 lines or sentences. You could start with the Neolithic people arriving over 5000 years ago and end with the end of the Iron Age settlement or carry on to present day!

4. Bronze Age Pottery making

During the Bronze Age, this area was used to make pottery for the people living here (and perhaps to trade with other communities). Use air dry clay (a 12.5kg bag can stretch to pots for 2 classes) All pottery during the Bronze Age was made and used in the household or within a community. It was handmade and often formed using coil construction (roll the clay into a long sausage shape and coil it round to create the shape of a pot) The pots were fired in a domestic hearth or bonfire at temperatures of 600 – 700 degrees centigrade. Experiment with using fingertips, cocktail sticks and string to make decoration around the outside.

5. Salt working experiment

Artefacts used in the salt production process have been found here and as we're a reasonable distance from the sea, it's likely that only the later stages of the process were carried out. This would have involved further evaporation of sea water from the coast or the estuary of the Ouse to make salt cakes to be used by the community living here for cooking and preservation of food.

You can make your own salt water and see what the best containers and conditions are for evaporation. It's also interesting to see how much water you would need to collect to get a small amount of salt!









Exploring Archaeology in Peacehaven

Acknowledgements

This project is part of the Big Dig project with the Changing Chalk Partnership.

Changing Chalk is a multi-partner project connecting people, nature and heritage across the eastern South Downs. Led by the National Trust, Changing Chalk is supported by The National Lottery Heritage Fund, thanks to National Lottery players









Archaeological Report

Project Title				

Design your title page here when you've finished the rest of the report – it might give you some ideas about what to include.

Name

Introduction

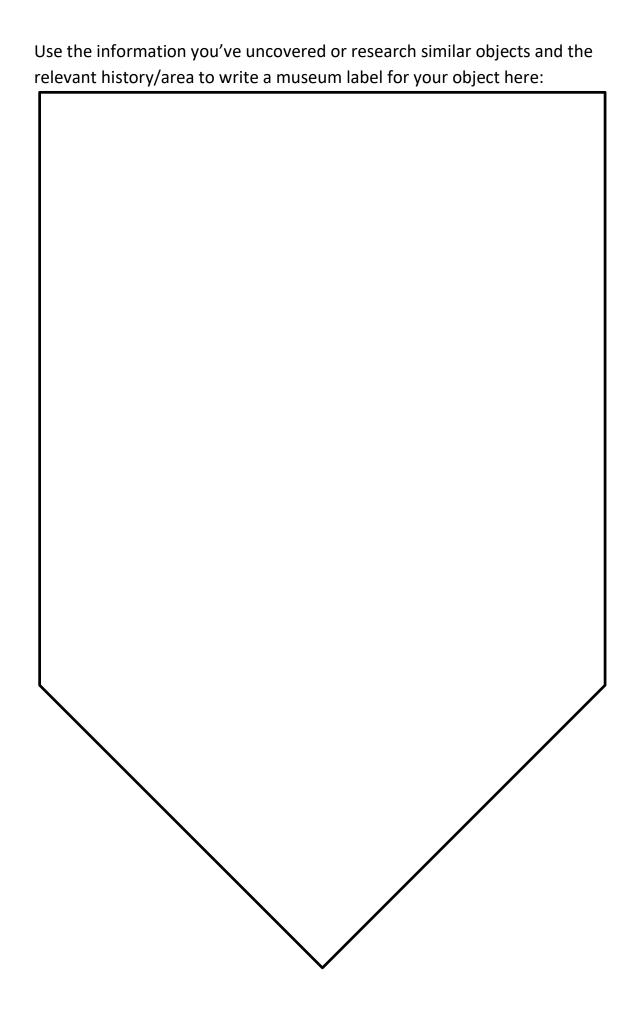
introduction
What is archaeology?
What does an archaeologist need to do their job?
Which methods could we use to find out where to dig?
What can we find out by looking at archaeological objects?

Archaeological Building Detective

This is the evidence left behind from a Bronze Age building. What can we tell from the features here? Try and work out what we're missing (what hasn't survived in the ground) and design your own building.



Use one of the images of the objects and the grid below to draw an archaeological drawing – try and get as much detail in your drawing as possible.



Object photographs

Late Bronze Age decorated spindle whorl

This spindle whorl was uncovered near a rubbish pit near the D shaped Late Bronze Age building. When this spindle whorl was made in Late Bronze Age Peacehaven, the person making it created the decoration around the edges by pressing their fingernails into the wet clay. The spindle whorl was used as a weight to spin wool into thread – the weight would ensure the spindle kept spinning.



Late Neolithic Broken Mace Head

This mace head was found during excavations in Peacehaven in The Big Park in an Iron Age midden (rubbish dump) near some rectangular Iron Age buildings. It was made from a beach pebble, shaping the mace-head around the naturally occurring hole. The haft (handle) would have fit through this hole and was probably positioned towards the butt of the macehead. After shaping and before hafting, this mace-head was burnt at a low temperature, probably for a long time, to create the deep red surface on the grey flint tool.



Iron Age Loom Weight

This triangular loom weight would have been used to hold tension in the vertical (warp) threads when weaving cloth. It is probably made from clay found locally and shaped to add three holes (one on each corner). These holes were used to tie the threads to and the weights would likely have been hung with the point at the top on one row and a second row of weights with the point facing the floor. It was found in a ditch



Early Bronze Age Antler Pick

This pick was found in a rectangular pit underneath a 500 metre long trackway across the area of the Big Park today. The route was used to move people and animals from grazing areas in the lowlands to the uplands. The antler pick shows considerable wear and small cut marks are visible in the middle – similar marks were found on picks found at Grimes Graves and may have been made whilst extracting flint from the chalk. This pick was definitely used and one idea is that it was used to dig the pit and probably deliberately placed in the bottom alongside a partial cattle carcass to mark the event of building the trackway.



Early Neolithic leaf arrowhead with broken base

Early Neolithic people had already started farming in this landscape but they would also still have used bows and arrows to hunt for meat. This arrowhead was made from flint found locally and was found in an Early Neolithic pit that was dug then filled up with pottery, flint, quern stones and burnt material, probably when they moved to a different location at the end of the summer season.



Edge of Neolithic polished flint axe head

This Neolithic axe head was deliberately placed in a Bronze Age pit around the edge of a Bronze Age building. It was one of two axes found in this building and was likely put there when the building was first built, perhaps as an offering or a symbolic way to protect the house. Polished axes like this one were less likely to chip or break than unpolished ones but it took a long time to polish a whole axe – probably a couple of days at least.



Early Neolithic serrated flake

This flint flake has a serrated edge (a bit like a saw) on the bottom which suggests is was used to cut and process plant fibres like nettles to make cord and rope. It was found in an Early Neolithic pit in the North East of the Big Park.



Late Bronze Age ceramic pedestal

Artefacts used in the salt production process have been found here and as we're a reasonable distance from the sea, it's likely that only the later stages of the process were carried out. This would have involved further evaporation of sea water from the coast or the estuary of the Ouse to make salt cakes to be used by the community living here for cooking and preservation of food.

This is a Late Bronze Age ceramic pedestal that would have been used to support a larger ceramic pot that contained salt water over a hearth or fire to speed up evaporation in the saltworking process.

