

# Archaeology

at Mill Waters heritage site

**TN**  
TEACHER'S NOTES

## TITLE SLIDE

In this lesson you're going to find out what archaeologists do – and why they are like detectives and time travellers.

You're also going to find out about some amazing cities hidden under the ground that archaeologists have discovered. You will also learn how to research your local area to see what archaeological records exist and what they can tell you about the people who lived there many years ago.



## SLIDE 2 WHAT IS THIS PERSON DOING?

The woman is cleaning items she has discovered during an archaeological dig.

She is carefully removing soil and debris from the items and is sorting them out on a tray.

Archaeologists are scientists who collect artefacts (objects made by people), that are usually buried deep under the ground, and examine them to see what they can tell us about the people that lived there many years ago. They are different from palaeontologists, who study fossils, and historians, who mostly study written historical records.

## SLIDE 3 ARCHAEOLOGISTS ARE LIKE DETECTIVES

Archaeologists are like detectives. By looking at artefacts, they try to figure out how long ago people lived there, how they governed themselves, what art they created, their religious beliefs, the technology or other inventions they used and what their daily life was like. Clues archaeologists use to answer these and other questions about past civilisations can sometimes be found in the artefacts they dig up.

## SLIDE 4 ARCHAEOLOGISTS ARE ALSO LIKE TIME TRAVELLERS

Archaeologists are also like time travellers. By looking at the remains left by people living in a place many years ago they can find out how people used to live. The deeper beneath the ground they dig, the further back in history they can go.

Watch this short clip on BBC 2 about what archaeologists do (3.09mins):

[www.bbc.co.uk/programmes/p0114m1k](http://www.bbc.co.uk/programmes/p0114m1k)

Archaeologists do what they do because they are driven by the thrill of discovery.

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## SLIDE 5

### WHY DO ARCHAEOLOGY?

There are lots of reasons for doing an archaeological survey, namely:

- An old artefact has been found in that area and it may be worth investigating to see if there are more nearby.
- A book about the local area in the past – or written in the past – mentions an old settlement or building which once existed but which is no longer visible.
- There might be a record of surveys done in the past and now that there is better technology available it might be worth doing another survey in case anything was missed the first time around. This is often the case with surveys done before 1950, as the record keeping was not as good as it is today. Early excavators were often only interested in searching for fine pottery, jewellery and statues – they were called rescue archaeologists. They often left behind lots of evidence that archaeologists today value.
- Stories about the past are shared orally (by word of mouth), perhaps passed down from one generation to the next and perhaps feature a building or place which served a particular function but which can't be seen today.
- There may be local knowledge of where there may be something of interest to archaeologists. They may not have reported it because of taking it as part of their world, or because of fearing intrusions on their land or community.
- There isn't a full picture about a whole region; particular sites may have been explored but further digs might reveal how sites connect or how settlements have changed over time.
- Archaeologists can help test hypothesis (what historians have guessed about a population in an area years ago).

## SLIDE 6

### THE JORVIK VIKING CENTRE

Jorvik Viking Centre is located in Coppergate (a street where there were a number of archaeological digs) in York. It is home to some of the most astounding discoveries in modern archaeology.

The museum hosts some of the most rare and beautiful artefacts from the Viking age ranging from earrings to socks, and frying pans to padlocks.

The Vikings came to England from Scandinavia (the countries of Denmark, Norway and Sweden). They lived in England from around AD 800 to 1050. This period is known as the Viking Age.

Visitors to the Museum can travel around 10th century York, experiencing what it was like to live in the city. You can see, hear and smell what York was like during the Viking Age, some 1000 years ago.

You can scroll through a short collection of artefacts displayed at the Jorvik Museum here: [www.jorvikvikingcentre.co.uk/about/jorvik-artefact-gallery/](http://www.jorvikvikingcentre.co.uk/about/jorvik-artefact-gallery/)

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## SLIDE 7

### ITALY'S LOST CITY OF POMPEII

Archaeologists discovered Pompeii in 1748, and the whole city was finally dug out of the thick layer of ash and soil in 1997, nearly 2,000 years later.

In AD 79 Pompeii was a beautiful city. Its grand public buildings, the Temple and the Forum were built of carved stone.

Its shops and houses were built of concrete. It had paved streets with pavements, running water and gardens.

The city even had its own *Amphitheatre* where the citizens of Pompeii would go, in the afternoons and evenings, to watch plays about Greek and Roman Gods and about famous Greeks and Romans.

Archaeologists also discovered a surprise – the imprints of bodies in the volcanic ash. These were the citizens of Pompeii who had been buried by the burning hot ash in AD 79. The archaeologists made plaster casts of the body imprints like this one on the right of the slide.

Though the eruption of Mount Vesuvius in AD 79 was a tragedy for the citizens of Pompeii, because the city and its people were kept so well by the volcanic ash, archaeologists have used it to help us understand a lot more about how Roman people lived over 2,000 years ago.

## SLIDE 8

### HOW DO ARCHAEOLOGISTS COLLECT EVIDENCE?

There are many ways that archaeologists collect evidence about the past as we can see in this slide. They include:

- **Archaeological digs** – an archaeological excavation, also known as a dig, is when an area of land is dug up and any artefacts or indeed remains recorded. A dig may be planned, rescue or accidental. A dig can take a few weeks or a number of years depending on the size of the area being excavated. Excavation is the last technique archaeologists use because it is a destructive process. Although they retrieve useful information when they dig, they also destroy things, so it's important they find out as much as possible from other techniques first.
- **An archaeological field walk** – this usually takes place on a farmer's field and involves a team of people examining areas marked into squares with pegs. Each participant walks up and down inside their square, checking the ground surface for any small finds. The position of finds is then recorded to make a 'finds map' of the area. This gives a good indication of where and what type of past activities have been occurring.
- **Geophysical surveys** – enable archaeologists to detect whether there might be anything underneath the ground without digging. Surveys often involve radar or magnetic devices and more commonly drones take pictures from above to detect whether any patterns or unusual objects can be detected from the sky.
- **Photographic surveys** – photographic surveys are often required as part of the planning permission to refurbish a historic building (such as former factory or place of worship), so that it can be monitored for deterioration or to provide a record before it is altered from what it formerly looked like. These surveys are accompanied by drawings and written descriptions. These recordings are also carried out to help owners, architects and planners properly understand a building and which parts of it are significant in order to inform and guide any changes that are made.
- **Map regression** – comparing historic and modern maps to see what changes there are to landscape and man-made features over the years. Looking at old maps shows what features map illustrators thought were important at that time and can also be useful for seeing changes in place names and boundaries over the years.

There is a good film here: [www.nottinghamshire.gov.uk/culture-leisure/heritage/archaeology/community-archaeology](http://www.nottinghamshire.gov.uk/culture-leisure/heritage/archaeology/community-archaeology) – narrated by Emily Gillott, the lead archaeologist for Nottinghamshire County Council. It explains why archaeology is important and highlights some of the work of the Nottinghamshire Archaeology team. You may not wish to watch the whole film, but there is a 1.5 minutes long segment from 7 mins in which describes a dig at Mansfield woodhouse which provided information about the old village.

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## SLIDE 9

### HISTORIC ENVIRONMENT RECORDS

The Historic Environment Records are a network of 85 offices across England.

This is a picture of the building in Nottingham where all the records are kept for Nottinghamshire – including Mansfield and surrounding areas. The HER for Nottinghamshire is managed by Nottinghamshire County Council.

The HERs are an important starting point for anyone interested in the archaeology, built heritage, and history of an area. They can provide information on a wide variety of buildings and sites, from finds of prehistoric flint tools to medieval castles and Second World War pillboxes (small concrete forts).

HERs are a primary source of information for planning, development-control work, and land management.

Many of the records are physical documents and you need to visit the HER to look at them and make copies. There is an online database called the Heritage Gateway which can be used to view a sample of HER records for an area. The Heritage Gateway is linked to a map, so you can search the map to see what records there are for a certain place. Some of the records may be kept by other organisations, such as universities.

The Heritage Gateway is managed by Heritage England which is responsible for assessing whether buildings should be protected by law – this is known as ‘Listing’. You can find out if a building is ‘Listed’ by checking the Heritage Gateway. There are other types of Heritage Designation including Scheduled Ancient Monuments (these are nearly always of a more archaeological type), Registered Battlefields and Registered Parks and Gardens.

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## LEARNING ACTIVITIES

1. Use the Teachers Slides as a stimulus for a discussion with pupils. Here are a few prompts:

*Why are archaeologists like detectives?*

### **ANSWER:**

Because they find clues about how people lived and about the history of an area of land. Sometimes they make exciting discoveries - like finding valuable or rare items or even bones and teeth.

*Sometimes a Council gives permission for housebuilding but with the condition that the house builder carries out an archaeological survey first. Why might they be asked to carry out an archaeological survey?*

### **POSSIBLE ANSWERS:**

They may be building near an historic church and their site might have been a burial ground. The building might provide evidence of an industry or craft or tradition which has now become obsolete (people don't do it anymore).

There might be records of an ancient settlement there which means there might be historic artefacts (things like weapons, tools and cookery implements) under the ground.

*Why might archaeologists carry out a dig at the Mill Waters heritage site?*

*If you know why the King's Mill Reservoir was originally created, that will give you a clue.*

### **ANSWER:**

The reservoir was created to provide a body of water to help power the cotton mills (or factories) which stood along the River Maun. Archaeologists might be able to find clues about the mills that once existed and the different processes.

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## LEARNING ACTIVITIES

### 2. Practical research activity

**Log on to the Heritage Gateway and see if you can find any interesting records for the area around your school:**  
[www.heritagegateway.org.uk/gateway](http://www.heritagegateway.org.uk/gateway)

If you search 'Sutton in Ashfield' it brings up 30 entries under the National Heritage List for England and some 261 results on the Nottinghamshire HER – there is a lot of history in the area.

Are there any archaeological monuments or areas of archaeological significance near your school?

Now go to the map search tool. You can find this by clicking on 'More detailed search' on the left of your screen, highlighted in dark grey in the screen grab on the right.

The screenshot shows a web browser window with the URL [www.heritagegateway.org.uk/Gateway/](http://www.heritagegateway.org.uk/Gateway/). The page features a navigation menu on the left with options: Home, More Detailed Search (highlighted in dark grey), Help and FAQs, Cookies, About Heritage Gateway, Historic Environment Records, National Datasets, Professional Access, Contact Us, and Terms And Conditions. The main content area includes a 'welcome' banner, a search bar, and a 'Quick Search' section with a search button and radio buttons for 'any order', 'exact', and 'any words'. A note at the bottom states: 'Please note that local HER records contain much more detailed information than is currently available here. Please contact the relevant authority direct for all planning matters or queries relating to their records.'

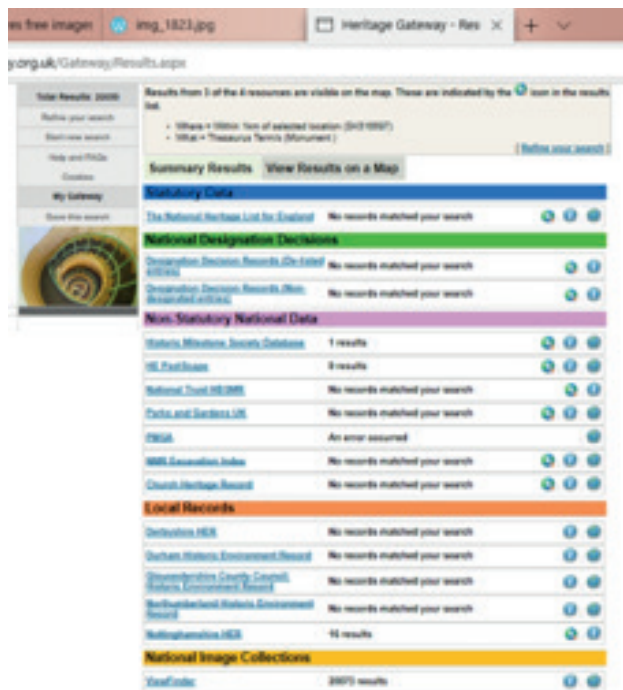
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From the map, zoom in on King's Mill Reservoir in Sutton in Ashfield, near Mansfield. The map has symbols for the different heritage records for that area.

Now search for 'Monuments'. It will bring up 16 results in the Nottinghamshire HER. See the screen grab below.



Take a look through the list. Find the following entries and write down the HER number and any other interesting information you can find from the record summary:

- The demolished King's Mill
- A Roman coin hoard
- A railway bridge 100m west of Hermitage Mill

Now take a look at what is held at the Nottingham HER. Can you find any records for the following:

- i) A textiles mill?
- ii) A hosiery factory?
- iii) A tramway?

Write down the HER record number and if there are any related records.

If you wanted, you could contact the HER in Nottingham and arrange to take a look at these documents.

David Littlewood who looks after the Nottinghamshire HER has kindly provided copies of two records relating to the Mill Water's Heritage Site, specifically for King's Mill and Dobson's (Unwin's) Mill which are provided as handouts for this pack.

Take a look at the records and write down answers to the following questions:

- i) The HER record number for both records
- ii) What type of mill was Dobson's Mill - what did it manufacture *[Answer: Cotton Mill]*
- iii) Where was Samuel Unwin's other mill? *[Answer: Tansley, near Matlock]*
- iv) What did the original King's Mill produce (before it was sunk by the Reservoir)? *[Answer: Flour]*
- v) King's Mill features in a book about the History of Mansfield. Can you name the author and the date it was published? *[Answer: History of Mansfield by WH Groves published in 1894]*
- vi) What is the National Grid Reference for both the records?

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## LEARNING ACTIVITIES

### 3. Secondary research and writing task

**Write an article for a local heritage society newsletter about what you have discovered about the Mill Waters heritage site from the extracts from the King's Mill and Dobson's Mill HER records.**

Can you find any images of Dobson's Mill to accompany your article? A good place to start is the 'Picture the past' website and the local library, Inspire, website.

As we can see in the HER record there are no photos of the old King's Mill, as it was submerged when the Reservoir was flooded.

Write down anything interesting you discover online about the King's Mill and its surroundings, and which website you took the information from.

\*You may wish to organise a visit to your local studies library in Sutton who will be able to identify useful books to look at.

Your article should include dates and details of any listed buildings or monuments (which are protected by law) associated with the site. Make sure you reference the HER records and any other sources of information you include (include details or any other books or websites that you have taken information from).