1 Overview

1.1.1 LINKS WITH OUR TIMES

Around eighteen hundred years ago men fought in bloody battles in an ancient Roman arena. Crowds bigger than those at most football matches cheered them on as each fighter slashed the other with a short sword, hoping to maim or kill him while ducking and weaving to avoid his opponent’s deadly blows.

At the end of this brutal contest the victor would turn to the emperor or the crowd and await their signal — to spare his opponent or kill him.

We do not know much about these individual fights but we do know these things happened, and we know why these warriors, who were called gladiators, killed and died. We know that other people at the time found it amusing to watch such horrors and that others thought it proper to provide such entertainment. We know these things because archaeologists and historians use clues like stone fragments and many other sources to bring the past to life. History uses evidence that includes all kinds of traces, from skeletons to old books, paintings and photographs. History involves using such evidence to try to find the truth about what happened in former times.

BIG QUESTIONS

As you work through this topic, look for information that will help you to answer these questions:

1. What methods do historians use to investigate the past?
2. How do we use primary sources?
3. How do archaeologists investigate the past?
4. How do we date archaeological evidence?

STARTER QUESTIONS

1. What do you think a skeleton could tell us about the past?
2. Imagine you are investigating gladiators in ancient Rome. What are three questions you would ask about them?
3. What are three questions you would ask about the re-enactment of the founding of Rome shown in the image?
4. ‘By understanding the past, we can better understand the present and prepare for the future.’ What do you think this statement means? Do you agree with it? Why or why not?
1.2 Examining the evidence

1.2.1 How and why do we study history?

History is a journey of discovery through time. Often it will excite you, and sometimes it will shock and amaze you. Sometimes it will seem as though the people of past societies were from another planet. At other times their actions and ideas will be as familiar to you as those of your friends and neighbours.

What is a historian?

In our own times there are many links with the past. For example, many people in modern societies attend performances of plays. This art form originated in some city-states of ancient Greece, where it was an important aspect of their culture. Research into past civilisations, cultures and societies is the work of historians. They try to build up a picture of how people in other times lived and acted. Historians try to make sense of past ideas, customs and beliefs, the ways people were ruled and how they made their living. Historians inquire into the past by examining sources. Historians also try to understand and explain how people’s lives were shaped by other people and events, what they thought about their times and how they brought about changes in their own world.

In this topic we will look at the following skills and concepts:

• Sequencing chronology — arranging events in order of time
• Using historical sources as evidence — analysing sources from the time we are studying to judge how reliable they are and exploring the different points of view, or perspectives, of people from the past. This also involves questioning later sources that are interpretations of that time.

In later topics you will develop further skills:

• Identifying continuity and change — identifying when and how changes occurred and what things remained unchanged
• Analysing cause and effect — determining how and why important things happened and how an event or idea or something else led to changes
• Determining historical significance — evaluating the importance of an event, idea, individual or group for the lives of people at the time and for later times.

1.2.2 The value of history

Some people question the need to understand the past. But there are many very good reasons for studying history. Knowledge of history helps us to understand our heritage. We start to understand where our ideas, languages, laws and many other aspects of our lives came from. We can also develop more open minds and learn to appreciate cultures that are different from our own. Conservation work similar to that shown in SOURCE 1 is one of the key responsibilities of archaeologists.

History, the present and the future

Perhaps you already know that we can never understand the time we live in or what the future may hold if we do not understand the journey that brought us to this point. Human societies did not appear in the present as if from nowhere. They developed over many thousands of years. By understanding the past we might just be able to avoid repeating past mistakes and make our world a better place in the future.
History, work and leisure

The kinds of skills you will learn while studying history are also important in many careers. These skills will help you to:

• carry out research
• draw conclusions and make decisions based on evidence
• recognise the difference between fact and opinion
• understand that there is usually more than one way of thinking about any problem
• think critically
• communicate effectively.

A knowledge of history is important in our everyday lives too. And history gives many people great personal pleasure. How much more enjoyment do people experience from travel, books and movies when they know about the history that shaped the places they visit or the stories they read or watch on a screen!

History and democracy

In Australia we live in a democratic society. This means we have the right to choose our political representatives and leaders through voting. We cannot vote responsibly, however, unless we can make our own judgements about the ideas these leaders put forward. To do that, we need to know something about the past.

1.2 PUTTING IT ALL TOGETHER

USING HISTORICAL SOURCES AS EVIDENCE

1 The masks in SOURCE 1 are held in the National Archaeological Museum in Athens, Greece. Each year the museum attracts millions of visitors from around the world. What might you be able to understand about ancient Greece just by using this source as evidence?

2 Look closely at SOURCE 2. Each year, many countries donate money for conservation work to preserve the remains of this ancient Greek temple. Why do you think so much effort goes into conserving such traces of the past?

IDENTIFYING CONTINUITY AND CHANGE

3 Today we live in a world where people are sometimes killed over differences in religion. How might a knowledge of history help bring understanding between different religions?

4 Fill in the spaces in the following passage by choosing words from the box below.

civilisations, beliefs, cultures, events, research

Historians conduct __________ into past __________, __________ and societies. Historians try to build up a picture of the ideas and __________ of people in the past, how they lived and acted and how their lives were shaped by __________.

5 What can we gain from understanding our heritage?

6 Explain what you understand to be the difference between fact and opinion. Give an example from your own experience.

DETERMINING HISTORICAL SIGNIFICANCE

7 Suggest why any one of the following possible events might have historical significance in the future for a historian researching and writing about the age we are living in.

a There was an increase in the number of Australians who did not practice religion.

b Inequality (the gap between rich and poor) increased in Australia.

c The Australian Government took in more refugees.
1.3 Ages, time and chronology

1.3.1 Dividing the past

At Year 7 level we will be investigating **prehistory** and **ancient history**. Because prehistory covers many tens of thousands of years, we usually describe prehistoric changes over millennia (blocks of 1000 years). Historians studying later times sometimes concentrate on particular centuries (blocks of 100 years) or even decades (blocks of 10 years).

To make sense of the past we divide it into ages or periods that have something in common. Prehistory is the prehistoric period (the time before people invented writing as a means of recording activities and events). It ended at different times in different parts of the world. For example, in China it ended thousands of years ago, while in Australia it ended a little over 200 years ago. We also use the terms Stone Age, Bronze Age and Iron Age. These refer to materials that people had learned to shape into tools and weapons in prehistoric and ancient times. Ancient history covers the time from the earliest **civilisations** around 3000 BCE to around 650 CE.

**Counting time**

In Australia, the system we have traditionally used to count years is one that was first used in Christian countries in AD 525. In this system, AD stands for *anno Domini* (Latin for ‘in the year of our Lord’). The year AD 2012 means 2012 years since the birth of Christ. However, although this system is still commonly used throughout the world, many historians now use the term CE (Common Era) instead of AD. The dates are the same: 2012 CE is the same year as AD 2012. We count forward, so 50 years later the year would be AD 2062 (or 2062 CE).

**BP and circa**

In prehistory many dates are uncertain. It is common to use BP (Before the Present) to indicate about how long ago something happened. For dates BP, the year 1950 CE is agreed upon as ‘the present’. When dates are uncertain we put ‘c.’ before them because it stands for *circum* (Latin for ‘around’).
To convert years BP to years BCE, it is close enough to simply subtract the current date and round it off. For example, in the year 2000 CE, a date of 8000 BP would be (8000 minus 2000) — that is, c. 6000 BCE.

Other ways of counting time
There are other ways to count time. For example, Islamic countries start counting from the time of the flight of the prophet Mohammed from Mecca. This occurred in the year 622 CE.

Chronological order and timelines
A story makes more sense if we start at the beginning and work towards the end. A timeline helps us to see how one event might have contributed to another. However, there is much more to history than putting events in order.

1.3.1 Activities

CHECK YOUR UNDERSTANDING
1. What is prehistory?
2. Explain how the prehistoric period differs from ancient times.

SEQUENCING CHRONOLOGY
3. The year 2016 is in the twenty-first century CE, so work out in which century each of the following years occurs: 705 CE, 1890 CE, 315 BCE.
4. Calculate the number of years between 195 BCE and 755 CE.
5. Write the meaning of the terms: millennia, centuries, decades, ages, BC, AD, BCE, CE and BP.

1.3 PUTTING IT ALL TOGETHER

SEQUENCING CHRONOLOGY
1. Look closely at SOURCE 1, the timeline. Use it to find dates for the earliest known writing and the first known Olympic Games.
2. Why do you think the date for the building of the Great Pyramid has ‘c.’ (for ‘circa’) before it?
3. Using SOURCE 1 as a model, make a timeline of your life up to the present. On it, write the important events of your life. Use the terms AD or CE, century and decade. Then explain how your timeline helps you to present an overall picture of your life so far.

IDENTIFYING CONTINUITY AND CHANGE
4. We use the terms Stone Age, Bronze Age and Iron Age to refer to ages in which people used those materials as their most advanced materials. Work in small groups to suggest an appropriate name (based on materials) for the age in which we now live.

1.4 Detective work

1.4.1 Written sources and archaeological sources
All our evidence for the past comes from primary sources. These are sources that were created in the time we are investigating. Depending on the event and place, primary sources might include bones, stone tools, letters, newspapers, art, photographs or many other traces. For prehistory we have no written primary sources, but for most periods of history we can divide primary sources into written and archaeological sources.

Written primary sources can include such things as poems, songs, letters, myths and legends. They might have been written on paper, painted on stone walls or inscribed in stone, metal or clay in ancient languages.

Archaeological sources are objects that were made in the past. They include many kinds of artefacts such as tools, weapons, pottery, coins, games, toys and jewellery. Some artefacts have written sources inscribed on them. Archaeological sources also include works of art such as sculptures and paintings, and constructions such as tombs, temples and sometimes entire cities.
Can we trust our sources?

You may think that a written primary source should be reliable evidence because it was made at or around the time events occurred. But a source may be fact or someone’s opinion — that is, it could be biased. One way to test sources for reliability is to compare them with other sources. If this evidence leads to the same conclusion, we call it supporting evidence. If it leads to different conclusions, we have contradictory evidence. When we use primary sources to try to find out about the past, we have to ask some questions. For example:

- Who created these sources and when were they created?
- What evidence do the sources provide?
- Can I trust my sources?

**SOURCE 1** Some types of primary sources

<table>
<thead>
<tr>
<th>Maps and diagrams</th>
<th>Remains of buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paintings and carvings in tombs and caves</td>
<td>Remains of shipwrecks</td>
</tr>
<tr>
<td>Weapons</td>
<td>Statues</td>
</tr>
<tr>
<td>Mosaics</td>
<td>Translations of works of ancient writers</td>
</tr>
<tr>
<td>Coins</td>
<td>Photographs and reconstructions</td>
</tr>
<tr>
<td>Tombs</td>
<td>Preserved body or skeleton</td>
</tr>
<tr>
<td>Pots and cups</td>
<td>Ancient inscriptions</td>
</tr>
<tr>
<td>Tools</td>
<td>Graffiti</td>
</tr>
<tr>
<td>Figurines</td>
<td>What other people have written</td>
</tr>
</tbody>
</table>

**1.4.1 Activities**

**CHECK YOUR UNDERSTANDING**

1. What are primary sources?
2. Describe the difference between written primary sources and archaeological sources.

**USING HISTORICAL SOURCES AS EVIDENCE**

3. Explain what the term ‘bias’ means and why we might not be able to trust a primary source.
4. Describe a way to test primary sources for reliability.
5. Look at the mind map in **SOURCE 1** and describe each of the archaeological sources pictured around the mind map.
6. Suggest what we might learn about the past from old graffiti or one of the other types of primary sources listed in the mind map.
1.4.2 Interpreting the evidence

Forming a hypothesis

Using our primary source evidence, we form a **hypothesis** (a possible theory to explain what happened). To test the hypothesis we look for other evidence that supports it. We also look for evidence that contradicts it. We need to be careful. We have to ask: What other information do I need to support my theory?

Just as in the investigation of a modern crime, we look at what contributed to an event and how those things fit together. We ask questions that begin with who, what, where, when, how and why. In this way, history is like any other kind of investigation, but it is more difficult because there are often gaps in our evidence. We usually cannot find all the clues we need. It can be like trying to solve a jigsaw puzzle when many pieces have been lost.

**SOURCE 2** This ancient stone sculpture was made around 1000 BCE by people called Hittites in the Middle East. It depicts a storm god.

**SOURCE 3** These prehistoric carvings on bone were found in France. They are about 11 000–18 000 years old.

**SOURCE 4** Creevykeel *Megalithic* Tomb, a stone tomb built in County Sligo, Ireland, around 3000 BCE. The tomb has been excavated. The stone wall at the back is not part of the tomb.

**Secondary sources**

Secondary sources include books and articles. They can also include models, computer software and documentary films. Secondary sources are reconstructions of the past by people living at a later time. To create secondary sources, historians:

• locate information in primary sources
• interpret that information
• use it to explain what happened.

**Archival research**

When historians research historical periods during which written records were kept, they often find many of their primary sources in archives. These are organised...
collections of records. For example, historians researching the history of Christianity in medieval times might carry out their research in the Vatican Archives. These records of the Roman Catholic Church are held at its headquarters in Rome.

**Contestability**

Wherever historians find their primary sources and whatever methods they use to test their hypotheses and interpret the past, there will always be differing interpretations that are debated and contested. The issue of contestability is a very important concept in the study of history. Historical debates are ongoing. They occur when, for example, there is a lack of evidence or when different perspectives (points of view) lead to different conclusions. There are ongoing debates on many things, including the causes of particular wars and the roles of particular individuals, groups and ideas in bringing about significant changes.

**An example of contestability**

There have been debates around how long Indigenous peoples have lived in Australia. Most historians believe that there is evidence that the human occupation of Australia began at least 40,000 years ago and possibly even as long as 60,000 years ago. However, when evidence was found suggesting a big increase in charcoal at Lake George, near Canberra, around 100,000 years ago, one scientist used it to argue that it must have been caused by Indigenous people burning the bush at that time. Other scientists and historians concluded that the charcoal was more likely to have been caused by fires started by lightning strikes. In later subtopics, as you find other examples of contestability, you will see that there is very often more than one way to interpret the evidence from the past.

1.4.2 Activities

**CHECK YOUR UNDERSTANDING**

1. What is a secondary source?
2. How do historians create secondary sources?
3. Complete the following sentences:
   a. Archives are organised ________ of ________ sources.
   b. A hypothesis is a ________ that has to be tested by looking for ________ that might support it and ________ that might contradict it.

**USING HISTORICAL SOURCES AS EVIDENCE**

4. Form a hypothesis that might explain why either **SOURCE 2** or **SOURCE 3** was made and suggest what other evidence you would need to test your hypothesis.
5. Why might it be wrong to use **SOURCE 5** as evidence for a hypothesis that most ancient Egyptians could read and write?
6. Look at the tomb in **SOURCE 4**. Working in small groups:
   a. Describe the main features of Creevykeel Megalithic Tomb.
   b. Make up five questions a historian could ask to guide an investigation of this tomb.

**1.4 PUTTING IT ALL TOGETHER**

**USING HISTORICAL SOURCES AS EVIDENCE**

1. Why would it be wrong to think that primary sources are more reliable than secondary sources?
2. Make a list of some kinds of primary sources that could be used to create a history of your school (a secondary source). Beside each source in your list, write down what you think you could find out by using it as evidence.
3. Consider the issue of contestability.
   a. For about how long do most archaeologists and historians believe Indigenous peoples have lived in Australia?
   b. What evidence was used to support a theory that they had been in Australia much longer and why did other scientists and historians dismiss this interpretation?
1.5 Evidence from archaeology

1.5.1 Digging up the past

Historians often draw on the work of other experts. Archaeologists are most important among these experts. Archaeologists examine the physical remains of the past; they collect or record and interpret them. Sometimes we already know where to find such archaeological sources. Examples include sites such as the pyramids in Egypt and the Great Wall of China. Very often, however, archaeologists have to dig to find evidence of the past. Generally, the older the site, the deeper the dig has to be.

**SOURCE 1** Activities at an archaeological dig

- **A** Finds are carefully washed and labelled to record the trench and layers in which they were found.
- **B** Strata revealed by the trench help archaeologists to date the various layers of the dig.
- **C** Brushes and trowels are used to carefully uncover objects.
- **D** Objects and sections of the site are photographed.
- **E** After the site has been searched for objects, earth is removed from the trench.
- **F** Positions of objects are recorded using drawing frames divided into squares.
- **G** An ongoing record of progress at the dig is kept.
Deciding where to dig

The first decision archaeologists have to make is where to dig for remains of past times. Many remains are buried over time by wind-blown sands, sediments from floods or volcanic ash. Some remains are hidden but there may be clues to their whereabouts in sources such as old documents. Caves are likely places in which to look, and so are mounds of earth or other features that suggest that humans have changed the landscape (see SOURCE 2). Sometimes ancient remains are found purely by accident.

Modern archaeologists also use a number of scientific techniques. Aerial and satellite photography can locate patches of earth that have different temperatures or different vegetation caused by buried settlements or tombs. Sonar equipment can be used to locate relics, including sunken boats, that lie beneath seas.

SOURCE 2 Mounds called barrows were made in England in prehistoric times. They were usually the burial place of a chief or king.

SOURCE 3 Remains of a ditch called a moat that was dug around a castle at Old Sarum in England in the eleventh century CE.

DID YOU KNOW?

For investigations of prehistoric and ancient times, historians and archaeologists also use important information from other scientists. Anthropologists study human behaviour, especially in tribal societies. Their findings help historians to understand past societies. Palaeontologists study fossils (traces of humans and animals from prehistoric times). Cryptographers specialise in breaking codes. Their skills have helped us to decipher and read some ancient languages.
Excavating remains

Once the site for an excavation, or dig, has been decided there are several steps to follow. Archaeologists have to obtain permission to dig from the government of the country in which the site is located. They then survey the site, marking it out in squares with pegs and strings. When digging commences the archaeologists must be careful not to damage remains. The remains might be close to the surface. But in sites that have been occupied for a long time there can be several layers of remains. These layers are called strata and the oldest remains will normally be in the deepest strata. As they remove earth, the archaeological team searches carefully for remains. They label each find to record the square and level in which it was found.

Help from other scientists

Other scientific experts and new technologies are frequently used to help archaeologists to interpret their finds. Such experts include forensic pathologists who examine human remains to find evidence of what people ate and what might have caused their deaths. Technologies include computer programs that can analyse remains of buildings to create 3D images suggesting how they once looked.

1.5.1 Activities

CHECK YOUR UNDERSTANDING
1 What three tasks describe the main work of archaeologists?
2 List the kinds of clues that help archaeologists to decide where to dig.
3 Name two technologies that help archaeologists to locate sites for digs.

USING HISTORICAL SOURCES AS EVIDENCE
4 Write descriptions of four activities that people are performing in SOURCE 1.
5 Examine SOURCES 2 and 3.
   a Describe what you see in each photograph.
   b Explain why it is obvious that humans did something to change the landscape shown in each photograph.
   c What might an archaeologist expect to find on a dig at either of these sites?

1.5.2 Survival by chance

Only some archaeological traces of the distant past have survived. Many more have been destroyed by a range of causes. These include:
• demolition and rebuilding
• natural decay and erosion by wind, rain and floods
• theft. Almost all of the tombs of the Egyptian pharaohs were robbed of their treasures in ancient times.
• war. Many ancient towns and cities were smashed and burned in wars.

1.5.2 Activities

CHECK YOUR UNDERSTANDING
1 List two causes of destruction of archaeological traces.
2 What kinds of archaeological traces would be most likely to be lost through theft?

1.5.3 Clues from pottery

One of the most common and important sources of archaeological evidence is pottery. Pottery is made by shaping wet clay and then baking the clay so that it hardens and keeps the shape the potter has given it. Pottery has been made for about 10 000 years in much of East Asia, the Middle East and the Mediterranean region. It was used in much the same way that we use glass and plastic bottles and jars today — mainly for holding and storing food and drinks. There is a lot of evidence from pottery because people threw away their broken pots. The broken pieces are called sherds and even small pieces can help in building up a picture of the past. Archaeologists have named some prehistoric people after the style of pottery they made.
Particular pottery styles can be identified with different ages. For example, in one period a typical container made of pottery might have a long neck but no handles. In another age a typical style might have a short neck and a handle. Such differences help archaeologists to compare pottery from different sites to decide whether they are likely to belong to the same age or to a different time. Further clues are provided by decoration. Some vases, jugs, urns and bowls were engraved or painted with scenes showing the customs, work, stories and beliefs of the societies that produced them.

**SOURCE 4** Painted pottery from ancient Greece, sixteenth or fifteenth century BCE

**SOURCE 5** Small pottery vases found together in Rome. They are from the first century BCE. Each contains a small piece of bone from a dead person, and each has an inscription stating the person’s name and date of death.
1.5.3 Activities

CHECK YOUR UNDERSTANDING
1. What did people do with broken pottery in ancient times?
2. Why is pottery such an important source of evidence for archaeologists?

USING HISTORICAL SOURCES AS EVIDENCE
3. Look closely at the details in SOURCES 4 and 5. Use these details and information in the captions to form a hypothesis about each of the civilisations that made these items.

1.5 PUTTING IT ALL TOGETHER

USING HISTORICAL SOURCES AS EVIDENCE
1. Imagine you are one of the people in SOURCE 1 and that the site you are excavating is thought to be the remains of a city that was destroyed in an ancient war. Describe in a diary entry your feelings about your day's work, what you might hope to find and what you might actually have found.

IDENTIFYING CONTINUITY AND CHANGE
2. Working in small groups, list reasons why there would usually be more archaeological evidence from ancient times than from prehistoric times.

1.6 How old is it?

1.6.1 Dating techniques
Archaeologists are finding evidence of our past all the time. Before we can assess what the source of evidence tells us about past human activity, we need to know how old the source is. Being able to date evidence allows historians to place events and human behaviours in time order. It also helps to identify any links between past groups of people. Sometimes it allows experts to detect fakes.

Some dating methods will not reveal how old something is — just whether it is older or younger than something else. These methods are called relative dating techniques. Two of these are stratigraphy and fluorine dating.

Stratigraphy is the study of the different strata or layers revealed when a slice is cut down through the earth.

The longer that bones lie in the earth, the more fluorine they absorb from the soil. So the more fluorine it has, the older the bone. Fluorine testing was used to expose one of the most famous scientific frauds in history — the Piltdown Man. For 41 years the skull of this so-called creature had been accepted as firm evidence of the 'missing link' between ape and man. Fluorine testing conducted in 1953 found that the top section of the skull was much older than the jawbone and teeth. It was then revealed that the remains of a human skull had been carefully joined with those of a chimpanzee. It is still a mystery who set up this amazing fraud.

What’s its age?

Absolute dating techniques are used to work out the actual age of something or someone. Archaeologists combine these with relative dating techniques. For example, if absolute dating techniques prove that an object is 1000 years old, and the object was found in a particular stratum (or layer), then archaeologists can generally assume that any objects found in strata below this will be more than 1000 years old.

There are many different absolute dating techniques.

Radiocarbon dating
All living things absorb C14, which is a radioactive form of carbon. This chemical process stops when the human, plant or animal dies. Then any C14 in the once-living tissue starts to decay. Scientists know the rate at which C14 breaks down. By working out how much of it still remains, they can work backwards to establish the likely date of death, and hence the approximate age.
One famous object that has been radiocarbon dated is the Shroud of Turin — said by some to be the cloth in which Christ was wrapped after his crucifixion. These tests, carried out in the late 1980s, indicated the cloth was only around 700 years old. Then further tests were done. These proved that only the bacteria and mould on the cloth were around 700 years old. The mystery continues. Written records confirm the cloth did exist in 1357.

Limitations of radiocarbon dating

This diagram indicates different types of objects that might be found during the excavation of a site that has been occupied over thousands of years. Radiocarbon dating gives approximate dates before the present. There is a 95 per cent chance that the true date falls within 200 years either side of any estimated radiocarbon-dated age. However, radiocarbon dating cannot date anything that died more than about 40,000 years ago. In such remains there will not be enough C14 left for radiocarbon dating to work. Artefacts such as stone tools cannot be dated this way because they were never alive. But if they were found alongside a layer of plant remains or charcoal, that material could be dated, and the age of the tools would probably be similar.

1.6.1 Activities

CHECK YOUR UNDERSTANDING

1 What are strata?
2 Will objects found in a lower stratum be older or newer than those found in a higher stratum?
3 What is radiocarbon dating, and how can knowing the rate at which C14 breaks down help in finding out the likely age of any once-living remains?

USING HISTORICAL SOURCES AS EVIDENCE

4 Look at the artefacts illustrated in SOURCE 1. Describe the kinds of changes that must have happened in ways people lived at this site over many ages.
5 Examine SOURCE 2 and use the internet to find out why the Shroud of Turin is still regarded by many people as something of great historical significance.
1.6.2 Tree rings tell stories about the past

What might seem like one of the strangest of all dating methods involves using tree rings and so we call it tree-ring dating. The scientific name for this method is dendrochronology. All trees have tree rings and they can help with dating old objects. But the technique only works if the objects were made of wood. The age of a tree is worked out by counting the number of rings in the wood. A new ring is formed every year in a tree’s life. The width and shape of each ring depend on environmental conditions such as rainfall and soil type. All trees of the same type growing in the same area will have the same environmental conditions, so the pattern of their growth rings will be very similar.

Sometimes the age of wooden items such as spear handles and roof beams can be worked out by matching the growth rings in the wood with those in a dated sample from trees in the same area — as long as they are of the same species.

SOURCE 3 Tree growth rings

1.6.2 Activities

CHECK YOUR UNDERSTANDING
1 What is another name for dendrochronology (see SOURCE 3)?
2 How might dendrochronology help in finding out the age of wooden objects?

1.6 PUTTING IT ALL TOGETHER

USING HISTORICAL SOURCES AS EVIDENCE
1 Design a mind map, like the one in 1.4.1, SOURCE 1 to represent the technologies that help archaeologists to date the sources of evidence that they discover.

IDENTIFYING CONTINUITY AND CHANGE
2 Imagine you are an archaeologist investigating a recently discovered ancient site. You have found pottery, books, wooden furniture and bones. Identify and describe the dating techniques you could use to work out the ages of each item and which of them is older than others in order to discover what changed over the centuries during which the site was occupied.

DID YOU KNOW?

In recent years, DNA evidence has become another important scientific method for discovering information that can be used by archaeologists and historians. DNA samples can tell us who people’s ancestors were. Using DNA analysis, scientists have found that the ancestors of all modern humans came from Africa (see topic 2 The ancient world: c. 60 000 BCE to c. 650 CE).
1.7 Perspectives and empathy

1.7.1 Understanding how they thought and felt

It is very important for historians to empathise with those they study. This means trying to understand how people thought and felt at different times in the past. At different points throughout this book you will be asked to put yourself in the situation of someone in the past. This is not a creative writing task, in which you can let your imagination run wild. Rather, you will be using historical imagination. This requires using your imagination, but basing your ideas on evidence.

We try to understand the perspectives of people in the past through exploring their points of view, attitudes and values. Often we can get a sense of the way people thought and felt through primary sources such as diaries or through visiting museums and historical sites. Using empathy, we work with all the evidence we have in order to imagine what the past was like for people who were there at the time. We need to consider such questions as:

- Who were these people?
- Where did they live?
- How did they live?
- What mattered to them?
- What did they believe in?
- What did they see, hear, taste, smell and feel?
- What did they fear and what did they hope for?
- Did they have feelings similar to or different from ours?
- Did they all think and feel the same as one another, or did they have differing perspectives?

How should we judge people in the past?

When we learn about some of the things people did in the past, it is natural that we make moral judgements. For example, we naturally see slavery and torture as cruel. What we should try to avoid is judging people in the past by beliefs or standards that did not exist in their time.
would be wrong, for example, to judge a Roman army officer as being particularly cruel because he allowed his prisoners of war to be sold as slaves. At that time he would have been upholding the laws and attitudes of his society. However, some ancient Romans were cruel even by the standards of their own time. We should also remember that in the future, people may think that many kinds of behaviour we consider normal are, by their standards, wrong.

**SOURCE 2** The Colosseum was a vast amphitheatre in ancient Rome. To entertain Roman crowds, slaves trained to be gladiators were forced to fight, often to the death, against other gladiators or against wild animals that had been tormented to make them ferocious. Most gladiators were men but at least a few were young women. This artwork shows what happened below the arena as well as what happened above ground.
1.7.1 Activities

CHECK YOUR UNDERSTANDING
1. What does it mean to empathise with people you study?
2. How is empathy different from sympathy?
3. How is historical imagination different to just letting your imagination run wild?
4. Why could it be wrong to judge people from past times by the standards of our times?

USING HISTORICAL SOURCES AS EVIDENCE
5. Examine SOURCE 1.
   a. Discuss whether the Colosseum’s bloody past is what makes it such a big tourist attraction.
   b. How do you think modern visitors to the Colosseum feel about its cruel past?
   c. How would you explain such changes in attitudes over time?

1.7 Putting it All Together

USING HISTORICAL SOURCES AS EVIDENCE
1. Imagine you are one of the gladiators shown in SOURCE 2 and describe:
   a. what you can see, hear, taste and smell
   b. how you feel about what you are doing and your chances of survival
   c. how you feel about your opponent who, like yourself, is only doing what he is forced to do
   d. what you feel about the crowd that is cheering for you to kill or to be killed.
2. Imagine you are one of the soldiers guarding the arena or forcing gladiators up from the tunnels and cages below. Would you be likely to consider what you are doing immoral or would you accept it as ‘the way things are’?

3. Not all ancient Romans liked watching gladiators fight, but many did. What do you think most of the crowd would be feeling?

IDENTIFYING CONTINUITY AND CHANGE
4. Working in small groups, think of something that happens in our own time that some people believe is wrong. An example could be the way some countries are wealthy while in others children die of starvation and preventable diseases. Do you think that at some time in the future people might consider ours to have been an unjust age? Report back to the class and give reasons for your answer.

1.8 SkillBuilder: Sequencing events in chronological order

What is a timeline?
A timeline is a diagrammatic tool for placing events in chronological order (the order in which they happened).

Go to your learnON course to access:
• An explanation of the skill (Tell me)
• A step-by-step process to develop the skill, with an example (Show me)
• An activity to allow you to practise the skill (Let me do it)
• Questions to test your application of the skill (Applying skills)
1.9 Review

This final subtopic provides a range of opportunities for you to review and respond through:

i. revising and checking your historical knowledge

ii. demonstrating your ability to apply historical concepts and skills.

Go to your learnON course to access:

• A key chronology of events relevant to the topic
• A summary of the key knowledge presented in the topic
• A ‘Big Questions’ activity
• A multiple choice topic test
• Short answer or extended writing responses

on Resources

Interactivity

Time out: Sources
Identify whether a series of artefacts are primary or secondary sources.

int-0782

Interactivity

World history timeline
Create a visual timeline of key events in the history of the world.

int-2932