Chapter 1

INVESTIGATING HISTORY

INTRODUCTION

History is about people’s experiences of life in past times. We study history to learn about:
• what people did
• how they felt
• the reasons for their actions
• the results of their actions.

This chapter looks at how historians approach the study of history and the methods they use to gain the best understanding of people and societies of the past.

This chapter can be studied as a discrete topic or students can refer to it at relevant points in their study of the societies covered in this book.

Historical knowledge and understanding
• Learn about the historical concepts of change and continuity over time.
• Learn about cause and effect in relation to people’s motives, actions and the consequences of their actions.
• Learn how the past is uncovered in our own times.
• Learn how the contributions of different experts shape our understanding of what history is.
• Recognise different types of sources.

Historical reasoning and interpretation
• Frame questions and plan investigations.
• Develop skills in gathering and documenting evidence.
• Make judgements about the obvious and underlying messages in sources and the usefulness and reliability of sources.
• Recognise that people can interpret the past in different ways.
• Use key words and conventions in the language of history.
• Communicate your understanding of history through a variety of presentations.

Off the coast of Egypt in 1996, underwater archaeologist Franck Goddio discovered the ancient city of Alexandria. This diver examines a pillar carved with hieroglyphics — one of the many fragments and remains that are helping historians to understand more about this ancient wonder.
AD: anno Domini, meaning ‘in the year of our Lord’. This term is used to indicate the years since Christ’s birth.
age: a period of time named for a common feature of that time, for example the Bronze Age, the Jazz Age
anachronism: a practice, event, object or person that is placed outside its original time period
archaeologist: a person who finds out about the past by digging up objects left by previous civilisations
artefacts: objects made or altered by people (for example, weapons, tools and ornaments)
BC: meaning ‘before Christ’. This term is used to indicate the years before Christ’s birth.
BCE: ‘before the common era’; used instead of BC
CE: ‘common era’; used instead of AD
chronological order: the sequence in which events happened (from the earliest to the most recent event)
conservation: the process of preserving something either by keeping it in its existing state, restoring it to its original state or adapting it to a new use which still protects its cultural significance
dendrochronology: tree-ring dating, a method of telling the age of wood
evidence: information that proves or disproves something
generation: the name given to the body of people born in about the same ten-year time span as one another
heritage: all things which we have inherited from previous generations and which we value, including events, traditions, influences and experiences
hypothesis: a theory that tries to answer questions about the past and which can be tested against the evidence given by a historian’s sources
memoir: a person’s written record of his or her own life
persecute: to constantly treat a person or group of people unfairly or cruelly
perspective: a person’s point of view or outlook on life
prehistoric: belonging to a time before people created written records (more than 5000 years ago)
prejudice: dislike of a person or group of people, often the person’s or group’s race, culture or religion
primary source: a source that was created during the period the historian is investigating
radiocarbon dating: also known as carbon dating; a method of estimating the age of an object by measuring the amount of carbon 14 left in organic remains such as wood, bone, charcoal or fossils
secondary source: a source that was created after the period the historian is investigating
sources: written and non-written items that help us to understand past events and people, and information about what others thought about these
thermoluminescence dating: a method of dating objects, such as pottery, that works on the basis that mineral crystals contained in clay and stone are released, when heated, in the form of light. By reheating the object and measuring the amount of light it releases, it is possible to say how long ago it was last heated.
World Heritage site: a site of natural or cultural importance, listed by the World Heritage Commission
History and the Historian

WHAT IS HISTORY

History is the study of the past. The history that we study is what we know about the past. It is based on:

• what historians and other experts have uncovered through their research
• what they have learned and reported from their sources of information
• the knowledge, values, experiences and attitudes that have influenced their writings
• the judgements that you and other people make about whether or not we can trust what historians report to us.

Thinking about all these factors helps us to realise that we cannot fully recover the past. We can investigate and gain an understanding of some aspects of the past. We can also read and listen to other people’s ideas about the past without automatically believing them. Our understanding of the past is linked to our beliefs about what the study of history involves.

When you look at the past through this book and other sources of information, you will study people of all classes and cultures, their experiences of life in particular times and places and the things that influenced their way of life. You will investigate what people did and the reasons for their actions. You will study the results of their actions and try to understand the feelings, beliefs and motives influencing people’s actions and responses. In doing these things, your investigation of the past will be based on a belief that history is about:

• the lives and actions of all peoples in the past
• male and female experiences of life in the past
• the experiences and actions of peoples in all parts of the world
• both change and continuity throughout past eras
• ordinary life as well as ‘important events’
• the experiences and ideas that connected people to others in areas beyond their own borders as well as the experiences and ideas that separated them.

Your teachers will encourage you to enjoy investigating and trying to understand the past. It is something that is worthwhile for you to do, and it will help you to understand what has influenced your world and what it can become during your time on this planet.

WHAT DO HISTORIANS DO?

Historians are people who are trained to investigate the past. They show us what the past was like. For historians, history is the challenge of looking at the past and trying to work out what happened. To help them understand the past, they search for sources that have survived from the past (see source 1.1.1). That is, they collect:

• what remains of past times
• information about what other people have thought about these remains.

They use these sources to come up with their own ideas about the past. We will discuss sources in more detail on pages 10–11.

Sometimes historians discover new evidence and think about different interpretations of sources. This means they have to understand their sources and test whether their sources are reliable. Then, based on their conclusions, historians tell other people what they think the sources mean. Historians try also to use their own knowledge and intelligence to fill out the parts that are missing from what we know about the past.

The goal of the historian is to reconstruct the past in order to come as close to the truth as possible. Historians may disagree with one another on what an object or artefact was used for, or the age of a document. These disagreements are useful because they make sure that historians look at points of view other than their own. Historians help keep one another ‘honest’.

When historians complete their research, they hope to have enough evidence to prove the particular conclusions they have set out to prove. They publish their research to share knowledge with others and allow people to check that they have carried out their work honestly. Often, they will also indicate those areas that still need to be investigated before a more complete understanding of the topic can be gained.
People working in many other professions also have skills to investigate the past. These include archaeologists, anthropologists, cryptographers, linguists, forensic scientists, palaeontologists and many other experts whose skills are important in understanding the remains of past times. We will look at the work of some of these specialists on pages 14–17.

**Activities**

**Understand**

1. Write a paragraph of 8–12 lines in response to the question ‘What is history?’. Include your own ideas as well as those you have read about here and in other sources.
2. Answer the following from the information in the text and from your own ideas.
   (a) Why can’t we fully recover the past?
   (b) Why can’t we fully recover the history of our own families?
3. Why is the past important to us?
4. What do historians do?
5. Explain in your own words why it is useful for historians to disagree with one another.

**Think**

6. You be the historian! Think of an important event in your own family life. It might be a birth, a marriage, a death or a turning point of some kind. If you were a historian researching this event:
   (a) what sources of information would you use to try to gain a full understanding of the event
   (b) what feelings or other influences would affect the way you think about and respond to this event
   (c) what sources of information about this event might be incomplete or unavailable to you?

**Use sources**

7. Use magazines or an Internet image bank to find pictures that show source types listed in source 1.1.1. Create your own mind map to show the range of sources historians can use to discover what life was like in past times. Use both pictures and words.
HISTORY IS ABOUT PEOPLE

History includes the study of all peoples of past times and places.

When we learn about the past, we start to understand the relationships between individuals and groups in the past — for example, how they lived, how they governed themselves, what they believed in and why their conflicts arose. We see how people and their actions may have been influenced by political situations or economic issues and by the attitudes and values of their societies. This knowledge helps us to understand how cultures and societies have developed to become what they are today.

We also learn that people in the past did not always have the same attitudes and values that we have in modern Australia. Our world has changed over time. Some changes have led to progress and improvement in people’s lives. Others have made the world worse off than before.

HISTORY IS ABOUT MOTIVES

The monument shown in source 1.2.2 is called Stonehenge and it is located on Salisbury Plain in southern England. People put these large rocks here about 4000 years ago. This was an amazing achievement when we consider the distances they had to travel to transport the heavy building materials and the skill with which they put the monument together — all without the benefits of modern technology.

Source 1.2.2

A photograph showing the large blocks of stone that are part of the historical site known as Stonehenge in southern England

Stonehenge is one of the most visited tourist sites in England and is now classified as a World Heritage site. Many people come here because they are fascinated by the different stories they have heard about who built it and why they did so. For example:

• In the twelfth century, Geoffrey of Monmouth claimed that African giants brought the stones to Ireland, and from there the wizard Merlin flew them across the sea to England.

• Others claim that visitors from outer space created the monument.
• Some believe that sunworshippers created it.  
• In the 1960s, the astronomer Gerald S. Hawkins suggested that Stonehenge must have been created as an astronomical observatory. What motivated people to put about 1500 years of time and effort into building and re-building this structure? Historians and archaeologists tend to think people created Stonehenge as a place of religious worship but they are not really sure.

**HISTORY IS ABOUT CONSEQUENCES**

Historians need to consider people’s actions in the past and the consequences of those actions. For example, historians have written a good deal about war. It is important for historians to understand which side gained victory, which side experienced defeat and the reasons for this result. What is just as important are the experiences of the people on all sides of a conflict who are the victims of war — the physical, emotional, economic, cultural and political costs that are the consequences of war.

History is thus about the results or consequences of people’s actions as well as the actions themselves. These consequences are often not what was intended or expected.

**Activities**

**Communicate**

1. Write a paragraph of 10 to 15 lines to explain how people are important to our study of history.

**Think**

2. Think of an important monument that people built many centuries ago. Find out what motivated people to build it. What does understanding these people’s motives teach us about them?

   (a) What are the main short-term and long-term consequences of this event (so far)?
   (b) What different groups in our world were affected by the consequences of this event?
   (c) Why is it important for historians to understand the role of people in this event, the motives for people’s actions and the consequences of these actions?

**Use sources**

4. Use a dictionary of biography or the Internet to find out why each of the people in source 1.2.1 might be regarded as significant. Use your information to complete this sentence for each of the people shown: ‘People remember me because …’.

5. What questions would you ask to gain a better understanding of Stonehenge (source 1.2.2)? You can explore it using the virtual site study on the CD-ROM (see page 21).

6. What does source 1.2.3 show us about one of the consequences of the 2003 war in Iraq? List some of the other consequences that you think might have resulted from this war.

**Teamwork**

7. In groups of four or five:
   (a) list some important people from the past
   (b) discuss what you know about these people
   (c) choose one personality for the group to research
   (d) ask who?, what?, where?, when?, how? and why? to help select the most important information to record about the person
   (e) combine the group’s findings, then prepare and present a one- to two-minute oral report (talking, not reading) about your chosen personality. You may wish to use PowerPoint to display your main points for the presentation.
   (f) choose a member of the group to present the report to the whole class and make sure you include a large picture of your personality.

A photograph showing one of the many consequences of war for the people of Iraq in 2003: loss of homes and possessions
Putting events into the order in which they happened is putting them in **chronological order**. Chronological order helps us to make sense of the past. For example, once we know that something took place after an event, we know it was not a cause of that event.

Timelines show the order of events during a day, a year, a decade, or any other time frame useful for what we want to record. Source 1.3.1 is the beginning of a timeline to show the events of a typical school day. The events would be written vertically at the place on the line when they occurred. (Two events have been marked to show this.) Timelines always have equal divisions to indicate how time is being measured. Source 1.3.1 shows time in hours, with each hour represented by eight millimetres of space.

**Source 1.3.1**

Outline for a timeline to show the events of a typical school day by hour

<table>
<thead>
<tr>
<th>Time (am)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>7.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>8.00</td>
<td></td>
</tr>
<tr>
<td>9.00</td>
<td></td>
</tr>
<tr>
<td>10.00</td>
<td></td>
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<td>11.00</td>
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<td>12.00</td>
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<td>1.00</td>
<td></td>
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<tr>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>4.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>5.00</td>
<td></td>
</tr>
</tbody>
</table>

**Dividing time**

Historians use different ways to divide time. They give names to periods of time such as the **Stone Age**, named after the stone tools used in that time. People talk of the **Bronze Age** and the **Iron Age** for similar reasons. These three periods all belong to the **prehistoric** period — the time before written records of the past. People have left written records for only the past 5000 years.

Time can be divided according to the name of the family or person who ruled an area during a certain period. Historians may talk about the Han dynasty, when members of the Han family ruled in China. Some periods of time are named for an important event or influence. For instance, the Renaissance was a period of new ideas about art, music, literature and science. ‘Space Age’ describes the period when advances were made in space exploration.

**Starting points for counting time**

People’s religious beliefs influence their ideas about time. Muslims count time from the year when the prophet Mohammed left the city of Mecca. To a Christian, this would be the year 622. Christians count time from the birth of Christ. Mohammed left Mecca 622 years after the birth of Christ. Jewish people count time from the year of the world’s creation. To Jews, the year of Christ’s birth would be 3761, as he was born about 3760 years after the year when they believe the world was created.

**BC, AD, BCE and CE**

In many parts of the world, people divide time using the Christian Gregorian calendar. Pope Gregory XIII introduced this calendar in 1582. It follows the practice introduced by a monk named Dionysius Exiguus over 1000 years earlier. Dionysius described time after Christ’s birth as *anno Domini*, Latin for ‘in the year of our Lord’. This is abbreviated to **AD**. Over the centuries, other scholars came to talk of the time before this as ‘before Christ’ (abbreviated to **BC**). This system does not use a zero, so its first AD year is AD 1 and...
its first BC year is 1 BC. Dates written without either AD or BC are usually taken to be AD. When we cannot be sure of the exact date we use the word ‘circa’ meaning ‘about’. This is abbreviated as ‘c’. 

**Source 1.3.3**

![Diagram showing different starting points for counting time](image)

Since Christians make up only one-third of the human race, historians have come up with two more ‘neutral’ terms to use with this dating system. BCE, meaning ‘before the common era’, nowadays often replaces BC; and CE, meaning ‘common era’, often replaces AD. This is an attempt to develop a system of dating that is acceptable to people of all cultures and religions.

**Centuries**

We also divide time into periods of one hundred years called centuries. The first year of each century is year 1 of that century and the last year is year 100. The last year of the twentieth century was 2000 and the first year of the new century was 2001. To help you recognise the century that a particular year falls in, add 1 to the number that the year begins with. For example, 1347 is in the fourteenth century. The exception to this rule is the last year of each century which will begin with the same number as the century it is in. For example, the year 1900 was the last year of the nineteenth century.

**Activities**

**Understand**

1. Why is chronological order important?
2. Match each term describing time in column A with its correct meaning in column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>decade</td>
<td>a period of 1000 years</td>
</tr>
<tr>
<td>era</td>
<td>people born in the same general period of time</td>
</tr>
<tr>
<td>generation</td>
<td>period of 365–6 days divided into 12 months</td>
</tr>
<tr>
<td>millennium</td>
<td>period of time linked to specific dates or to some special characteristic</td>
</tr>
<tr>
<td>year</td>
<td>a 10-year period</td>
</tr>
</tbody>
</table>

3. Draw a timeline and plot each of the following events at the appropriate place on the timeline.

- Pyramids built in Egypt: 2500 BCE
- Columbus discovers America: 1492 CE
- Shang dynasty of China: 1500 BCE
- Founding of Rome: 753 BCE

**Think**

4. In which century did each of these events occur?
   (a) The Commonwealth Games (2006)
   (b) The eruption of Mt Vesuvius (79)
   (c) The Battle of Hastings (1066)

5. Name one date in each of the following centuries:
   (a) fourth century CE
   (b) ninth century CE
   (c) sixth century BCE
   (d) eleventh century CE.

**Worksheets**

1.1 Create a timeline
DETECTIVE WORK — USING SOURCES

History is detective work. Our word ‘history’ comes from the Greek word *historia*, which meant both ‘learning by enquiry’ and ‘narrative’ or story. History, like detective work, is about asking questions, collecting information and searching for clues that may produce evidence. Detectives and historians try to find out what happened in the past. The detective’s clues may be a fingerprint or a weapon. The historian’s clues are those that provide information about people’s experiences of the past — a diary, a painting, an official document, a toy and so on.

Historians’ clues are called sources. Historians use a variety of sources in their attempt to accurately reconstruct the past. Sources can provide information about the person, event, society or problem that is under investigation. From skeletons, for example, historians can work out how tall people were in the past and also the diseases they had.

**SOURCES**

There are two main types of sources: **primary sources** and **secondary sources**. A primary source is one created during the period the historian is investigating. For example, if a historian was investigating textbooks of the early twenty-first century, then this textbook would be a primary source because that is when it was written.

A secondary source is one created after the period the historian is investigating. For example, if a historian was investigating crime and punishment between the years 500 and 1500, then this textbook would be a secondary source because the information it contains on that topic was written after that period of history.

Secondary sources contain information taken from both written and non-written sources. A source can be either primary or secondary depending on the topic under investigation.

There is one exception to this general rule. If someone lives through a particular historic event and only records this experience years later, then the source created is still treated as a primary source. For example, an athlete who participated in Melbourne’s Commonwealth Games in 2006 may write a memoir of that event ten years later. A historian in the year 3000 who is investigating the 2006 Commonwealth Games would treat that memoir as a primary source, even though it was not written in the exact period that the historian is studying.

Photographs showing examples of sources: (a) the remains of a body from ancient times, (b) a wall painting about 3400 years old from the tomb of an Egyptian pharaoh.
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A photograph showing the remains of the ziggurat at Ur in ancient Sumer. Ziggurats were pyramid-shaped buildings with stepped sides, made of sun-baked bricks. They are a primary source for a historian studying ziggurats in ancient Sumer.

A modern artist’s impression of what a ziggurat might have looked like. It would be a secondary source for a historian studying ancient ziggurats and a primary source for a historian studying textbook illustrations in the early twenty-first century.

### HISTORICAL QUESTIONS

Historians usually begin their investigations by trying to identify what is already known about a particular event, person or period of time and what still remains to be known. They ask the typical ‘w’ questions that detectives ask:
- **What** happened?
- **Where** did it happen?
- **Why** did it happen?
- **When** did it happen?
- **How** did it happen?
- **Who** did it?

Next, a historian will try to formulate ideas that might answer these questions. Such an idea is called a **hypothesis**. A historian constantly tests a hypothesis to see if it fits the evidence that is emerging from the sources. Historians may change their hypotheses several times as they strive to develop an explanation of the past that matches the evidence they have gathered from the sources.

### FACT, FICTION AND OPINION

When you want to use a source as evidence, it is important to decide whether:
- it expresses **facts** — what really happened; the truth; the reality of an event, situation or person
- it is someone’s **opinion** — a personal viewpoint
- the information it provides is **fiction** — information that someone has made up.

The person who created the source is like a witness in a courtroom. The historian must check that the witness is telling the truth. However, the advantage of questioning a witness in a courtroom is that the witness is alive and can respond. The historian’s witnesses may have been dead for hundreds of years!

Sources can often create problems of accuracy; for example:
- The witness who was ‘on the spot’ for an event may not have clearly seen what happened.
- There may be a number of witnesses, each giving a different version of the same event.
- Some witnesses may only be repeating what others have told them.
- A witness from the past may lie intentionally.
- Witnesses may have some **prejudice** against a person or group. They may not be aware of it, but it might affect the way they tell what happened.

Leaving out important information can create an impression that is quite different from the reality.

### BEWARE . . .

Some people think that a primary source must always be better than a secondary source because it was created ‘at the time’. A historian knows that this is not necessarily true. The person who created the source may have lied, wanted to impress other people or may not have known much about what was going on. Secondary sources can have some advantages. For example, the author of a written secondary source may be very well informed and have no reasons for lying about what happened.

There is no rule about which type of source — primary or secondary — is better. It depends on what you are looking for and whether you understand who created the source and why.
Historians find out as much as they can about witnesses and their reasons for creating a source before trusting the information that the source provides. Historians both search for facts and develop opinions about the past. They state their conclusions and they use historical facts to support them.

**CAUSE AND EFFECT**

Historians are also interested in sources that help them work out links between one event and another. They like to try to find how a certain event or action might have been a cause of another event or action. This means that historians are also looking to find the effect or results of something that happened in the past.

**SOURCES, EVIDENCE AND INTERPRETATION**

Sources don’t speak for themselves. Historians have to ‘read between the lines’ to try to understand their full meaning and importance. This means they must understand what sources appear to be telling us, and they must detect information that is not obvious just by looking. It is also important to know if a source is complete or part of something else.

To understand the past, historians need to gather many different types of sources and find both the obvious and the ‘hidden’ evidence they contain. In doing this, historians develop an interpretation of the past and put together the evidence that supports their interpretation. This does not mean that they ignore sources and evidence that do not support their ideas. It means that they believe that the sources and evidence available provide more support for their interpretation than for any other interpretation.

Historians often argue about different interpretations of the same event or personality. Arguing about different ideas helps historians to test their ideas and to change them when someone else’s interpretation seems more acceptable.

**USEFULNESS, RELIABILITY AND PERSPECTIVE IN SOURCES**

Historians are also interested in the perspective of a source. This means thinking about what might have influenced the way the author presented and reported on a particular situation. The source someone creates could be affected by:

- what country he or she came from
- what level of society he or she belonged to; for example, upper class, middle class, lower class
- what leader or political party he or she supported
- the experiences that influenced his or her outlook on life.

Historians also think about the reliability and usefulness of a particular source. When they assess reliability they consider several factors.

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**Source 1.4.4**

An example of a reputable website for historical research (www.cityofsydney.nsw.gov.au/barani)

This is part of a government website, so it’s likely to be a trustworthy source.

It includes the facility to give feedback and contact the creators.

Information is kept up to date.

There are contributions from indigenous people who trust the site’s creators to represent them.
**Source 1.4.5** Description by Tacitus of Emperor Nero’s punishment of the Christians after the fire that destroyed much of Rome in AD 64. Tacitus (c.AD 56 to c.AD 118) was a famous historian of ancient Roman times. His writings reveal his criticism of the leadership of many Roman emperors.

To scotch the rumour [that he had ordered the fire] Nero fastened the guilt and inflicted the most exquisite tortures upon a group hated for their abominations, whom the populace called Christians … First, then, those who confessed membership were arrested; then, on their information, great numbers were convicted … And mockery was added to their deaths: they were covered with the skins of wild beasts and torn to death by dogs, or they were nailed to crosses and, when daylight failed, were set on fire to provide lights at night. Nero had offered his gardens for the spectacle … Hence, although they were deserving of the most extreme punishment, a feeling of pity arose as people felt that they were being sacrificed not for the public good but because of the savagery of one man.

These factors include:
- whether the source is complete or incomplete
- whether the source is biased — that is, whether or not it provides too positive or too negative a view of something
- whether the source agrees with information that people already accept about a particular topic.

When historians consider the usefulness of a source, they are thinking about how it can be used to improve our understanding of the past.

**Activities**

**Understand**
1. In what ways is history like detective work?
2. What kinds of clues does a historian look for and what is the correct name for these ‘clues’?
3. What is the difference between a source and evidence?
4. What is the difference between a primary source and a secondary source?

**Think**
5. Provide an example to show how the same source could be both primary and secondary.
6. Explain the exception to the rule about primary sources.
7. What are usually the first two stages in a historian’s investigations?
8. What are historians looking for when they ‘read between the lines’?
9. How do sources help historians to develop a particular understanding of the past?
10. What kinds of things might influence the perspective of a source creator?

**Communicate**
11. Imagine you are questioning an eyewitness to a robbery. Suggest five reasons why this person might not tell you the truth about this event.
12. In the autobiography of someone who is very famous and highly respected, what kinds of information might be emphasised? What kinds of things might the person have chosen to say very little about? What impression do you think the person would be trying to make?
13. Working in pairs, write a paragraph of about 15 lines to explain how historians use sources. In your answer, use the words ‘usefulness’, ‘reliability’ and ‘perspective’.
14. List ten different items a historian would find in your household rubbish bin during a typical week. (Avoid listing similar things.) What kinds of information could a historian gain about you and your family from these?
15. What would you need to know to fully understand source 1.4.5?
16. What interpretation of Nero might a historian come up with from using source 1.4.5 alone?
17. What questions would you ask about source 1.4.5 to test its reliability and its usefulness?

**Use ICT**
18. Find a website on a historical topic that interests you. What questions would you ask to test its usefulness? What are the answers to your questions?

**Worksheets**
1.2 Detective work and the mystery box
Much of the information we have about the past comes to us as a result of the work of archaeologists as well as from historians. Archaeologists work with the remains of earlier civilisations. They literally dig up the past to find buried objects. Some may have been buried deliberately, while others may have been buried as a result of volcanic eruptions, changing water levels, earthquakes, wars or simply the passage of time. Many cities are built on the ruins of older ones.

Archaeologists look for clues which indicate that an area is worth digging up. Clues may come from the writings of someone in the past who has described the existence of a particular town or burial site. Sometimes sites are accidentally discovered. For example, in 1992 at Hoxne in Suffolk, England, farmer Eric Lawes was using a metal detector to help his friend Peter Whatling find a lost hammer. They found the hammer but when the metal detector kept buzzing they realised they had found something more — old coins. Further investigation revealed a trunk containing nearly 15,000 gold and silver coins plus jewellery and ornaments. This buried treasure was in excellent condition and turned out to be as much as 1,500 years old. The men shared a reward of $7 million.

Satellite photographs or magnetic surveys can also provide useful information. They can show the outlines of buildings in an area that was thought to have always been uninhabited.

The development of improved diving equipment and instruments has meant that underwater investigations are also possible. The most famous of these has been the exploration work done on the Titanic, the ocean liner which sank after hitting an iceberg in 1912.

When there seems to be enough evidence that a particular area will provide worthwhile information, experts will try to gather the finances, time, people and equipment necessary to carry out as thorough an investigation as their resources allow.

As well as uncovering objects from past eras, archaeologists also investigate preserved bodies which are uncovered accidentally. Sometimes these bodies are preserved because of the nature of their environment. They might have been frozen for centuries in a remote mountain area or submerged in a bog (wet ground with soil made up mainly from decaying plant matter). Because they are so well preserved, they can provide interesting information on the beliefs, habits, work, clothing and even food of societies that existed as much as 5,000 years ago. One of the most famous of these bodies was Lindow Man, found in a bog in England in 1984. Scientific investigations showed Lindow Man to be about 2,300 years old and, as shown in source 1.5.2, much additional information was gained from the study of his body.

So far, the oldest well-preserved body that experts have investigated is the one known as Ötzi the Iceman. He died during a snowstorm in the Italian Alps about 5,300 years ago and was found by German climbers in 1991. His body had lain frozen in a glacier and was uncovered only because of another unusual storm.

An underwater photograph showing part of the wreck of the Titanic. Relics from this famous ocean liner lay undiscovered for 74 years, until equipment became available that was able to detect the wreck four kilometres under the sea.
Understand
1. Design a poster showing the types of work that archaeologists do and the skills and qualifications you think they need. Choose suitable illustrations and work individually or in pairs to create your poster.
2. List three famous archaeological finds of the twentieth century. In what ways are they different from one another?
3. Why do archaeologists often have to work very slowly and carefully?
4. What types of information do archaeologists hope to be able to learn as a result of their work?

Use sources
5. What types of information would archaeologists be able to learn from the discovery of the Titanic? Use the Internet to do some further research into the work of Robert Ballard and his team.

6. Read the information in the mind map in source 1.5.2 and answer the following questions.
(a) List the experts who were involved in the investigation.
(b) Write 5 to 8 lines on Lindow Man.
(c) List the questions you think must be answered in order to understand more about Lindow Man.

Communicate
7. Imagine you were one of the German climbers who suddenly came upon Ötzi in 1991. Write a diary entry that describes your experience and feelings on making the discovery. (You would not yet know how important the discovery would turn out to be.)

Worksheets
1.3 Fossil dig
We can gain an accurate knowledge of the past only if we know the age of the different sources being investigated. Without this information, historians and archaeologists could not be sure of the order in which different areas were settled, used and abandoned. They would not always be sure if a particular object was real or a forgery.

Accurate dating helps historians to work out links between different groups of people and societies. Sometimes written sources can help because they may record when certain events took place; for example, when a particular ruler was in power or an important discovery was made. Today we have the benefit of many scientific techniques to test the age of an object when there is no written information to help us.

**TREE-RING DATING**

Tree-ring dating, or dendrochronology, is used to tell the age of wood. It is based on the fact that the timbers of a tree develop a new ring of growth each year. Variations in the width of the rings result from differences in the weather from year to year. Rings are generally narrower when the weather has been poor and wider when it has been good. Tree rings and their widths form a pattern that is repeated on different trees of the same species. By comparing the pattern of rings found on an undated piece of timber with a pattern that has already been matched and dated, scientists can work out the age of a particular piece of timber in a specific region.

By working out the age of the timbers in a boat, fence, staircase or the interior of a church, experts can estimate the period when the particular object or building was constructed. All they need is a good cross-section sample of timber from the item they are studying.

**RADIOCARBON DATING**

Radiocarbon dating (also called carbon dating) relies on the fact that all living things absorb carbon. Most of the carbon is normal carbon 12, but a small amount is the radioactive carbon 14.

After the organism has died and no longer absorbs carbon from the atmosphere, carbon 14 gives out radiation and changes to nitrogen 14. It takes about 5730 years for half of the original carbon 14 to change to nitrogen 14, so the amount of carbon 14 left in wood, bone, charcoal or a fossil can be used like a clock to measure long periods of time.

However, it is not foolproof. The material being tested may contain remnants of older or younger materials which can distort the results. Dates can only be estimated as being plus or minus a certain number of years, and this error increases with the age of the object.

One of the most famous objects to be tested by radiocarbon dating is the Shroud of Turin. The Shroud of Turin is a piece of linen cloth which many people believe is the burial cloth used for the body of Jesus Christ. The first recorded knowledge of the cloth’s existence was in 1357 in the village of Lirey in France. The cloth appears to bear a negative image of a man who has been crucified.

In 1988, after a thorough investigation of the cloth, scientists announced that radiocarbon dating indicated it was no more than 700 years old. If their findings were correct, then the Turin Shroud was a forgery created in the 1200s. During 1993, two American microbiologists made further examinations of a sample of the shroud. They
concluded that the earlier investigations had really dated only the bacteria and fungi attached to the shroud. They stated that the shroud itself could be much older than originally thought. The mystery remains unsolved. However, it opens up the question of whether some serious mistakes may have been made with radiocarbon dating due to contamination of the object being tested. The investigations are continuing. Another team is now working on the Turin Shroud, testing the hypothesis that people as early as the 1200s may have had the necessary technical knowledge to create a negative photographic image on linen cloth.

Scientists work out whether certain bones are older or younger than others by testing the amounts of fluorine, nitrogen and uranium they contain. Older bones have more fluorine and uranium and less nitrogen than younger bones. This method cannot give an exact date for the bones and cannot be used to compare bones from different areas because the rate at which the bones change over time varies from place to place.

**Thermoluminescence dating** (or TL dating) is useful for dating stone and clay objects, such as pottery, which have at some time been heated or fired. Scientists heat the objects to very high temperatures and then measure the light energy they give off. The greater the amount of light an object gives off, the older it is. The method works on the basis that mineral crystals contained in clay and stone are released in the form of light when these objects are heated. By reheating the object and measuring the amount of light released, it is possible to say how much time has passed since the object was last heated. This method is also useful for dating stones which have been used in fireplaces.

**Activities**

**Understand**

1. Why is it important for historians and archaeologists to have an accurate knowledge of the age of the sources they use?
2. What is dendrochronology and how does it work?
3. How can carbon 14 be used to help date organic materials? Explain why scientists have to be careful when using this method.
4. What types of object can be dated using thermoluminescence dating? How does this method work?

**Use sources**

5. Study the diagram in source 1.6.1. Find a tree stump and count its rings to see if you can work out how old the tree was when it was felled. If you rub the stump with sandpaper first, the rings will show up more. Visit the website for this book and click on the Dendrochronology weblink to find out more about this technique (see ‘Weblinks’, page vii).
6. Study the image in source 1.6.2 and write a paragraph describing what you can see.

**Dig deeper**

7. Three other methods of dating are fission track dating, magnetic dating and potassium/argon dating. Use the Internet to carry out some research on each method to find out: (a) how it works, (b) the materials it can be used for, and (c) its reliability.
WHY IS CONSERVING OUR HERITAGE IMPORTANT?

CELEBRATING HERITAGE

Knowledge of the past gives us a sense of who we are — an identity. We each understand our place within a family, a community, a society, a nation and the world as a whole. We learn where our families came from and we hear of memories and traditions which have been passed down from generation to generation. The events, traditions, influences, people and experiences that have shaped our present reality are our heritage.

SAVING OUR HERITAGE

People who have been separated from their heritage regret its loss. They have lost an understanding of their culture, language and traditions and of people who have contributed to this heritage. For example, many Australian Aboriginal people suffered in this way by being separated from their parents and families during childhood and through governments taking their land. Many Jewish Australians were separated from their heritage due to the actions of the Nazi leader Adolf Hitler, who persecuted and destroyed their families in Europe in the 1930s and 1940s. People living in Cambodia, Laos and Vietnam have seen aspects of their heritage destroyed during decades of war.

Societies celebrate their culture and heritage in many different ways. These celebrations are important for strengthening their ties with the past and passing on valuable customs and traditions to their children.

The Chinese residents of Cabramatta celebrate the Festival of the Moon with a parade of dragon dancers.
In 2003, the people of Iraq saw looters steal and destroy many of the cultural treasures housed in their National Museum in Baghdad.

Nations value their heritage and mourn its loss. The Parthenon Marbles are ancient marble friezes that were originally part of the Parthenon in Athens, Greece. They have been housed in the British Museum in London for over 150 years. The Greek government has asked for the friezes to be returned, but so far neither the British government nor the British Museum’s trustees have been willing to do this.

Photograph showing some of the damage inside the National Museum in Baghdad in April 2003, during the Iraq War

All around the world, significant parts of our cultural heritage are threatened by pollution, neglect, carelessness and greed. In learning the importance of our history, we come to understand the need to protect significant remains from the past so that future generations can come to understand their heritage. This means taking action to ensure the conservation of places and objects which have played an important role in the history of a particular group or society or of the world as a whole. Conservation can involve preserving something in its existing state or restoring it to its original state by removing what has been added by time. Another approach is to adapt places and objects to a new use that still protects their cultural significance.

Source 1.7.3

Source 1.7.4

Source 1.7.5

Interior of the Great Mosque at Cordoba, Spain. Cordoba has been invaded and rebuilt by the Romans, Visigoths (AD 500–719), Arabs and modern Spaniards. The present mosque was built and extended in 786, 961 and 987, using pillars of earlier Roman and Visigoth churches. The interior is adorned with calligraphy from the Qur’an.

Activities

Think
1. What is meant by the term ‘heritage’?
2. Who/what are the influences (events, traditions, people, places, ideas, beliefs) that have shaped your personal heritage?
3. How do you think people are affected by being separated from their heritage?
4. What dangers exist if we fail to protect objects and areas that are of importance to our heritage?
5. List three ways something could be conserved.

Use sources
6. Look at sources 1.7.1 and 1.7.2. As a class, discuss how different cultures preserve their heritage in Australia today and why this is important.
7. How do sources 1.7.3 and 1.7.4 remind us of the importance of heritage?
8. How has the cultural heritage value of the Great Mosque at Cordoba (source 1.7.5) been preserved?

Dig deeper
9. Using your library or the Internet, find out more about the treasures of famous museums and identify a treasure that originally belonged to another country. Some suggestions are the British Museum in London (the Parthenon, or Elgin, Marbles), the Louvre Museum in Paris (the Wedding Feast at Cana) and the Metropolitan Museum in New York (the Cloisters).
   (a) How did the museum come to have the treasure?
   (b) What arguments could be put for or against the view that: ‘The [name of treasure] should be removed from the [name of museum] and returned to its country of origin’?
THE ROLE OF UNESCO

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) has been working for the past forty years to establish methods for protecting the world’s cultural heritage. Since 1972, 170 countries have signed its World Heritage Convention outlawing trade in objects which could be regarded as ‘treasures’ of our world heritage.

World Heritage List

The World Heritage Commission now lists 812 sites of natural and cultural importance that are worthy of conservation.

Source 1.8.1

One of the Australian sites included on the World Heritage List is the Willandra Lakes region of New South Wales. Significant archaeological remains have been discovered there.
One of the many ways you can be involved in investigating the past is by conducting a site study. A site study is an opportunity to ask and find answers to questions about an important historical or cultural place.

Every area has sites that are important to its historical and/or cultural heritage. These could include an archaeological dig, bridges, buildings, cemeteries, churches, a farm, government buildings, industrial sites, memorials, schools, a shopping precinct, streetscapes and so on. There are many more locations that might be important to your family, school, local, national or international heritage.

It is also possible to investigate a ‘virtual’ site by conducting a site study via the Internet or a CD-ROM. Virtual site studies offer the chance to ‘see’ and ‘explore’ places that you may not be able to visit in person.

The CD-ROM accompanying this textbook provides some virtual site studies for you to explore and investigate from a historian’s perspective. Some examples are shown below.

**THE VALUE OF SITE STUDIES**

**Activities**

**Design and create**

1. Create a classroom picture display of some World Heritage sites with a caption providing the name of each site and the reason for its inclusion on the World Heritage List.

**Dig deeper**

2. In 1998, the Egyptian government, funded by UNESCO, completed major renovations on the Sphinx at Giza. Scientists had found that the ancient monument had eroded more in the last 50 years than in the previous 50 centuries. Using the resources of your library or the Internet, find out why this happened and why it was important for Egypt and the world to preserve the Sphinx.

3. Carry out some research to find out which sites in Australia have been classified as World Heritage sites. What are the features that made them worthy of World Heritage listing?

**Use ICT**

4. Visit the website for this book and click on the World Heritage Sites weblink (see ‘Weblinks’, page vii). Choose a site that interests you. Use the information in its ‘brief description’ and/or its ‘justification for inscription’ to list what value this place might have as a site study.

Imagine you are the first person to find the lost city of Machu Picchu in South America and investigate its mysteries.

Investigate the stone ruins called Stonehenge in England — how and why are they there?

Explore the fascinating remains of the city of Pompeii in Italy and its people — all buried in a massive volcanic eruption in AD 79.
TEST YOUR HISTORY VOCABULARY

Match the words in column A with the definitions in column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>A reason for doing something</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Before the creation of written records</td>
</tr>
<tr>
<td>Perspective</td>
<td>A source created in the time period you are studying</td>
</tr>
<tr>
<td>Dendrochronology</td>
<td>Something that provides information about the past</td>
</tr>
<tr>
<td>Archaeologist</td>
<td>A family of rulers</td>
</tr>
<tr>
<td>Chronological order</td>
<td>Someone who digs up the remains of the past</td>
</tr>
<tr>
<td>Primary</td>
<td>An idea to be tested</td>
</tr>
<tr>
<td>Motive</td>
<td>A method of working out the age of a timber object</td>
</tr>
<tr>
<td>Prehistoric</td>
<td>From the earliest to the most recent</td>
</tr>
<tr>
<td>Dynasty</td>
<td>Something that influences someone’s viewpoint</td>
</tr>
</tbody>
</table>

Impress your teacher, family and friends by using these words in your conversation! For example, ‘That’s an interesting hypothesis, Mum, but …’.

PERSONAL TIMELINE

Construct your personal timeline by listing important events in your life. Put a year beside each event such as year of birth, change of address, births and deaths. Put these events in chronological order. To start, draw a line to scale and mark on the base years; for example, 1 cm might represent one year. Mark the events on the timeline. Now mark on the periods of your education, for example at home, kindergarten, pre-school etc. (Note: Unlike the Gregorian and Jewish calendars, which start at 1, your timeline will start at 0 — the day you were born."

BEWARE THE ANACHRONISM

A practice, event, object or person placed outside its proper time period is called an anachronism. Historians need to watch out for anachronisms as they may indicate that a source is a fake.

(a) Visit the website for this book and click on the Movie Mistakes weblink (see ‘Weblinks’, page vii). Here you’ll find examples of anachronisms in historical films.

(b) Imagine you are making a film about the building of Stonehenge (see pages 6–7). In small groups, list some types of equipment and building techniques that you would have to avoid showing in the film because they would be anachronisms.

USE YOUR KNOWLEDGE CREATIVELY

Source 1.9.1

Ötzi the Iceman’s well-preserved body was discovered in 1991.

- About 1.6 metres tall
- Very worn teeth, especially those in front
- Lungs darkened by smoke
- Thought to have died between 3365 BC and 3041 BC, based on radiocarbon dating
- Pushed-in square mark in ear lobe
- Ate both meat and grain, based on an analysis of undigested food in his stomach
- Whipworm eggs in his bowels
- Charcoal in his stomach, a product still used to settle an upset stomach
- Eight broken ribs, some of which were healing
- Forty-seven tattoo marks on his body, many where acupuncturists push needles to treat stomach upsets and arthritis. X-rays showed Ötzi suffered from arthritis of the lower spine, hips, knees and ankles.
1. Use the Internet, books and film sources to research and write a newspaper article to match the photo and information that are provided in source 1.9.1. Your article (with an eye-catching headline) should be given this year’s date and should include information on:
   • the discovery of the Iceman
   • the different types of experts who have examined his remains in the years since then
   • their hypotheses, conclusions and remaining questions
   • claims about the Iceman’s curse.

Source 1.9.2

Different strata or levels at a dig site

2. Take on the role of an archaeologist writing a report on the fossil dig shown in source 1.9.2. Remember, objects from the recent past are most likely closest to the top of the dig. The lower the layer of the dig, the older the objects are likely to be. Your report should be 15–20 lines in length and should include answers to the following questions:
   (a) How many layers are there in the diagram?
   (b) Which layer do you think is the oldest layer?
   (c) Which layer do you think is the most recent?
   (d) What objects will be found in layer 3? What does this tell you about this civilisation?
   (e) Look at layer 5. What conclusions can you draw about the people who lived at the site during this period?

Source 1.9.3

Photographs showing different types of work at archaeological digs

3. Imagine you are writing a 10–15 line paragraph to explain what the photos in source 1.9.3 show about the work of an archaeologist. Write a draft using information you already know or have learned in this chapter, and then do some research on the Internet and in book sources to gain a deeper understanding. Next, work to improve your draft and create a final copy.