

MELBOURNE WINTER MASTERPIECES

# TUTANKHAMUN

AND THE GOLDEN AGE OF THE PHARAOHS

AN EXHIBITION FROM  
**NATIONAL  
GEOGRAPHIC**



**EDUCATION KIT**

## Senior Ancient History

The following materials have been produced for Melbourne Museum by Zarwood Education to support teacher and student learning in the key themes of the exhibition.

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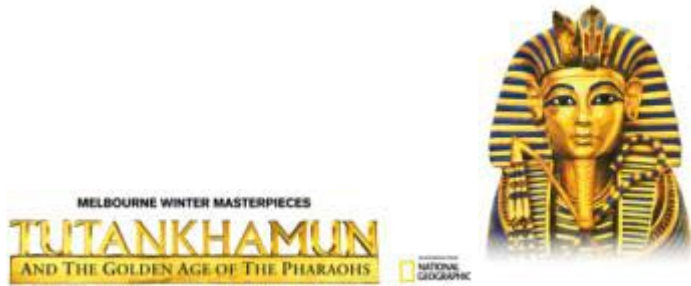
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The exhibition is organised by the National Geographic Society, Arts and Exhibitions International and IMG, with cooperation from the Egyptian Supreme Council of Antiquities

Image: Canopic Coffinette of Tutankhamun. Not the Funerary Mask.



## New South Wales Education Kit: Senior Ancient History Materials

These education materials were developed for teachers and students of Senior Ancient History subjects who are visiting the *Tutankhamun and the Golden Age of the Pharaohs* exhibition at Melbourne Museum.

### Acknowledgements

Melbourne Winter Masterpieces is a Victorian Government initiative and is exclusive to Melbourne, Australia.

This exhibition is organised by the National Geographic Society, Arts and Exhibitions International and IMG, with cooperation from the Supreme Council of Antiquities of the Egyptian Ministry of Culture.

The senior learning activities were written by Louise Zarmati and Bradley Wood of Zarwood Education, consultants for education in museums, heritage sites and libraries [www.zarwood.com.au](http://www.zarwood.com.au), in collaboration with Liz Suda, Program Coordinator, Humanities, Melbourne Museum.

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## Senior Ancient History Activities

### ***How do we know what life was like in the time of Tutankhamun?***

#### ***Note to teachers in New South Wales***

This education kit has been produced to support senior history students across Australia. It will maximise their learning through examination of the objects on display in the *Tutankhamun and the Golden Age of the Pharaohs* exhibition. The activities in the education kit invite students to explore the key themes of the exhibition, guiding them to collect the evidence required to provide a comprehensive answer to the kit's essential question. They directly relate to the NSW Senior Ancient History curriculum.

#### *Senior Ancient History*

The Stage 6 Ancient History course offers a number of in-depth studies of ancient Egypt.

#### Year 11

- Case Study 8 – *Tutankhamun's Tomb*

#### Year 12

- Personalities in their Times – Option B: *Akhenaten*
- Ancient Societies – Option B: Egypt: *Society in New Kingdom Egypt to the death of Amenhotep III*
  - Historical Periods – Option B: *New Kingdom Egypt to the death of Thutmose IV*
  - Historical Periods – Option C: *New Kingdom Egypt from Amenhotep III to the death of Ramesses II.*

Particular focus is placed on the reigns of Tutankhamun and his ancestors Amenhotep III and Akhenaten, the Amarna religious revolution, death and burial practices, trade, foreign contacts and technology.



*Balustrade: Akhenaten and Family.  
National Geographic.*

## Educational theory behind the design of learning activities

Research has shown that experiential, inquiry learning in museums has a profound impact on a student's cognitive memory and enhances learning and understanding. The social aspect of learning is also important. Students learn by investigating one or more focused inquiry questions, and by discussing their ideas with their teachers and peers in museum settings.

## Organisation of learning activities

Due to the spatial restrictions of the exhibition *Tutankhamun and the Golden Age of the Pharaohs*, students will not be permitted to bring writing materials (pen, pencils, paper) into the exhibition hall. They will be allowed to bring with them the Museum Activity Sheet that tells them what to look for in the exhibition.

For this reason learning activities for senior students have been designed so that they use their skills of observation and sensory perception. Research is conducted in three stages:

**Stage 1: Pre-visit activities** – students undertake preliminary research at home or school to prepare them for their visit to Melbourne Museum;

**Stage 2: Exhibition activities** – students use their skills of observation and analysis to gather information from artefacts they view in the exhibition;

**Stage 3: Post-visit activities** – students synthesise their observations and undertake further research in order to answer historical questions and present their findings to the class.

## Suggestions for class organisation

1. There are ten different topics in the learning activities (see below).
2. The teacher divides the class into groups of 2–3 students.
3. The teacher allocates each topic to a different group, so that each group becomes 'the expert' on their topic, e.g. materials and technology, hieroglyphs, jewellery, etc.
4. Students gather information on their topic and present their findings to the whole group.



	<b>Exhibition topics</b>	<b>Names of students in group</b>
1	Materials, Technology and Trade	
2	Art for Aten's Sake	
3	Religion and Revolution	
4	Animals in Ancient Egypt	
5	Egyptomania!	
6	Hieroglyphs	
7	Journey to the Afterlife	
8	Tutankhamun's Family Connections	
9	The Mysterious Life and Death of Tutankhamun	
10	Ethics – The Study and Display of Human Remains	

Encourage your students to carefully examine the artefacts indicated, and ask themselves and each other these questions:

- From what material(s) was it made?
- How was it made? Was it made by hand? Was it mass produced? Was it made as a whole piece or as separate parts that were assembled?
- Does it show any evidence of usage or 'wear and tear'?
- What was the function of the artefact?
- Did it function on its own or was it part of something else?
- Who made the artefact? Who used it?
- Has the artefact been reconstructed for the purposes of the museum display? How do you know?
- How has the artefact been interpreted and presented in the museum display?

## **Topic 1: Materials, technology and trade**

### **Teacher's guide**

#### **Pre-visit learning activities**

- Consider and discuss: What do artefacts in the exhibition tell us about materials, technology and trade during the New Kingdom period?
- Read information about ancient Egyptian materials and technology.
- Examine primary sources and discuss questions.

#### **Exhibition learning activities**

- Select three objects in the exhibition for close examination.
- Think about and discuss questions about each artefact.

#### **Post-visit learning activities**

- Complete 'Artefact Classification Table'.
- Complete the 'Artefact Analysis Worksheet'.
- *Extension* – Research the Uluburun shipwreck.



### Read this information before you visit the exhibition.

The items displayed in this exhibition are not just treasure, but are also examples of the technology utilised by the ancient Egyptians in the New Kingdom period. Though their tools, techniques and even materials appear basic by our standards, ancient Egypt was one of the most technologically advanced societies of its era. Tutankhamun lived and died over 3,300 years ago, at a time when glass was rare enough to be considered and used as a precious stone. Iron was hardly known, and workmen's tools were usually made of stone, copper or bronze. Although ancient Egyptian craftsmen used what we think of as simple tools, they still produced sculpture, jewellery, furniture and stone vessels of great beauty, complexity and symbolism.

The material from which the artefacts are made can be categorised into three groups:

- *Organic* – material which is the product of a living thing, including leather, ivory and wood.
- *Inorganic* – mineral material formed by natural processes, including stone and metal.
- *Artificial* – material produced by humans, including Egyptian faience and glass.

Some objects in the exhibition contain material from all three groups.

**GOLD** was valuable not because of scarcity (silver was even less common), but because of its qualities. It was seen to have the same colour as the sun and to share its indestructible qualities. The flesh of the gods was believed to be made of gold. In practical terms the advantages of gold are that it can be beaten into thin sheets without hardening or cracking, and pieces can be joined by simply hammering sheets together. Gold came from what is now Sudan and Ethiopia (Kush), mines in the Eastern Desert and Nubia. Once mined or panned, the gold was melted into nugget- or ring-shaped ingots for transport. It was used as a diplomatic gift, and also for decorative and religious items. Gold objects were mostly made by hammering, shaping and cutting. Applying thin gold sheets as a decorative surface to objects (gilding) was also common. Casting was done rarely, possibly because it tended to be wasteful of the precious metal. One of the difficulties of working with gold would have been that the melting point of the workers' bronze tongs (about 1030 degrees Celsius) was lower than the melting point of gold (1063 degrees Celsius).



*Ceremonial dagger and sheath of solid gold. Found within the linen bandages wrapping Tutankhamun's body. National Geographic.*

**EGYPTIAN FAIENCE** is a non-clay ceramic and probably the first synthetic or artificial material produced by humans. Faience was treated like a highly valued gemstone. It reached its height of manufacture and use in the Eighteenth Dynasty, especially in the Amarna period. It was made of finely crushed quartz or sand with small amounts of lime and natron (a natural salt containing sodium carbonate) or plant ash. Mixed with water this forms the body, with the lime and natron loosely cementing the sand together. The paste could then be shaped by hand or pressed into a clay mould and fired in an oven. It could be glazed afterwards, or the glaze may have been an additive in the paste that came to the surface when it was fired. Some experts think that the discovery of faience was one of the stages in the development of true glass.

**IVORY AND BONE** The major types of ivory used in Egypt were elephant and hippopotamus tusk. Hippopotamuses could be hunted locally, but elephant tusks had to be imported, most probably from elsewhere in Africa. The Eighteenth Dynasty was a period when ivory use increased. Substantial solid ivory objects were produced, with rich finds of this nature from Tutankhamun's tomb. More common, however, were objects decorated with small sections of ivory as a veneer or an inlay. Ivory is a soft material, and the tools used to work it would be the same as those used in woodworking. Inlays were glued on and larger pieces were pinned into place. They were sometimes coloured by staining.



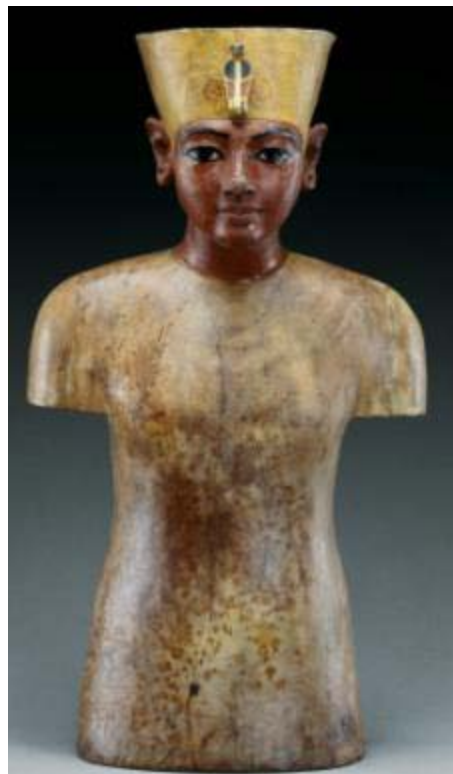
*Cosmetic jar made of calcite portraying Tutankhamun as a lion victorious over his enemies. Found in the burial chamber of Tutankhamun's tomb. National Geographic.*

**STONE** Among the many kinds of stone available, their range of qualities led to their being used for different purposes. Semi-precious stones are rare stones valued for their beauty and colour, which are used in jewellery and inlays. Rock types such as granite and sandstone are used for statues, while calcite or alabaster makes beautiful translucent containers. Many types of rock and stone could be quarried in Egypt, but some – like the valuable blue lapis lazuli – were sourced elsewhere. Wooden hammers, hammer stones and chisels of copper or bronze were used to shape the stone.



**WOOD** Woods suitable for carving and building was scarce in ancient Egypt, yet the ancient Egyptians managed to obtain and use large quantities from a range of species. The dry climate has helped preserve many wooden artefacts and these, together with the evidence on wall paintings, show that wood was used for a large variety of furniture, sculpture, weapons and tools, as well as a building material. Different woods were valued for their specific properties. Red cedar was desired for its colour and scent, and black ebony for decorative effects. The tools used to work wood included saws for cutting, adzes for shaping timber, bow drills to make holes, and chisels and hammers of wood or padded stone. Wood could also be bent by first steaming it, or carved on a simple turning device called a lathe.

**GLASS** In ancient Egypt glass was not the everyday item it is now. It was considered a type of synthetic precious stone, suitable for use in decorating royal headdresses, statuettes, jewellery and even the royal symbols of power – the crook and flail. Egyptian glass was too thick to pour into moulds, so large pieces of glass, like Tutankhamun's headrest in the room 'Daily Life in Tutankhamun's World', were probably made from powdered glass heated in a cast. Once cooled the finer details were carved into the surface. Glass vessels in the Eighteenth Dynasty were not blown, but probably made by rolling a clay core in powdered glass, then melting the glass and removing the core. Sticks of decorative glass could also be melted onto the vessel.



*Life-size wooden model of head and torso of Tutankhamun found in antechamber of his tomb. National Geographic.*

**Print off this sheet and take it with you into the exhibition.**

1. Select three artefacts in the exhibition to examine closely:
  - One made of organic material – e.g. leather, ivory, wood
  - One made of inorganic material – e.g. stone, metal
  - One made of artificial material – e.g. Egyptian faience, glass

*Hints: If an object is a mix of these materials, choose the dominant component. The last room of the exhibition does not contain any organic material (ivory, leather, wood, etc.) so choose your object for this category before you reach this point.*

### **Questions to consider**

2. Think about and discuss the following questions as you examine each artefact:
  - What is it made of?
  - How was it made?
  - Do you see any other materials in the final product?
  - What was its function?
  - Did it have any special social, cultural or economic significance?
  - Is the item unique to ancient Egypt? Is there an equivalent item in use nowadays? What are the differences and similarities?

### **Hints to help you find artefacts:**

- Wooden objects can be found in most rooms, but the last wooden objects are in the room 'Tutankhamun, King of Egypt'.
- If you are choosing a metal object you will find copper, silver and gold in the last three rooms: 'Tutankhamun, King of Egypt', 'Causing his Name to Live' and 'The Tomb'.
- Stone objects are in all rooms except the last two rooms.
- Good examples of objects made of faience are found up to and including the room 'Daily Life in Tutankhamun's World'.
- A number of beautiful ivory objects are displayed in the room 'Daily Life in Tutankhamun's World'.



**Complete these activities after your visit.**

1. Complete the Artefact Classification Table to help you examine the evidence.

Organic material	Inorganic material	Artificial material
<i>Name of artefact</i>	<i>Name of artefact</i>	<i>Name of artefact</i>
<i>Type of material</i>	<i>Type of material</i>	<i>Type of material</i>
<i>Sketch of artefact</i>	<i>Sketch of artefact</i>	<i>Sketch of artefact</i>



**Complete these activities *after* your visit.**

2. Choose one artefact you saw in the exhibition and fill in this Artefact Analysis Worksheet.

1	What type of artefact is it?	
2	From what material(s) was it made?	
3	Describe the processes involved in its production.	
4	Describe the tools used to make it.	
5	Where was it found?	
6	Where was it used?	
7	Who used it?	
8	How was it used?	
9	Who made it?	
10	How many people were involved in making it?	
11	To which class of society did the producer(s) belong?	
12	Is it decorated? Why/Why not?	
13	Does it have symbolic meaning? Explain.	
14	Was it an item of trade? How do you know?	
15	Why was it made?	



### 3. Extension

- Research the Uluburun shipwreck which was found off Turkey's coast in 1982. It was dated to the Fourteenth Century BCE. Some scholars think it can be dated to the Amarna period because of its large Egyptian cargo. Start your investigation here: <http://bodrum-museum.com/museum/depts/uluburun.htm>.
- List three things the Uluburun shipwreck tells us about trade in the Mediterranean region during this period.

### References

#### Books

- Desroche-Noblecourt, C. (1977), *Tutankhamen*, New York: New York Graphic Society.
- Hodges, H. (1971), *Technology in the Ancient World*, London: Penguin Books.
- James, T.G.H. (1985), *Pharaoh's People*, Oxford: Oxford University Press.
- Nicholson, P.T., & Shaw, I. (2000), *Ancient Egyptian Materials and Technology*, Cambridge: Cambridge University Press.

#### Websites

- In-depth information on Egyptian craftsmen and their trades:  
[www.reshafim.org.il/ad/egypt/trades/index.html](http://www.reshafim.org.il/ad/egypt/trades/index.html)
- Story of the ancient Egyptian father persuading his son NOT to be a tradesman. Explore the workshops and their tools:  
[www.ancientegypt.co.uk/trade/home.html](http://www.ancientegypt.co.uk/trade/home.html)
- The first recorded industrial strike at Deir el-Medina:  
<http://australianmuseum.net.au/Artisans-of-ancient-Egypt>
- Ancient Egyptian trade:  
[www.reshafim.org.il/ad/egypt/trade](http://www.reshafim.org.il/ad/egypt/trade)



## Topic 2: Art for Aten's sake

### Teacher's guide

#### Pre-visit learning activities

- Consider and discuss: What are the defining differences between traditional Egyptian art and art of the Amarna period?
- Read information about 'art' in ancient Egypt.
- Examine primary sources.

#### Exhibition learning activities

- Examine the three artefacts in the exhibition chosen for this task.
- Think about and discuss questions about each artefact.

#### Post-visit learning activities

- Recall the three artefacts observed in the exhibition.
- Fill in the 'Table of Characteristics' to help categorise the artefacts.
- Use the comparative table to analyse characteristics of the four artefacts.
- Examine the Golden Throne of Tutankhamun and answer the question.
- *Extension* – Research the current debate on the return of the Bust of Nefertiti to Egypt.

## Art or craft?

The so-called Amarna period covers the seventeen-year reign of Akhenaten, the father of Tutankhamun. What distinguishes the Amarna period from the rest of ancient Egyptian history is not only the radical changes Akhenaten made to religion, but the changes he made to the country's art and architecture. You will find evidence of these changes in the exhibition.

Strange as it may seem, the ancient Egyptians did not have a word for what we today call 'art'. The word they used was *hmt*, (possibly pronounced 'hemet'), which means 'craft' or 'craftsmanship'. One craftsman favoured by Akhenaten was a sculptor called Bek, who inscribed on a stela (a commemorative stone slab) that he was taught his craft by Akhenaten himself. The stela of Bek and his wife may be the earliest self-portrait in history.



*Head of Amenhotep IV  
 National Geographic.*

Bek's statement indicates that Akhenaten deliberately chose to ignore many of the traditional artistic conventions associated with the old gods (such as Amun). He replaced them with his own artistic style which represented his preferred god, Aten. Akhenaten even changed the standard architecture by building roofless temples to the Aten, so that the sun could be observed throughout the day.

One of the distinguishing features of Amarna sculpture, wall reliefs and paintings is the intentional distortion of human figures, such as the huge statues of Akhenaten erected in his temple at Karnak. You will see the head of one of these colossal statues of Akhenaten in the 'Religious Revolution' room of the exhibition. Scholars have suggested that these distortions may have been intended to represent the masculine and feminine attributes of the sun god Aten rather than the real facial features and body of Akhenaten himself.

Another radical change was in the way the god Aten was represented. Instead of depicting Aten in human or animal form, Aten was shown as a round disk image of the sun whose rays reached down and touched the pharaoh and his family. Showing the royal family in relatively relaxed postures was another significant shift from the traditional, formal images of the pharaoh. During the Amarna period emotions such as affection and sorrow were shown for the first time, and nature became a prominent theme in wall painting and faience objects.

The message that Akhenaten wished to convey was the supremacy of the Aten and his personal association with the god. This would have had a profound effect on those who had served the traditional gods, such as the powerful priests of Amun. Many people would have been confused and angered by Akhenaten's revolutionary changes to their everyday religious practices, ideas and aspirations for the Afterlife.

Once Tut-ankh-*aten*, Akhenaten's nine-year-old son, became king, Amun's supporters went to great efforts to remove all traces of the Aten religion and of Akhenaten himself. As part of this return to the traditional Amun religion, Tut-ankh-*aten* changed his name to Tut-ankh-*amun*. However, traces of the Amarna style of artistic representation can still be seen in his tomb.

**Print this sheet and take it with you into the exhibition.**

Your aim is to identify the different characteristics of traditional ancient Egyptian art as compared to the Amarna style.

Locate and examine these three artefacts in the exhibition:

1. Room 'Egypt before Tutankhamun' – Statue of Thutmosis IV and his mother Tiaa
2. Room 'Traditional Religion' – Statue of Amun with Tutankhamun's features
3. Room 'Religious Revolution' – Part of balustrade depicting the Aten, and Akhenaten and his family

### **Questions to consider**

Think about and discuss the following questions as you examine each artefact:

- What are the distinguishing characteristics that make the artefact look 'traditional' or 'Amarna'?
- What are the similarities and differences between the artefacts?
- What is the subject matter of each artefact?
- What is the pose of the figure(s)?
- Are the figures interacting with each other?



**Complete these activities *after* your visit.**

1. Use the Table of Characteristics below to analyse each artefact.  
 Tick the characteristics that apply to each artefact.

Type of Artefact	Traditional Egyptian characteristics			Amarna-style characteristics		
	King – muscular and narrow-hipped	Rigid pose, not interacting	Idealised facial features	King – fleshy and wide-hipped	Relaxed, fluid pose, interacting	Distorted facial features
Statue of Thutmosis IV and his mother Tiaa. Room 'Egypt Before Tutankhamun'.						
Statue of Amun with Tutankhamun features. Room 'Traditional Religion'.						
Balustrade depicting Akhenaten and family. Room 'Religious Revolution'.						

Complete these activities *after* your visit.



*Drawing of the image on the back of Tutankhamun's Golden Throne by B. Wood.*

2. Now that you have seen examples of 'traditional' and 'Amarna' artefacts in the exhibition, examine the image above of the Golden Throne of Tutankhamun (not shown in the exhibition). Scholars believe the names of the king (cartouche) on the front of the chair have been changed from 'Tut-ankh-aten' to 'Tut-ankh-amun'. But the ancient craftsmen missed one: a cartouche on the back of the throne still says 'Tut-ankh-aten'.
  - a) Would you consider the artistic representation on the Golden Throne as 'traditional' or 'Amarna' style? Support your conclusion with evidence.
  - b) Based on the stylistic analysis of the object and the changes to the cartouches, suggest when Tutankhamun's Golden Throne was made.



### 3. Extension

- The famous bust of Nefertiti, Chief Wife of Akhenaten, was discovered in the workshop of the sculptor Thutmose at Akhetaten (Tell el-Amarna) in 1912. Since then the bust has become the focus of an international debate on the return of cultural treasures to their country of origin. Read the following websites to find out the current state of the debate:  
<http://heritage-key.com/category/tags/thutmose>  
[www.msnbc.msn.com/id/18608193/ns/technology\\_and\\_science-science/](http://www.msnbc.msn.com/id/18608193/ns/technology_and_science-science/)  
[www.youtube.com/watch?v=Y0V2RadQUN8](http://www.youtube.com/watch?v=Y0V2RadQUN8)
- In your opinion, should the bust of Nefertiti be returned to Egypt? Support your argument with evidence.

### References

#### Books

- Aldred, C. (1972), *Akhenaten, Pharaoh of Egypt*, London: Abacus, Sphere Books Ltd.
- Callender, G. (1993), *The Eye of Horus*, Melbourne: Longman Cheshire.
- Hawass, Z. (2005), *Tutankhamun and the Golden Age of the Pharaohs*, New York: National Geographic.
- Millmore, M. (2007), *Imagining Egypt*, New York: Black Dog and Leventhal Publishers.

#### Websites

- General information on Akhenaten and the Amarna period:  
[www.mnsu.edu/emuseum/prehistory/egypt/artisans/amarna\\_art.htm](http://www.mnsu.edu/emuseum/prehistory/egypt/artisans/amarna_art.htm)
- Article on Amarna art:  
[www.heptune.com/art.html](http://www.heptune.com/art.html)
- Overview of Egyptian art history:  
[www.aldokkan.com/art/art.htm](http://www.aldokkan.com/art/art.htm)
- Summary of the Amarna period:  
[www.ancientegyptonline.co.uk/amarnaart.html](http://www.ancientegyptonline.co.uk/amarnaart.html)
- The appearance of Akhenaten: Design or disease?  
[www.heptune.com/Marfans.html](http://www.heptune.com/Marfans.html)
- The Aten religion and the *Hymn to the Aten*:  
[www.osirisnet.net/docu/akhenat/e\\_akhen2.htm](http://www.osirisnet.net/docu/akhenat/e_akhen2.htm)

## Topic 3: Religion and revolution

### Teacher's guide

#### Pre-visit learning activities

- Consider and discuss: What do artefacts in the exhibition tell us about the religious changes that took place in the time of Tutankhamun?
- Read background information on the religious turmoil of the Amarna period.
- Read the *Hymn to the Aten*.

#### Exhibition learning activities

- Examine the balustrade relief from the Great Palace at Akhetaten.

#### Post-visit learning activities

- Compare the *Hymn to the Aten* to the balustrade relief.
- Identify two 'traditional' characteristics and two 'Amarna' characteristics in the balustrade relief.
- *Extension* – Develop two different theories to explain why Horemheb did not destroy Tutankhamun's tomb.

**Read this information *before* you visit the exhibition.**

### **Traditional Egyptian religion**

Before ancient Egypt became united, the people who settled along the Nile lived in smaller more independent groups. Each group worshipped its own local god or goddess in the form of an animal or an object, and developed its own mythology. Once Egypt was united, the local god of the pharaoh would become the one worshipped throughout Egypt. Whichever local god dominated, Egyptian religion was always concerned with the maintenance of divine order (*maat*) against the destruction of chaos. The purpose of temples, priests, offerings and rituals was to keep the universe stable and to maintain the continuity of the kingship by satisfying the gods. The Eighteenth Dynasty began when the southern Theban rulers defeated the northern Hyksos kings, expelled them from Egypt and reunited the Two Lands. Their victory also meant dominance for their local god Amun-Ra, a combination of the southern warrior god Amun with the northern sun god Ra.

### **Akhenaten and the Aten revolution**

The significance and influence of the Amun-Ra cult continued to grow and develop until Amenhotep IV (later Akhenaten) became king. Akhenaten was a controversial figure in ancient Egypt. His principal concern was the promotion of one of the manifestations of Ra, the sun disk, Aten. This shift to the worship of the Aten was a direct challenge to the Amun-Ra cult and soon led to conflict and unrest, especially by Amun's priests. Eventually Akhenaten decided to break completely with the old gods. His changes were radical. He shifted the capital from Thebes to a completely new site, Akhetaten, a place that 'belonged to no god'. Akhenaten then made himself the centre for the worship of the Aten. His changes to religion were revolutionary: the Aten became the universal, monotheistic (single) god, and all other Egyptian gods were banned. Akhenaten placed himself as the central link to the god: only Akhenaten and his family directly received the rays of Aten.

You can see an example of this in the exhibition. A section of relief sculpture depicts Akhenaten, his wife Nefertiti and their daughter Meritaten making offerings and receiving blessings from the Aten. Akhenaten and the royal family replaced the traditional gods. This meant that not only did Akhenaten control all religious power but also all the wealth received from offerings, a situation undoubtedly resented by the priests of Amun. When Akhenaten died in about Year 17 of his reign, it is likely the priests of Amun moved to restore the traditional gods of Egypt.

**Print this sheet and take it with you into the exhibition.**

The *Hymn to the Aten* was found inscribed in the tomb of Ay at Tell el-Amarna. Scholars believe it was composed by Akhenaten because it refers to him by name, and appears to be a prayer that includes the teachings and beliefs of the religion of Aten as Akhenaten interpreted it.

**Source A – Excerpt from *Hymn to the Aten***

You appear beautifully on the horizon of heaven,  
You living Aten, the beginning of life!  
When you are risen on the eastern horizon,  
You have filled every land with your beauty.  
You are gracious, great, glistening, and high over every land;  
Your rays encompass the lands to the limit of all that you have made;  
As you are Re, you reach to the end of them;  
(You) subdue them (for) your beloved son [Akhenaten].  
Though you are far away, your rays are on earth;  
Though you are in their faces, no one knows your going...  
  
... You are in my heart,  
And there is no other that knows you  
Other than your son Nefer-kheperu-Re Wa-en-Re [Akhenaten's throne name],  
For you have made him well-versed in your plans and in your strength...  
  
...The world came into being by your hand,  
According as you have made them.  
When you have risen they live,  
When you set they die.  
You are lifetime your own self,  
For one lives (only) through you.  
Eyes are (fixed) on beauty until you set.  
All work is laid aside when you set in the west.  
(But) when (you) rise (again),  
[Everything is] made to flourish for the king,...  
Since you did found the earth  
And raise them up for your son [Akhenaten],  
Who came forth from your body:  
  
The King of Upper and Lower Egypt, ... Ak-en-Aten, ... and the Chief Wife of the King ... Nefert-iti,  
living and youthful forever and ever.

Text modified from Pritchard, James B., ed., *The Ancient Near East: An Anthology of Texts and Pictures*, Princeton, New Jersey: Princeton University Press, 1958, pp. 226-230. Translated by John A. Wilson.

Go to the 'Religious Revolution' room. Examine the relief that formed part of a balustrade in the Great Palace at Akhetaten. It shows Akhenaten and his family worshipping and being blessed by the Aten. While observing the relief, keep in mind what you read in the *Hymn to the Aten*.

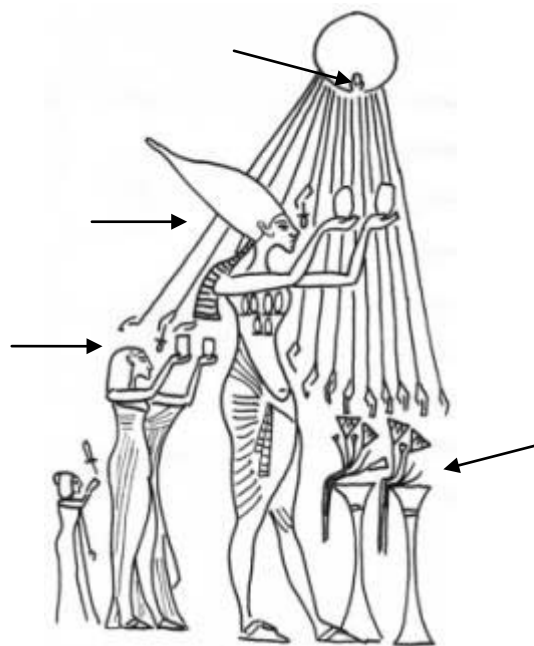
1. What elements of the *Hymn to the Aten* help you understand the meaning of the relief?
2. What parts of the relief illustrate the descriptions you have read in the *Hymn to the Aten*?

**Complete these activities *after* your visit.**

1. Re-read the *Hymn to the Aten*.
2. Find two descriptions in the *Hymn to the Aten* that match two features of Aten-worship you see in the image on the relief.

	Description of worship in <i>Hymn to the Aten</i>	Image of worship from balustrade from Akhetaten
A.		
B.		

3. In yellow, highlight two features in the balustrade relief that are the same as in 'traditional' images of Egyptian religion. Explain the meaning of these symbols in traditional Egyptian religion.
4. In green, highlight two features in the relief that are characteristic of the Amarna period. Explain the meaning of these symbols in Amarna religion. (NB: Some hints have been provided).



General outline of balustrade relief showing Akhenaten and family making offerings to and receiving blessings from the Aten.  
 Drawing by B. Wood.



## 5. EXTENSION

Develop two different theories to explain why Horemheb did not destroy Tutankhamun's tomb, even though he erased evidence of the Amarna period elsewhere in Egypt.



*Evidence of damnatio memoriae [damnation of memory]. Tutankhamun's names have been erased by chiselling the cartouches at the top right of this tablet. Drawing by B. Wood.*

## References

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### Websites

- Akhenaten and the religion of the Aten:  
[www.osirisnet.net/docu/akhenat/e\\_akhen2.htm](http://www.osirisnet.net/docu/akhenat/e_akhen2.htm)
- Text of the Restoration Stela:  
[www.angelfire.com/ne2/TiaDuat/tutstela.html](http://www.angelfire.com/ne2/TiaDuat/tutstela.html)
- Information and pictures of the remains of the city Akhetaten:  
<http://egyptsites.wordpress.com/2009/02/13/akhetaten-at-tell-el-amarna/>
- Interactive map of Akhetaten:  
[www.amarnaproject.com/pages/model\\_of\\_the\\_city/interactive\\_map.shtml](http://www.amarnaproject.com/pages/model_of_the_city/interactive_map.shtml)

## Topic 4: *Animals in Ancient Egypt*

### Teacher's guide

#### Pre-visit learning activities

- Consider and discuss: What do sources tell us about the place of animals in ancient Egyptian society?
- Read information and sources about dogs, horses and birds.

#### Exhibition learning activities

- Select and examine one artefact in the exhibition for each type of animal: dog, horse and bird.

#### Post-visit learning activities

- Complete the analysis chart on animal artefacts found in the exhibition.
- Explain why each animal was important to the ancient Egyptians.
- *Extension* – Conduct research on gods/goddesses that appear in animal form in Egyptian religion.

**Read this information *before* you visit the exhibition.**

Animals were an integral part of ancient Egyptian society. A large proportion of the hieroglyphic language was made up of animal symbols. Even Egyptian mythology is full of gods that are part animal and part human.



You will also find in this exhibition an example of a symbol of the pharaoh's power that has connections to human relations with animals, the crook. The crook was a shepherd's tool that looked like a walking stick with a large hook (used to secure a sheep's head). It symbolised the pharaoh's care and control over his flock, the people of Egypt.

Determining the relationship and importance of various animals to the ancient Egyptians takes detective work. Evidence can be destroyed, disappear through decay or theft, or be reused. This is why different kinds of sources need to be used together to create a picture of life in the past and help us understand how ancient societies worked. Sources can also give us insight into what ancient people thought.

Before you go into the exhibition, read the written and pictorial evidence presented in the next few pages. It consists of three kinds of evidence:

- written sources
- pictorial information from tomb or temple reliefs or paintings
- written sources from inscriptions, papyrus and other hieroglyphic text sources

The sources will provide evidence about three kinds of animals present in ancient Egypt: dogs, horses and birds.



*Cosmetic jar showing lions and dogs attacking prey, symbolising Tutankhamun dominating Egypt's enemies and maintaining order.  
National Geographic.*

## DOGS

The ancient Egyptian word for dog was pronounced 'iuiu', which was an imitation of the sound of a dog's howl. Dogs performed various roles in ancient Egypt, so it is probably not surprising that views of them were also varied. They were used for hunting, as police and guard dogs, and as pets. But they could also be a dangerous pack animal. There were only a few breeds of dogs at that time, which resembled our modern greyhounds, whippets and dachshunds. People who were under the authority of the pharaoh, such as captives, were likened to dogs, yet dogs were also respected and even loved. There are instances of their names being found on their leather collars and also of their owners taking great care with their burial.

*The names of dogs that have been found on stelae, collars and inscriptions include: 'She of the City', 'Black', 'Ebony', 'Good Herdsman', 'Reliable', 'Brave One', 'North Wind', 'Antelope', 'With Pointed Ears' and 'Lord'.*

- Look at depictions of dogs and information on the website below:  
[www.touregypt.net/featurestories/dogs.htm](http://www.touregypt.net/featurestories/dogs.htm)

## HORSES

Horses were introduced to Egypt sometime around 1700 BCE, when they were used in warfare between the Theban Seventeenth Dynasty and the Hyksos. Warfare was revolutionised by using horses to pull light, two-wheeled chariots for speedy and manoeuvrable attacks on an enemy. Horses were kept exclusively by pharaohs and the wealthy, to be used for war, hunting and personal transport. The quality for which they were most valued was speed, but unlike the ancient Romans, the Egyptians did not race chariots; saddles and stirrups would not be invented for thousands of years and even bareback riding was rare. The horses themselves were quite small by today's standards (about 1.35m high) and largely obtained by importing or capturing them from neighbouring countries. In Akhetaten (Tell el-Amarna), Akhenaten kept stables for around 200 horses. Chariots with evidence of usage were found in the antechamber of Tutankhamun's tomb.

*Amenophis II 'adored horses and delighted in them. He was tenacious in working them, one who knew their nature and was conversant with their training, having close acquaintance with their disposition'.*

From an Eighteenth Dynasty stela found between the paws of the Sphinx at Giza.

- Look at depictions of horses and information on the website below:  
[www.reshafim.org.il/ad/egypt/timelines/topics/domesticated\\_animals.htm](http://www.reshafim.org.il/ad/egypt/timelines/topics/domesticated_animals.htm).

## BIRDS

In ancient Egypt birds were hunted for feathers, eggs and food. Thousands of wild birds such as ducks, geese and cranes would migrate in winter from cold northern Europe to Egyptian fields and the reed beds of the Nile delta. Here they would be trapped in nets, and nobles would hunt them for sport with throw sticks. Once caught, the birds would be sent to market, or alternatively kept and fattened for offerings in the temples or for the tables of the nobility. The feathers of many birds were used to stuff cushions, and those of the ostrich were especially desirable for use in fans. Tutankhamun is shown hunting ostriches at Heliopolis. Birds were also valued for their beauty and song. At Akhetaten (Tell el-Amarna), Akhenaten built a courtyard pond to contain a variety of waterbirds that could be observed from a window.

*'Total darkness, the heavenly waters (or marshes) of the gods, is the place from which the birds come... These birds have human faces and are bird-shaped. One speaks to the other with the speech of men. Now after they come to eat herbage and feed in Egypt, they alight under the bright rays of the sky. They appear in their bird forms.'*

From *The Book of Nut, Cenotaph of Seti I*, Nineteenth Dynasty, cited in Clagett, M. (1995). *Ancient Egyptian Science Volume II*. Philadelphia: American Philosophical Society.

- Look at depictions of bird hunting and find other bird-related information on the website below:  
[www.reshafim.org.il/ad/egypt/timelines/topics/fishing\\_and\\_hunting.htm](http://www.reshafim.org.il/ad/egypt/timelines/topics/fishing_and_hunting.htm).

**Print this sheet and take it with you into the exhibition.**

1. Find one artefact in the exhibition that represents each of these categories of animals: dog, horse, bird (three artefacts in total).

<b>Artefact associated with animal</b>
Dog – Look for something worn by a dog.
Horse – Look for the image of a chariot on a golden artefact.
Bird – Gods and goddesses can appear in animal forms.

2. While you are examining the artefact, consider:

- How was the artefact used?
- Who would have used it?
- What is its connection to the animal?
- What was the function of the animal in ancient Egyptian society?
- Does the artefact have a practical or symbolic meaning, or both?
- What message were ancient Egyptians conveying about the animal?



**Complete the activity *after* your visit.**

1. Fill in the analysis chart below.

Artefact associated with animal	Function and meaning of artefact
Dog – Look for something worn by a dog.	
Horse – Look for the image of a chariot on a golden artefact.	
Bird – Gods and goddesses can appear in animal forms.	

2. Explain why each of each of these three animals was important to the ancient Egyptians. (Include their practical, symbolic, religious and even magical functions).





### 3. Extension

- Many gods and goddesses appear in animal form in Egyptian religion. Conduct research on these gods and goddesses. Describe their animal form and explain their role in both the mythology and daily life of the ancient Egyptians:
  - Hathor
  - Bast
  - Sekhmet
  - Sobek

### References

#### Books

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- Kees, H. (1977), *Ancient Egypt. A Cultural Topography*, Chicago and London: University of Chicago Press.

#### Websites

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[www.thekeep.org/~kunoichi/kunoichi/themestream/egypt\\_animals.html](http://www.thekeep.org/~kunoichi/kunoichi/themestream/egypt_animals.html)
- The dogs of ancient Egypt:  
[www.touregypt.net/featurestories/dogs.htm](http://www.touregypt.net/featurestories/dogs.htm)
- Animals divine, wild, domestic and imaginary:  
[www.reshafim.org.il/ad/egypt/bestiary/index.html](http://www.reshafim.org.il/ad/egypt/bestiary/index.html)
- Farmed and domesticated animals (depictions and information on horses):  
[www.reshafim.org.il/ad/egypt/timelines/topics/domesticated\\_animals.htm](http://www.reshafim.org.il/ad/egypt/timelines/topics/domesticated_animals.htm)
- Fishing, hunting and fowling (fowling depicted in reliefs, paintings and writings of ancient Egypt):  
[www.reshafim.org.il/ad/egypt/timelines/topics/fishing\\_and\\_hunting.htm](http://www.reshafim.org.il/ad/egypt/timelines/topics/fishing_and_hunting.htm)

## **Topic 5: Egyptomania!**

### **Teacher's guide**

#### **Pre-visit learning activities**

- Consider: What has been the impact of ancient Egypt on popular culture in the modern world?
- Read general information about 'Egyptomania'.

#### **Exhibition learning activities**

- Find and examine artefacts from the tomb of Tutankhamun that have influenced modern designers.

#### **Post-visit learning activities**

- Use design elements in the artefacts from the tomb of Tutankhamun to create your own designs.
- Conduct research on Hollywood movies inspired by ancient Egypt.
- *Extension* – Find out the true story behind the so-called 'Curse of Tutankhamun'.

**Read this information *before* you visit the exhibition.**

Shortly after Carter and Carnarvon announced their discovery of the tomb of Tutankhamun in November 1922, a wave of interest in all things Egyptian swept through Europe and America. During the 1920s and 1930s many famous artists and artisans were inspired to produce Egyptian-style jewellery, furniture, fashion, painting, sculpture, architecture, music and eventually movies – such as the 1932 Boris Karloff classic, *The Mummy*.

But this was not the first time ancient Egyptian culture had influenced the modern world. When Napoleon occupied Egypt from 1798 until 1801 he was accompanied by some of France's leading scientists. They undertook investigations into natural history, archaeology, geography, technology, weights and measures, medicine and many other aspects of ancient Egyptian culture and environment. The results were made available in the monumental publication *Description de l'Égypte* between 1809 and 1829.



*From Description de l'Égypte, France,  
Commission des Monuments d'Égypte, Paris, 1809-1829.  
National Geographic.*

## Egyptomania during the Victorian period

'Egyptian style' became popular during the Victorian period in England. An example is the mausoleum commissioned by the eccentric 'Black Jack' Needham, the 2nd Earl of Kilmorey. The monument was built in 1854 for his mistress, Priscilla Hoste. A noted Victorian architect of his time, Henry Edward Kendall was employed to design the mausoleum in fashionable Egyptian Revival style. His design was derived from an illustration in *Description de l'Égypte*, which showed the shrine of an Egyptian temple. You can find out more about this and other Egyptian-style architectural pieces in this *Heritage Key* video:

<http://heritage-key.com/blogs/sean-williams/awil-video-series-egyptomania-london>.

'Egyptomania' continues to influence popular culture today, largely because information and images about ancient Egyptian culture are more widely accessible through the Internet. One of the most extraordinary examples of Egyptian-influenced architecture is the Luxor Hotel, Las Vegas, Nevada, which boasts a replica pyramid and sphinx. You can find out more about the hotel here: <http://lasvegasfamilytravel.com/Las-Vegas-Family-Hotels-Luxor-Hotel.html>.

The Egyptian Cultural Heritage Organisation (ECHO) is aiming to compile the largest Egyptomania encyclopedia ever written, in order to understand more fully how wide an influence the ancient Egyptians have on the world. ECHO is calling for people to send photos and information to [www.e-c-h-o.org/egyptomania.htm](http://www.e-c-h-o.org/egyptomania.htm).



Cosmetic container by Elizabeth Arden, 1970s. Photo: B.Wood.



## Ancient Egypt Goes To Hollywood

One of the first Hollywood 'epic' movies to be inspired by the discovery of the tomb of Tutankhamun was *The Ten Commandments*, made in 1923 and directed by Cecil B. DeMille. The first part is set in Egypt and tells the story of the Exodus of the Jewish people from Egypt to the Promised Land – but the scenes were filmed on a beach in California where sand dunes provided an Egyptian-looking desert. After filming was completed, the massive sets of temple facades, pharaoh statues and sphinxes were dismantled and buried in the sand. The remains of the sets were rediscovered in 1983, and in 1990 'DeMille's Lost City' was excavated by archaeologists.

Another famous Egyptian-inspired movie was made by Universal Studios in 1932. *The Mummy*, starring Boris Karloff, tells the story of archaeologists who discover a 3000-year-old mummy in Egypt. The mummy comes to life, kills the archaeologists and attempts to restore life to his former love, an Egyptian princess. Make-up artist Jack Pierce studied photos of the mummy of Seti I to design the costume and makeup for the mummy Imhotep. The 1999 movie *The Mummy* is based on the same plot. Almost one hundred years after the discovery of Tutankhamun's tomb, the mummy's curse persists as an urban myth, largely because it is still being told in Hollywood movies.

You may also be familiar with the award-winning cartoon character, *Tutenstein*, a mischievous nine-year-old boy mummy who is struck by lightning and brought back to life in a modern-day museum. Unlike many other movies and television programs set in ancient Egypt, *Tutenstein* has won the approval of teachers and academics because of its historical accuracy, especially regarding ancient Egyptian mythology.

Use books and the Internet to find out about other movies that feature ancient Egypt, mummies, pharaohs or 'the mummy's curse' as their subject matter. 'The Ancient Egypt Film Site' is a good place to start: [www.ancientegyptfilmsite.nl](http://www.ancientegyptfilmsite.nl).

### See also:

- The trailer of Boris Karloff in *The Mummy* at [www.youtube.com/watch?v=Ms0qwzX\\_AFI](http://www.youtube.com/watch?v=Ms0qwzX_AFI).
- Tutenstein episodes at [www.youtube.com/results?search\\_query=tutenstein&aq=f](http://www.youtube.com/results?search_query=tutenstein&aq=f).

## Your task when you visit the exhibition

1. Find and examine artefacts from the tomb of Tutankhamun which have influenced modern designers.
2. Try to remember the details of the artefacts, such as shapes, symbols and colours so you can use them to create your own designs back in the classroom.

## Complete these activities *after* your visit.

Choose one of these activities and create your own Egyptian-inspired design. You may need to do further research in books and on the Internet to help you with your ideas.

For example, this website might help you select colour schemes:

[www.colourlovers.com/blog/2010/01/20/egyptian-color-symbolism](http://www.colourlovers.com/blog/2010/01/20/egyptian-color-symbolism)

1. Design the exterior of a house which makes use of the motifs and imagery you observed from artefacts in the museum.
2. Design the interior of one room which celebrates Egyptian style, based on what you have seen in the exhibition. Consider colour symbolism, motifs and imagery.
3. Create a costume for the lead male and female actors playing in a movie set in ancient Egypt. Specify what genre the movie is, e.g. action, thriller or comedy. Carefully consider the materials you would use for costumes; ensure they would allow plenty of mobility for the actors.
4. Create your own design for a piece of jewellery or furniture based on design elements you have seen in artefacts from the exhibition.

### 3. Extension

- Read Sources A, B and C about the mummy's curse.

#### **SOURCE A**

'Death Shall Come on Swift Wings to Him Who Disturbs the Peace of the King.'

Curse said to be written on the outside of Tutankhamun's tomb.

#### **SOURCE B**

'Where knowledge based on evidence ends, it may be said, as a general rule, that mystery begins. Of this the investigator is conscious in whatever direction his studies may lead him. Much must remain dark and obscure in the life of the ancient Egyptians, partly because the main idea behind the cults by which they are revealed to us, was to make clear to the living that which followed after death. The sentiment of the Egyptologist, however, is not one of fear, but of respect and awe. It is entirely opposed to the foolish superstitions which are far too prevalent among emotional people in search of "psychic" excitement.'

Preface to *The Tomb of Tutankhamun*, Vol. 2, by Howard Carter, 1927.

#### **SOURCE C**

In his book *Akhenaten: History, Fantasy and Ancient Egypt* (2003), British scholar Dr Dominic Montserrat claimed he had solved the mystery of the mummy's curse:

'My research has not only confirmed that there is no ancient Egyptian origin of the mummy's-curse concept, but, more importantly, it also reveals that it didn't originate in the 1923 press publicity about the discovery of Tutankhamun's tomb, either.'

- Conduct your own research to discover the true story behind the so-called 'Curse of Tutankhamun'.



## References

### Books

- Cary, J, & Kobal. J. (1974), *Spectacular! The Story of Epic Films*, New Jersey: Castle Books.
- Colla, E. (2007), *Conflicted Antiquities: Egyptology, Egyptomania, Egyptian Modernity*, Durham: Duke University Press.
- Montserrat, D. (2003), *Akhenaten: History, Fantasy and Ancient Egypt*, London: Routledge.

### Websites

- AWiL Video Series: Egyptomania in London:  
<http://heritage-key.com/blogs/sean-williams/awil-video-series-egyptomania-london>
- Kilmorey Mausoleum in Twickenham, West London:  
<http://heritage-key.com/site/kilmorey-mausoleum>
- The Black Cat Factory, London:  
<http://heritage-key.com/site/greater-london-house-black-cat-factory>

## Topic 6: Hieroglyphs

### Teacher's guide

#### Pre-visit learning activities

- Consider and discuss: What do hieroglyphs tell us about the beliefs and values of ancient Egyptian society?
- Read background information sheets on the origin and meaning of hieroglyphs.
- Learn to recognise Tutankhamun's birth name in hieroglyphs.
- Research the development and meaning of the hieroglyphic symbols 'shen' and 'ankh'.

#### Exhibition learning activities

- Find as many examples of Tutankhamun's name in the exhibition as possible.
- Find one object in the exhibition that depicts each of the symbols 'shen' and 'ankh'.
- Discuss the function and meaning of each artefact chosen to represent 'shen' and 'ankh'.

#### Post-visit learning activities

- Recall the three artefacts observed in the exhibition that represent 'shen' and 'ankh'.
- Write descriptions or find an image of each artefact.
- Analyse the details of the artefacts using the questions.
- *Extension* – Research information about the artefacts and symbols using recommended websites.

**Read this information *before* you visit the exhibition.**

### **Origins of hieroglyphic writing**

Hieroglyphs are one of the most ancient forms of writing. The earliest examples appear around 3300 BCE and began as a pictorial means of communicating simple ideas. Hieroglyphs could be written horizontally in lines or vertically in columns. Sometimes they were written from right to left but were mostly written from left to right. Unlike our writing – which has a strict order of letters that determines meaning and understanding – hieroglyphic order could be slightly rearranged (e.g. for aesthetic reasons) and still be understood. The direction of writing is indicated by the human or animal figures in the script, which always face towards the beginning of the text.

Although it took a great deal of effort to inscribe a text in hieroglyphs, the ancient Egyptians continued to use them for thousands of years with little change. This was probably because of the beauty of the writing and its association with religion, magic and worship.


### **Meaning and power of hieroglyphs**

‘Hieroglyph’ is a Greek word meaning ‘sacred carved symbol’, but the Egyptians called their script the ‘divine words’. They thought hieroglyphs were more than representational; they believed they also had magical powers and used them to inscribe ritual, mythological and other texts in temples, on tombs and on sculpture. For less formal, everyday communication they used a simpler form of writing called ‘hieratic script’.

This belief in the power of the word was reflected in many of the myths of the ancient Egyptians. One myth, written on a slab of stone called the Shabaquo (or Shabaka) Stone from the Twenty-Fifth Dynasty, describes how the god Ptah created all things by speaking their names. The ancient Egyptians believed that the name was the essence of a person or thing. The simple act of speaking the name ensured that the person was ‘given life’ in the Afterlife.

This was the reason that the names and titles of the pharaohs were repeated in hieroglyphs in tombs and temples. This ensured that the dead would live on in eternity because their names were known and repeated. The destruction of a person’s name was a dreadful punishment because this also destroyed their existence in the Afterlife. Historians call this *damnatio memoriae* (a Latin term meaning ‘damnation of memory’). This explains why the name of Akhenaten was systematically destroyed after his death: so that his name would not be spoken and he would be damned to oblivion.

## Names of the king

When a king came to the throne he had five names that determined his identity and kingship. Three were royal titles, and two were names, known as the prenomen and the nomen. They were enclosed in *cartouches*<sup>1</sup> or an elongated version of a 'shen' ring . These rounded rectangles with protective powers were introduced in the Eleventh Dynasty and symbolised the pharaoh encircling and protecting his people. You can see an example of the shen hieroglyph on a wooden box in Room 9, 'Daily Life in Tutankhamun's World'.

'Tut-ankh-amun' is the nomen or birth name of the pharaoh, and the one we are most familiar with.

'Neb-kheperu-ra' is his prenomen, or the throne name given to him when he became king. You will be searching for the young king's throne name Neb-kheperu-ra in the exhibition.



*Tutankhamun's mirror case in the shape of the ankh, sign for 'life'. You can also see his prenomen, Neb-kheperu-ra, in the centre. National Geographic.*

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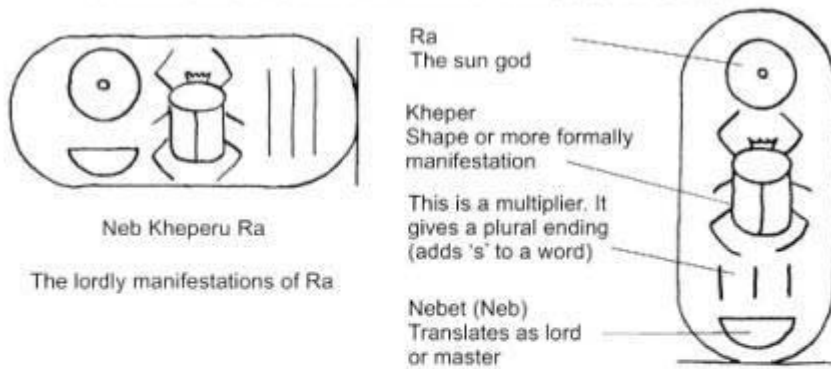
<sup>1</sup> The Egyptian word *shen* comes from the verb 'sheni' (to encircle). The modern word 'cartouche' came from Napoleon's soldiers during his expedition to Egypt. The sign reminded them of the cartridges – *cartouches* – used in their guns.

Print this sheet and take it with you into the exhibition.

**Task 1**

1. While you walk through the exhibition you will be looking for the **prenomen** (throne name) of Tutankhamun in as many items as you can find. Keep count and compare with other members of your team.
2. What does this tell you about the importance of names in ancient Egypt?

**Tutankhamun's throne name. What to look for.**



The scarab beetle shown in the cartouche is the Egyptian dung beetle and the hieroglyph *kheper*. This hieroglyph is associated with the god **Khepri** because, like a dung beetle pushing a ball of dung across the desert, the god Khepri pushed the sun across the sky. Look for brooches, cases and other ornaments of Tutankhamun with the *kheper* placed so as to push the *ra* symbol. This is a visual play on the similarity of his throne name Nebkheperura with the myth of **Khepri** pushing the sun.

Note the re-ordering of hieroglyphs when the cartouche is moved from the horizontal to the vertical.

**Task 2**

1. Find **one** object in the exhibition that depicts each of the symbols 'shen' and 'ankh'.
2. Discuss the function and meaning of each artefact chosen to represent 'shen' and 'ankh'.

**Other signs to look for.**



**Ankh** – Possibly originated from a tied bow with ritual significance. Represents life in the forms of air and water. Frequently used in amulets and other objects.

Look for Tutankhamun's *ankh* mirror case. Can you locate the *ankh* symbol anywhere else? What meaning does the symbol add to the object?



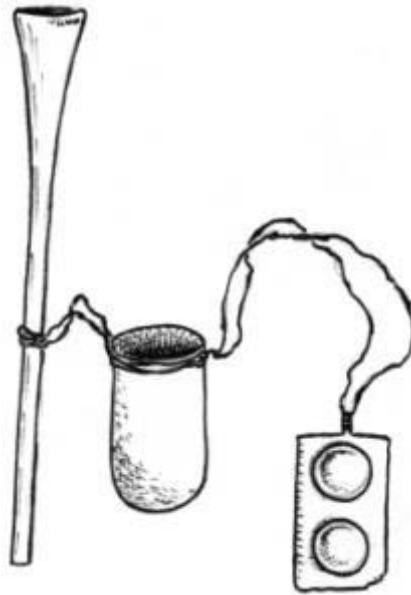
**Shen** – The eternal, protective circle and another symbol of the sun. Frequently used in jewellery in association with symbols of other gods.

Look for Tutankhamun's 'Lunar Pectoral' (chest ornament). With which other god is the *shen* associated? What is the meaning of this association?

Hints:

- Sometimes the name will not be inside a cartouche but integrated into the design of the object. Start by looking for the 'kheper' hieroglyph (the one in the shape of a scarab or beetle), then see if the other elements of the name are there as well.
- Even inside a cartouche the order of the hieroglyphs can change for aesthetic reasons, without changing the meaning. This is why when the cartouche is lying horizontally the hieroglyphs for **Neb-kheperu-ra** are arranged differently to when the cartouche is vertical.

## Extension



*Scribal equipment from Ancient Egypt. Drawing by B Wood*

### Source A

This extract is part of an ancient Egyptian text known as 'The teaching of Duaf's son Khety', or 'The Satire of the Trades'. In it a father is persuading his son to take up the profession of scribe:

*So he spoke to him: Since I have seen those who have been beaten, it is to writings that you must set your mind. Observe the man who has been carried off to a work force. Behold, there is nothing that surpasses writings! They are a boat upon the water...*

*As for a scribe in any office in the Residence, he will not suffer want in it...I do not see an office to be compared with it, to which this maxim could relate. I shall make you love books more than your mother, and I shall place their excellence before you. It is greater than any office. There is nothing like it on earth.*

- Use books and the Internet to research the hieroglyphic symbol for scribe.
- What tools of the scribe's equipment are shown in the symbol?
- Explain the connection between the hieroglyph for 'scribe' and the god Thoth, and find an image that shows the connection between them.
- Give three reasons why the father in Source A would have advised his son to choose the profession of scribe.
- For the full story, see [www.reshafim.org.il/ad/egypt/texts/instructions\\_of\\_kheti.htm](http://www.reshafim.org.il/ad/egypt/texts/instructions_of_kheti.htm).



## References

### Books

Davies, W. V. (1987), *Egyptian Hieroglyphs*, Berkeley: University of California Press.

Gardiner, A. (1957), *Egyptian Grammar: Being an Introduction to the Study of Hieroglyphs*, London: Oxford University Press.

Shaw, I. & Nicholson, P. (1995), *British Museum Dictionary of Ancient Egypt*, London: BCA.

Wilkinson, R. H. (1992), *Reading Egyptian Art*, London: Thames and Hudson.

Wilson, H. (1995), *Understanding Hieroglyphs*, London: Michael O'Mara Books Ltd.

### Websites

Research additional information about the artefacts and symbols using the following websites:

[www.ancient-egypt.org/index.html](http://www.ancient-egypt.org/index.html)

[www.egyptartsite.com/symlst.html](http://www.egyptartsite.com/symlst.html)

[www.aldokkan.com/art/hieroglyphics.htm](http://www.aldokkan.com/art/hieroglyphics.htm)

[www.touregypt.net/featurestories/writing.htm](http://www.touregypt.net/featurestories/writing.htm)



## Topic 7: Journey to the afterlife

### Teacher's guide

#### Pre-visit learning activities

- Consider and discuss: What do artefacts from the tomb of Tutankhamun tell us about how the ancient Egyptians prepared for the Afterlife?
- Read information and sources about shabtis and canopic vessels.

#### Exhibition learning activities

- Find and examine three shabtis in the 'Tutankhamun' room.
- Locate the three canopic vessels in the exhibition.
- Find out which of Tutankhamun's internal organs were placed in the golden coffinette.

#### Post-visit learning activities

- Recall shabtis observed in the exhibition and answer questions.
- Recall information in the exhibition and examine information in Table 1.
- Complete Figure 1 by matching the internal organ to the correct Son of Horus.
- Conduct research on the female goddesses associated with canopic vessels.
- *Extension* – Complete 'Mystery of the Mannequin' task.

Read this information *before* you visit the exhibition.

## Shabtis

In ancient Egypt, the people were obliged to provide a certain amount of labour for the state, usually for three months a year when the Nile was flooding and it was not possible to work in the fields. The ancient Egyptians presumed the same system would be present in the Afterlife and wanted to be freed from the possibility of the gods calling on them to perform work. So they arranged for substitute workers to travel with them to the Afterlife in their tombs. These replacements were small statues with spells of obedience written on them, and they would perform tasks for their masters. Because these statues were answering for the dead person, the ancient Egyptian word for answer, *usheb*, was applied to them. They became known as *ushabtis*, *shawabtis* or *shabtis*.

A total of 413 shabtis were placed in Tutankhamun's tomb: 365 were workmen allocated to each day of the year, 36 were needed to supervise the workers over each 10-day week, and a further 12 supervisors for each of the 12 months of the year. The supervisors or 'overseers' are thought to be the ones that hold the crook and the flail. The workers generally held implements such as hoes or baskets that they needed for work, or they were empty handed. A spell was needed to activate the shabtis and this was written on a number of Tutankhamun's figures, but most shabtis simply had Tutankhamun's name on them.

The spell to activate a shabti was Spell 6 from *The Book of the Dead*:

'O shabti, allotted to me, if I be summoned or if I be detailed to do any work which has to be done in the realm of the dead... you shall detail yourself for me on every occasion of making arable the fields, of flooding the banks or of conveying sand from east to west; 'Here I am', you shall say.'

## Canopic vessels



*Canopic coffinettes which held the internal organs of Tutankhamun. National Geographic.*

The secret to successful mummification is to remove all the fluids from the body, thus stopping the process of decay. The best way to do this is to remove the moist organs from the chest and abdominal cavities, then dry out the rest of the body by packing it in *natron*. Natron is a naturally occurring salt which contains a high proportion of sodium carbonate and bicarbonate, which dries out a body's fluids.

In the Fourth Dynasty, the Egyptians began preserving some organs (the lungs, liver, intestines and stomach) in containers which were then placed in the tomb with the rest of the body. Deities called 'The Four Sons of Horus' were each assigned to protect a different organ. A goddess was also assigned to each of the Sons of Horus to keep them safe.

In Tutankhamun's tomb, his mummified organs were placed inside four small golden coffins, or 'coffinets'. These were then placed inside a calcite chest divided into four compartments. Each compartment was topped with a calcite lid carved in the shape of a human head. On each corner of Tutankhamun's calcite chest a protective goddess was carved, and then it was placed in a gold-covered shrine with statues of goddesses protecting each side.

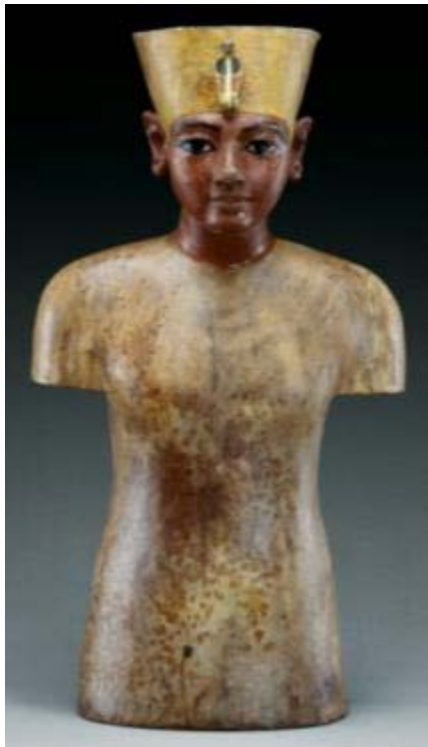
In later Nineteenth Dynasty mummifications, animal heads representing the Four Sons of Horus were used on three of the lids; there are many examples of these later types on display in museums around the world.

Some scholars believe on stylistic grounds that both the coffinets and the carved calcite heads belong to someone other than Tutankhamun but were requisitioned for use in his tomb. This would not necessarily matter to Egyptians who believed that the essence of a person was not their portrait but their name, and rededicating something would be sufficient to change the identity involved.

**Print this sheet and take it with you into the exhibition.**

- Find three shabtis in the 'Tutankhamun' room.
- Examine them and remember what each is holding in its hands.
- Locate the three canopic vessels in the exhibition:
  - the canopic jar of Queen Kiya ('Egypt Before Tutankhamun' room)
  - the canopic jar of Tjuya ('Death, Burial and the Afterlife' room)
  - the golden coffinette of Tutankhamun ('Causing His Name to Live' room).
- Find out which of Tutankhamun's internal organs were placed in the golden coffinette.

## Extension



*Torso mannequin of Tutankhamun.  
National Geographic.*

Examine the 'mannequin' of Tutankhamun in the exhibition. This is the life-sized wooden head and torso of Tutankhamun to be found after the 'Religious Revolution' room.

**Complete these activities *after* your visit.**

1. How many of the three Tutankhamun shabtis in the exhibition do you think are supervisor or overseer shabtis, and how many are workers? What is it about the figurines that helped you classify them?
2. Recall the information you gained from the exhibition about the canopic coffinettes and carefully examine the information in Table 1 below.

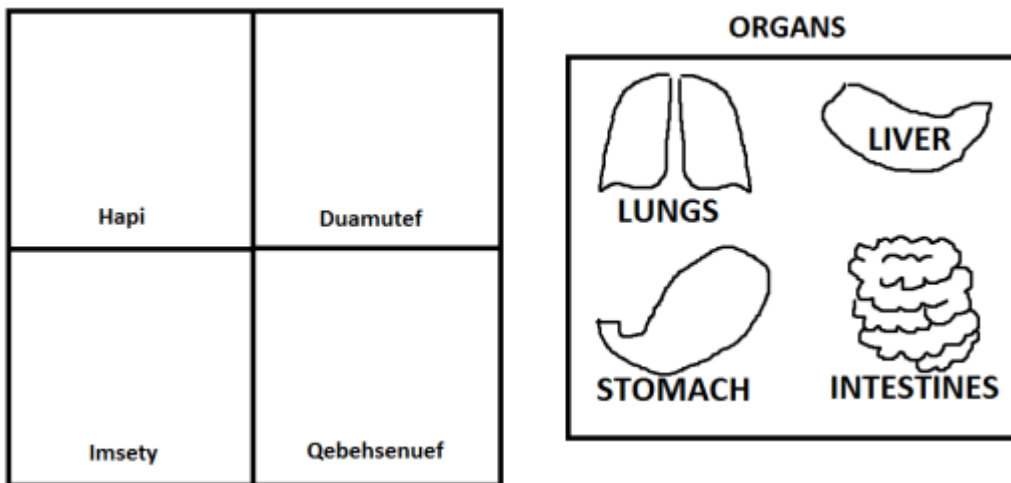
**Table 1**

<b>Protective female goddesses</b>	<b>Four Sons of Horus</b>	<b>Head type for lid</b> (Note: Tutankhamun's canopic lids all had human heads. Animal heads were introduced later.)	<b>Organ protected</b>
	Duamutef	Human (Jackal used at later date)	Stomach
	Qebehsenuf	Human (Falcon used at later date)	Intestines
	Hapi (Hapy)	Human (Baboon used at later date)	Lungs
	Imsety	Human	Liver

3. Examine Figure 1 below.

- a. Use the information in Table 1 above to help you place the correct organ in the canopic vessel under the protection of the appropriate Son of Horus.
- b. Which organ was contained in the canopic coffinette in the exhibition?

Figure 1



4. Use books and the Internet to find out which female goddess protects which Son of Horus. Insert the correct names in Table 1.
5. Tjuya's canopic jar in the exhibition is inscribed with a spell by the goddess Selket protecting Qebehsenuf. Which part of Tjuya was preserved in this jar?
6. Develop your own theory to explain why the internal organs of Queen Kiya and Tjuya are contained in canopic vessels, and Tutankhamun's are in golden coffinettes.

## Extension – The Mystery of the ‘Mannequin’

This artefact, the so-called ‘mannequin’ or model of Tutankhamun, was discovered in the antechamber of Tutankhamun’s tomb. It was situated underneath the dismantled pieces of the king’s chariots.

It is an unusual object, and archaeologists have been puzzled by its function and the reason it was placed in the tomb.

Read the following descriptions of the wooden life-sized model of Tutankhamun’s head and torso. Your task is to critically evaluate the two interpretations of the artefact provided, then to develop your own interpretation of its function and meaning in the tomb.

### **SOURCE A: Howard Carter’s description card of the ‘mannequin’ from the excavation of the tomb.**

**ITEM 116 – Description** – Portrait bust of the king in wood.

**Crown** Simple flat-topped type, painted yellow on gesso. Pegged to front uraeus of wood, covered with gesso: head and chest details of this in black and red paint; remainder covered with gold leaf; convoluted body and tail in red paint on yellow of crown behind.

**Flesh** i.e. face, neck and ears of brick red colour; on thin gesso.

Eyebrows, eye frames and pupils black paint: white of eye in white paint, with red stippling in corners.

**Body** from neck downwards painted white: this to represent a white linen garment(?). Also thin gesso.

Body cut off flat at hips, and arms just below shoulders. Must have been either a mannequin bust, or a tailor’s dummy.

Excerpted from

[www.griffith.ox.ac.uk/gri/carter/116-c116-1.html](http://www.griffith.ox.ac.uk/gri/carter/116-c116-1.html) and [www.griffith.ox.ac.uk/gri/carter/116-c116-2.html](http://www.griffith.ox.ac.uk/gri/carter/116-c116-2.html).

### **SOURCE B: Dr. Zahi Hawass’s description of the ‘mannequin’.**

...marks on the surface suggest that the figure once wore a jewelled corselet... if this is the case, it might have stood in either a temple or a palace and held costumes of state for ceremonial purposes. However it is also possible that it was a ritual figure of some sort. It is similar in scale and style to a wooden head of the child king as Nefertem... generally understood to be an image of the king in a perpetual state of rebirth... The mannequin may have served a similar purpose, although its interpretation is not clear.

Hawass, Z. (2005). *Tutankhamun and the Golden Age of the Pharaohs*. Washington: National Geographic Society.

1. Which do you think is the most convincing interpretation and why?
2. Propose your own theory as to the purpose of this mysterious object. Use evidence to support your interpretation.



## References

### Books

- Hawass, Z. (2005), *Tutankhamun and the Golden Age of the Pharaohs*, Washington: National Geographic Society.
- Hobson, C. (1997), *Exploring the World of the Pharaohs: A Complete Guide to Ancient Egypt*, London: Thames and Hudson Ltd.
- Mertz, B. (1978), *Red Land, Black Land*, New York: Dodd, Mead and Company.
- Reeves, N. (1995), *The Complete Tutankhamun*, London: Thames and Hudson Ltd.
- Shaw, I. & Nicholson, P. (1995), *The British Museum Dictionary of Ancient Egypt*, London: BCA.

### Websites

- Life beyond the tomb – Death in ancient Egypt:  
<http://life.australianmuseum.net.au/>.
- Video of replica of Tutankhamun's tomb (KV62), treasures and other information:  
[www.squidoo.com/kv62](http://www.squidoo.com/kv62).

## Topic 8: Tutankhamun's family connections

### Teacher's guide

#### Pre-visit learning activities

- Consider and discuss: What has recent research revealed about Tutankhamun's family?
- Read Source A to understand the problems associated with identifying Tutankhamun's relatives.
- Go to websites for information on the results of the 2010 DNA analysis of the mummies of Tutankhamun's relatives.

#### Exhibition learning activities

- Find information in the exhibition that explains how specific people are related to Tutankhamun.
- Find and examine an artefact in the exhibition that belonged to each of these members of Tutankhamun's family.

#### Post-visit learning activities

- Recall observations in the exhibition and complete the table showing Tutankhamun's family relationships and artefacts associated with them.
- Complete diagram of Tutankhamun's family tree using results of 2010 DNA analyses.
- *Extension* – Conduct research on the Eighteenth Dynasty and the mystery of Smenkhkare.

**Read this information *before* you visit the exhibition.**

1. Consider and discuss: What has recent research revealed about Tutankhamun's family?

**SOURCE A**

'More than 5,000 artefacts were found inside the tomb. But the archaeological record has so far failed to illuminate the young king's most intimate family relationships. Who were his mother and father? What became of his widow, Ankhesenamun? Are the two mummified fetuses found in his tomb King Tutankhamun's own prematurely born children, or tokens of purity to accompany him into the Afterlife? To answer these questions, we decided to analyse Tutankhamun's DNA, along with that of ten other mummies suspected to be members of his immediate family. ...

...The identities of four of the mummies were known. These included Tutankhamun himself, still in his tomb in the Valley of the Kings, and three mummies on display at the Egyptian Museum: Amenhotep III, and Yuya and Tuyu [Tjuya], the parents of Amenhotep III's great queen, Tiye [Tiya]. Among the unidentified mummies was a male found in a mysterious tomb in the Valley of the Kings known as KV55. Archaeological and textual evidence suggested this mummy was most likely Akhenaten or Smenkhkare.'

'King Tut's Family Secrets' by Zahi Hawass in *National Geographic*, September 2010. Available at <http://ngm.nationalgeographic.com/2010/09/tut-dna/garrett-photography>.

2. Read Source A to understand the problems with identifying Tutankhamun's relatives.
3. Go to these websites for information on the results of the 2010 DNA analysis of the mummies of Tutankhamun's relatives:
  - 'King Tut's Family Secrets' – Feature article in *National Geographic*, September 2010 by Zahi Hawass. Website has photos and interactive material relating to DNA evidence about Tut's family relations, his untimely death, and a general article on royal incest:  
<http://ngm.nationalgeographic.com/2010/09/tut-dna/garrett-photography>
  - 'King Tut Unwrapped', Discovery Channel:  
<http://dsc.discovery.com/videos/king-tut-unwrapped/>



**Print this sheet and take it with you into the exhibition.**

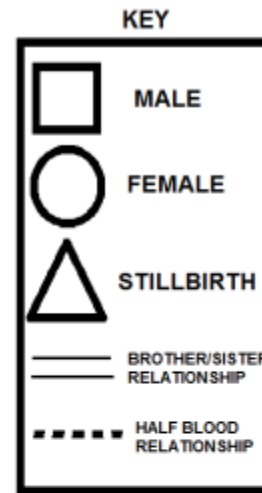
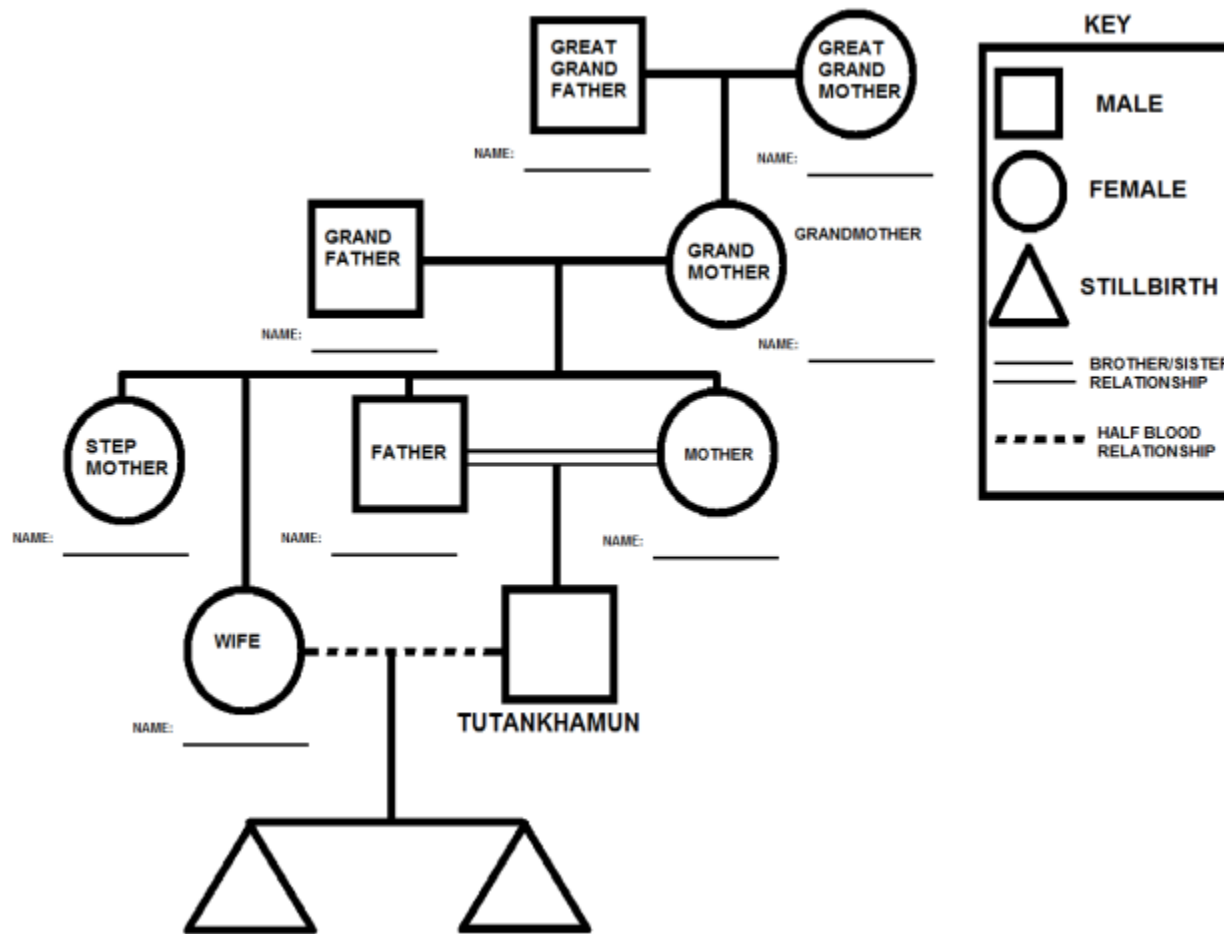
1. Find information in the exhibition that tells you how each of these people is related to Tutankhamun:
  - Yuya
  - Tuyu (Tjuya)
  - Amenhotep III
  - Queen Tiya (Tiye)
  - Amenhotep IV (Akhenaten)
  - Nefertiti
2. Find and examine an artefact in the exhibition that belonged to each of these members of Tutankhamun's family.

Complete these activities *after* your visit.

1. Recall your observations in the exhibition and complete the table:

Member of Tutankhamun's family	Relationship to Tutankhamun	Artefact in exhibition
Yuya		
Tuyu (Tjuya)		
Amenhotep III		
Queen Tiya (Tiye)		
Amenhotep IV (Akhenaten)		
Nefertiti		

2. Fill in the missing names of Tutankhamun's relatives on the following family tree.



3. According the 2010 DNA evidence, who was the mother of Tutankhamun?



#### 4. Extension

- What is the meaning of 'dynasty'?
- Explain why historians use dynasties to divide Egyptian history.
- Make a list of all the rulers of the Eighteenth Dynasty.
- Who was the founder of the Eighteenth Dynasty? Do all scholars agree?
- Who was the last ruler of the Eighteenth Dynasty? Explain why he is considered the last.
- Use books and the Internet to research theories on the identity of 'the mysterious Smenkhkare'.

Zahi Hawass recently said,

'Many scholars believe that his [Tut's] father was instead Akhenaten. Supporting this view is a broken limestone block found near Amarna that bears inscriptions calling both Tutankhaten and Ankhesenpaaten beloved children of the king. Since we know that Ankhesenpaaten was the daughter of Akhenaten, it follows that Tutankhaten (later Tutankhamun) was his son. Not all scholars find this evidence convincing, however, and some have argued that Tutankhamun's father was in fact the mysterious Smenkhkare. I always favoured Akhenaten myself, but it was only a theory.'

Theory of Smenkhkare's identity	Scholar	Evidence
1.		
2.		
3.		

1. Explain which theory about Smenkhkare's identity you find the most convincing.





## References

### Books

- Hawass, Z. (2005), *Tutankhamun and the Golden Age of the Pharaohs*, Washington: National Geographic Society.
- Hobson, C. (1997), *Exploring the World of the Pharaohs. A Complete Guide to Ancient Egypt*, London: Thames and Hudson Ltd.
- Shaw, I. & Nicholson, P. (1995), *The British Museum Dictionary of Ancient Egypt*, London: BCA.

### Websites

- 'King Tut's Family Secrets' – Feature article by Dr Zahi Hawass in *National Geographic*, September 2010:  
<http://ngm.nationalgeographic.com/2010/09/tut-dna/garrett-photography>
- 'King Tut Unwrapped', Discovery Channel:  
<http://dsc.discovery.com/videos/king-tut-unwrapped/>
- 'Common and Unexpected Findings in Mummies from Ancient Egypt and South America as Revealed by CT', *RadioGraphics*, September 2008 – Explains the mummification process and x-ray examination of Egyptian mummies:  
<http://radiographics.rsna.org/content/28/5/1477.full>

## **Topic 9: The mysterious life and death of Tutankhamun**

### **Teacher's guide**

#### **Pre-visit learning activities**

- Consider and discuss: What can an examination of the mummy, X-rays, CT scans and previous scientific studies tell us about Tutankhamun's health during his lifetime, and about his death?
- Read 'Scientific Studies of the Mummy of Tutankhamun' and 'Studies of the Body'.

#### **Exhibition learning activities**

- Examine the replica mummy and information about scientific studies of the mummy.

#### **Post-visit learning activities**

- Use the outline drawing of Tutankhamun's mummy provided to make notes about observations.
- Analyse the details of each body part using the questions.
- Research information about the scientific analyses of Tutankhamun's mummy using selected websites.
- *Extension* – Evaluate current theories on the cause of the death of Tutankhamun.

Read this information *before* you visit the exhibition.

### Scientific studies of the mummy of Tutankhamun

#### *Original condition of the mummy*

'We had expected to find the mummy in better condition than most... but alas! we were disappointed... The tomb robbers who dragged the remains of the Pharaohs from their coverings for plunder... at least protected those royal remains against the chemical action of the sacred unguents before there was time for corrosion....'

'...We had hoped, by removing a thin outer layer of bandage from the mummy, to free it at the points of adhesion to the coffin so that it could be removed, but in this we were again disappointed. It was found that the linen beneath the mummy and the body itself had been so saturated by the unguents which formed a pitch-like mass at the bottom of the coffin and held it embedded so firmly, that it was impossible to raise it except at risk of great damage. Even after the greater part of the bandages had been carefully removed, the consolidated material had to be chiselled away from beneath the limbs and trunk before it was possible to raise the king's remains.'

From *The Tomb of Tutankhamun*, by Howard Carter, 1972, Book Club Associates, pp. 139-141.

Note: Carter is referring to the ritual ointments poured over the body which had solidified around Tutankhamun.

### Studies of the Body

Since the discovery of the tomb of Tutankhamun in November 1922, a limited number of studies of the mummy have been undertaken:

<b>1925</b>	Dr Douglas Derry, Professor of Anatomy at the Egyptian University, Dr Saleh Hamdi, Professor of the Faculty of Medicine in Alexandria, and Howard Carter performed an autopsy.
<b>1968</b>	Professor Ronald Harrison, of Liverpool University, X-rayed the mummy.
<b>1978</b>	Dr James E. Harris, Professor of Orthodontics at the University of Michigan, X-rayed the head and conducted a dental examination. The results were never published.
<b>2005</b>	An Egyptian team of medical experts, led by Dr Madeeha Khattab, Dean of the School of Medicine at Cairo University and archaeologists, led by Dr Zahi Hawass, removed the mummy from its tomb to conduct CT scans* in a special trailer located outside the tomb. The team took 1700 images.
<b>2007-2009</b>	A team of scientists led by Dr Zahi Hawass took DNA samples from bone tissue of 11 mummies to determine Tutankhamun's family relationships, as well as any genetic disorders or diseases that may have caused his death.
*CT scan = computerised tomography	

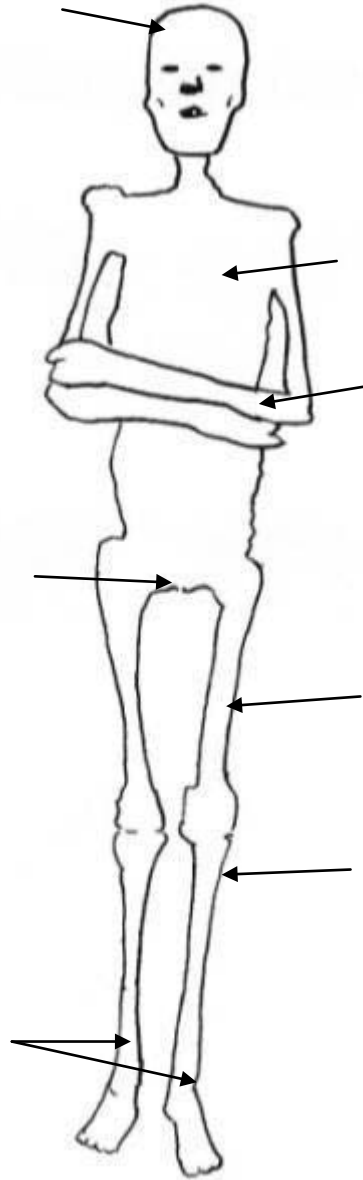
**Print this sheet and take it with you into the exhibition.**

Go to the room of the exhibition called 'Death of Tutankhamun'.

1. Examine the replica mummy of Tutankhamun and pay particular attention to:
  - Teeth – overbite, large front incisors.
  - Skull – cranial sutures (joins). Is there anything on the skull?
  - Chest cavity – ribs, sternum, collar bones. What is there? What is missing?
  - Spine – whole spine and individual vertebrae. Is there anything unusual?
  - Arms – position on mummy.
  - Legs – Are there any breaks? Compare left to right.
  - Feet – Is there anything unusual about either foot? Compare left to right.
  - Which organs are missing? Why are they missing?
2. What damage was caused to the mummy by the ritual ointments which were poured over it? What damage was done by Carter in removing Tutankhamun from his coffin and retrieving the ornaments on the body?
3. Examine the results of other scientific studies presented in the exhibition such as X-rays and CT scans. What do X-rays and CT scans reveal that you didn't observe on the mummy?

Complete these activities *after* your visit.

1. Record on the diagram below your observations of the mummy.



2. Go to the websites below to read about theories on the cause of death of Tutankhamun.
- 'Tutankhamun: Anatomy of an Excavation', Howard Carter's diaries. The fourth excavation season in the tomb of Tutankhamun. 23 September 1925 to 21 May 1926, Griffith Institute, Oxford. See 11-19 November 1925 for Carter's description of the autopsy of Tutankhamun's mummy:  
[www.griffith.ox.ac.uk/gri/4sea4not.html](http://www.griffith.ox.ac.uk/gri/4sea4not.html)
  - 'The Skull and Cervical Spine Radiographs of Tutankhamen: A Critical Appraisal', by Richard S. Boyer, Ernst A. Rodin, Todd C. Grey, and R. C. Connolly, in *AJNR American Journal of Neuroradiology* 24:1142–1147, June/July 2003:  
<http://wysinger.homestead.com/tut5.pdf>
  - 'The Death of King Tut' by Jimmy Dunne (n.d.). Summary of interpretations of 2005 CT scans by Dr Zahi Hawass and others:  
[www.touregypt.net/featurestories/kingtutdeath.htm](http://www.touregypt.net/featurestories/kingtutdeath.htm)
  - 'Press Release: Tutankhamun CT scan', by Dr Zahi Hawass, 8 March 2005:  
[www.drhawass.com/blog/press-release-tutankhamun-ct-scan](http://www.drhawass.com/blog/press-release-tutankhamun-ct-scan)
  - 'King Tut Died in Hunting Accident, Expert Says', *National Geographic*, 23 October 2007:  
[http://news.nationalgeographic.com/news/2007/10/071023-king-tut\\_2.html](http://news.nationalgeographic.com/news/2007/10/071023-king-tut_2.html)
  - 'King Tut DNA Research and Cause of Death Finally Revealed?' Posted by Ann Mon at *Heritage Key*, 15 February 2010:  
<http://heritage-key.com/blogs/ann/king-tut-dna-research-and-cause-death-finally-revealed>
  - 'Tutankhamen 'killed by sickle-cell disease'', by Jo Marchant, *New Scientist*, 25 June 2010:  
[www.newscientist.com/article/dn19094-tutankhamen-killed-by-sickle-cell-disease.html](http://www.newscientist.com/article/dn19094-tutankhamen-killed-by-sickle-cell-disease.html)

3. Complete the comparative table to help you examine the theories on the cause of death of Tutankhamun.

Year	Examiner(s)	Method	Evidence	Interpretation	Your assessment
1925	Dr Douglas Derry Dr Saleh Hamdi Howard Carter	Performed autopsy			
1968	Prof. Ronald Harrison	Performed X-rays			
1998	Dr Bob Brier	Examined Prof. Harrison's X-rays (did not examine body or prepare own x-rays)			
2005	Dr Madeeha Khattab Dr Zahi Hawass	Conducted CT scans			
2010	Dr Zahi Hawass + team of medical experts	Conducted DNA analysis			
OTHER					





## Extension

- Evaluate the interpretations of Tutankhamun's death.
  - Which theory do you think is the most convincing? Why?
  - Use evidence to develop your own theory (or theories) on:
    - Tutankhamun's health during his lifetime
    - Tutankhamun's death
- Present your theory (or theories) to the rest of the class. Remember to support your theory with evidence.

## References

### Books

Hawass, Z. (2005), *Tutankhamun and the Golden Age of the Pharaohs*, Washington: National Geographic Society.

## Topic 10: Ethics – the study and display of human remains

### Teacher's guide

#### Pre-visit learning activities

- Consider and discuss ethical issues regarding the study and display of Tutankhamun's mummy.
- Read information sheet.

#### Exhibition learning activities

- Find and examine two examples where human remains are displayed in the exhibition (images, replicas etc.).
- Examine the facial reconstruction of Tutankhamun.

#### Post-visit learning activities

- Fill in table to compare and contrast the display of human remains in the exhibition.
- Answer questions relating to the display of human remains and the reconstruction of the face of Tutankhamun in the exhibition.
- *Extension* – Conduct research on ethical considerations relating to the impact of biomedical research on Tutankhamun.

## **Read this information *before* you visit the exhibition.**

During your visit to the exhibition you will think about some ethical issues regarding the display of human remains in museums. The information below will help you to consider different perspectives on these issues.

### **1. A question of ethics**

*The Macquarie Dictionary* defines 'ethics' as 'a system of moral principles by which human actions and proposals may be judged good or bad, right or wrong'. Archaeologists, historians and museum professionals frequently deal with questions of ethics in their work and must make serious decisions about how they will interpret and present the past in the present, as well as in the future.

### **2. ICOM code of ethics on human remains**

The International Council of Museums (ICOM) has a statement about the code of ethics for museums in general. With regard to human remains, ICOM states:

*'Human remains and materials of sacred significance must be displayed in a manner consistent with professional standards and, where known, take into account the interests and beliefs of members of the community, ethnic or religious groups from whom the objects originated. They must be presented with great tact and respect for the feelings of human dignity held by all peoples.'*

This means that the interests of many groups of peoples and value systems should be considered in the process of artefact interpretation and presentation, especially of human remains. These 'stakeholders' include the ancient peoples and society, descendants of those peoples (ethnic groups), individual researchers, the research community, modern governments and societies, tourist organisations, tourists and students.

### **3. The Royal Mummy Room, in The Egyptian Museum of Antiquities, Cairo**

In 1981 President Anwar Sadat ordered the Royal Mummy Room in the Egyptian Museum in Cairo be closed to the public. Sadat closed the mummy room because he believed it was disrespectful to expose the naked bodies of Egypt's great rulers to the common gaze.

When Hosni Mubarak became President of Egypt after the assassination of Sadat in 1981 he ordered the mummy display to be reopened; this was eventually achieved in 1994. Each of the mummies was displayed in a separate case with a cover hiding the body, with only the hands, neck and face exposed and no photography was allowed. Mubarak believed it was important that Egyptians and others should see the great rulers of the New Kingdom.

In August 2006 the Egyptian Museum opened a second royal mummy room after two years of preparation. The first room now displays eleven royal mummies from the late Seventeenth Dynasty to the Nineteenth Dynasty. The second room is designed like a royal tomb with a vaulted ceiling and indirect, low lighting. It displays eleven mummies that are exhibited inside special showcases. The mummies belong to royal individuals from the Twentieth Dynasty to the Third

Intermediate period. Dr. Zahi Hawass, Secretary General of the Supreme Council of Antiquities (SCA), said that all these mummies will be moved to a special hall already planned at the National Museum of Egyptian Civilization in Fustat where they will be displayed 'with more respect and for educational purposes rather than for thrills'.

[www.guardians.net/hawass/news/new\\_mummy\\_room\\_at\\_the\\_cairo\\_museum.htm](http://www.guardians.net/hawass/news/new_mummy_room_at_the_cairo_museum.htm)

#### 4. Reconstructions of the face of Tutankhamun

Three independent teams recreated busts of Tutankhamun based on the 2005 CT scans. The Americans did not know the identity of the deceased. The French and the Egyptians knew his identity. The researchers were pleased to find that the three likenesses closely resembled one another and largely validated the scientific processes used in their construction.

While you are in the exhibition, consider the implications of the different facial reconstructions on people's ideas about what Tutankhamun looked like. Would it have made a difference to the display if one of the other models had been displayed?



French team's model  
National Geographic.



American team's plaster cast  
National Geographic.

#### 5. Go to these websites to read about ethical issues relating to the display of human remains in museums:

- 'British museums cover human remains to avoid giving offence', *Mail Online*, 25 October 2010:  
[www.news.com.au/breaking-news/british-museums-cover-human-remains-to-avoid-giving-offence/story-e6frku0-1225943460387](http://www.news.com.au/breaking-news/british-museums-cover-human-remains-to-avoid-giving-offence/story-e6frku0-1225943460387)
- 'Looking After Mummy: The Ethics of Preserving Human Remains', by Paul Viega, *Heritage Key*, 18 November 2009:  
<http://heritage-key.com/egypt/looking-after-mummy-ethics-preserving-human-remains>
- 'King Tut Exhibit Prompts Debate on His Skin Color', by Joel Rosen, National Public Radio (USA), 28 August 2007:  
[www.npr.org/templates/story/story.php?storyId=13992421](http://www.npr.org/templates/story/story.php?storyId=13992421)
- 'King Tut's Face: Behind the Forensic Reconstruction', by Brian Handwerk, *National Geographic News*, 11 May 2005:  
[http://news.nationalgeographic.com/news/2005/05/0511\\_050511\\_kingtutface.html](http://news.nationalgeographic.com/news/2005/05/0511_050511_kingtutface.html)

**Print this sheet and take it with you into the exhibition.**

Your aim is to think about ethical issues relating to the display of human remains in the exhibition.

1. Locate two examples of human remains displayed in the exhibition, and examine them closely for details.

Questions to consider:

- Is the body on display authentic, replica or a visual image? Explain how you know.
- Has the body been identified as belonging to a particular person?
- How long ago did the person die?
- Do we know how the person died? Explain.
- Has the body of the person ever been on display before? Elaborate and explain.
- Does the way the body is displayed in this exhibition go against the religious beliefs of the ancient person? Explain.
- In your opinion, has the body been displayed as an artefact or as a person?
- In your opinion, has the body been displayed with respect?

2. Locate and examine the reconstruction of the face of Tutankhamun in the last room of the exhibition. Pay special attention to the facial features and the method of display.

Questions to consider:

- Does the display explain that the reconstruction is an interpretation?
- Does the display tell you who made the reconstruction?
- Does the display tell you about the evidence used to make the reconstruction?



**Complete these activities *after* your visit.**

1. Recall your observations of the two examples of human remains displayed in the exhibition.
2. Consider the impact of this display on each of the following relevant stakeholders: the ancient individual (mummy), the ancient society (Egypt), individual researchers, the research community (universities, institutions), modern Egyptian government/society, cultural institutions (museums), descendants (modern ethnic groups), tourist operators, tourists, students.
3. Fill in the table below to help you compare and contrast the way the human remains have been displayed in the exhibition.

	Similarities in display	Differences in display
Example 1		
Example 2		

4. Which method of display of human remains do you consider to be the most ethical? Give reasons to support your opinion.
5. List individuals or groups who could be *positively* affected by the display of human remains in this exhibition.

6. List individuals or groups who could be *negatively* affected by the display of human remains in this exhibition.
7. Suggest an alternative way of displaying human remains that you consider more appropriate or 'ethical'.
8. Find out about the attitudes of (some) Indigenous Australians to seeing the image of or hearing the voice or name of the deceased. What impact does this have on museum displays that deal with Indigenous Australians.
9. In your opinion, does the reconstruction of Tutankhamun's face present a particular interpretation of his personality? Explain.
10. Does the reconstruction of the face of Tutankhamun present a particular interpretation of his ethnicity? How?
11. Identify individuals or groups that could be *positively* affected by the reconstruction of the face of Tutankhamun. Explain how this would affect them.
12. Identify individuals or groups that could be *negatively* affected by the reconstruction of the face of Tutankhamun. Explain how this would affect them.
13. In your opinion, should the reconstruction of the face of Tutankhamun have been included in the exhibition? Explain your point of view.
14. Suggest an alternative way of displaying an interpretation of Tutankhamun's features that you consider more 'ethical'.





**Extension**

- Complete this Stakeholder Analysis sheet to help you analyse the impact of bio-medical research on the mummy of Tutankhamun.

Stakeholder	Positive consequences	Negative consequences	Your assessment
Ancient individual (mummy)			
Ancient society (Egypt)			
Individual researchers			
Research community (universities, institutions)			
Modern Egyptian government/society			
Cultural institutions (museums)			
Descendants (modern ethnic groups)			
Tourist operators			
Tourists			
Students			



- Bioethics is the study of the ethical, social, legal, philosophical and other related issues which arise in healthcare, the biological sciences and biotechnology.
- Go to an Australian bioethics portal at [www.bioethics.gov.au/](http://www.bioethics.gov.au/) to find out more about bioethics and medical research in Australia.
- Use the 'Stakeholder Analysis' sheet provided on the previous page to assess the possible impacts of biomedical research on the mummy of Tutankhamun.
- Assume the role and perspective of a bioethicist who has been asked to give advice to an Australian museum on the impact of biomedical research on a mummy in the museum's collection. Use your knowledge of the biomedical research on Tutankhamun to write a 500-word recommendation to the museum on the ethics of undertaking this type of research.