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Educational Assistant / Core Activity Leader Workbook

NAME: _____

START DATE: _____

Welcome to your training manual to become an

EDUCATION ASSISTANT / CORE ACTIVITY LEADER

The primary function of the volunteer programme is to assist the Museum in the fulfillment of its mission; to provide education and entertainment to the public. Volunteers help us to do this by acting as a bridge between the Museum, the community and the public. Volunteers are our Ambassadors.

You have now started upon a 20 hour induction. This induction pack, together with training, will provide you with the basics so you can fulfil this role. We aim to supply you with sufficient information to prepare you to carry out your duties and responsibilities as a volunteer.

In this induction manual you will find the following pieces of information:

1. Your role description and criteria
2. A sign off sheet
3. Key Tasks for you to complete
4. Questions that must be completed
5. A record of your volunteering hours for your induction

It is your responsibility to complete the criteria and get it signed off. However, if you are struggling to complete it within the 20 hours, please do not panic – speak to the Volunteer Manager and they will be happy to help you and find a more flexible way of completing the requirements!

Volunteering here is fun and very rewarding. This manual and the criteria are designed to help you find your feet and give you confidence in working in an Egyptology museum. Peer education and interacting with other volunteers are all part of the museum experience, so please ask other volunteers to help you.

As always, if you have any problems, or queries, speak to the Volunteer Manager!

Happy Volunteering!

Volunteer Manager
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Statement of purpose:

All volunteer roles must actively support the museum's mission in the interpretation and care of Egyptian archaeological material and related documentation for the education and entertainment of the public. They will do this by actively practicing the three core roles of the museum in any role they undertake: **Preservation of the collection; Education and Widening participation.**

Responsible to: The Volunteer Manager

Role Purpose: To provide assistance to the educational leaders in the delivery of educational activities. While there are no educational groups act as gallery assistants to ensure a positive visitor experience.

Criteria to be completed prior to role being attained:

- **20** hour induction –to include the completion of the following:
- Health, safety and safeguarding training (induction)
- Customer Care (30 min staff workshop)
- Preventative conservation (staff workshop)
- Completion of all tasks in workbook for this role
- All 3 public activities delivery and staff assessment (mummification/materials/senet)
- Key skills and curriculum workshop (30 min staff workshop)
- Preventative conservation workshops (1 hour staff workshop)

Key duties and Responsibilities	Outcome Expected
<i>Assist educational delivery and deliver public activities (core job)</i>	<i>Schools and the public have a stimulating and enjoyable experience with activities appropriately supported and delivered</i>
<i>Gallery maintenance (core job)</i>	<i>Ensure the care of the gallery</i>
<i>Visitor and customer care (core job)</i>	<i>Meet specific needs of visitors and provide information and hands-on activities</i>
Attend pre-shift meeting for information of the days visitors and their needs and during the shift help organise school groups in galleries	Timekeeping, working as a team, safety of visitors and providing appropriate levels of information
Cleaning/basic preventative conservation	Basic tasks to keep galleries clean tidy and collection safe
Signposting	Ensure visitors visit both galleries and get questions answered effectively, including interactive displays

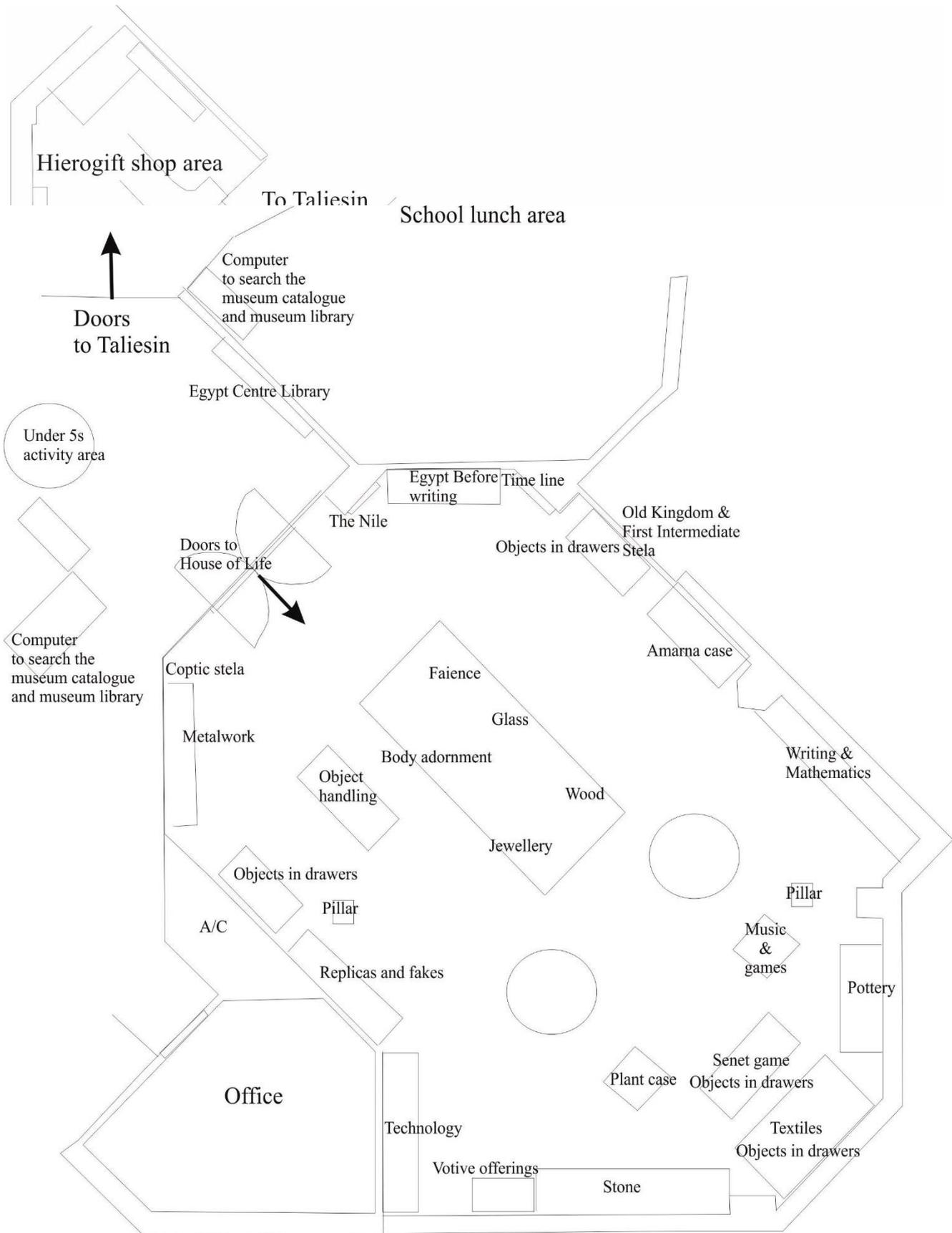
* **You may only deliver the core activities to paying schools on completion of assessments**

* **When assisting an Education Leader never interrupt their delivery or distract children in the group**

Skills Required

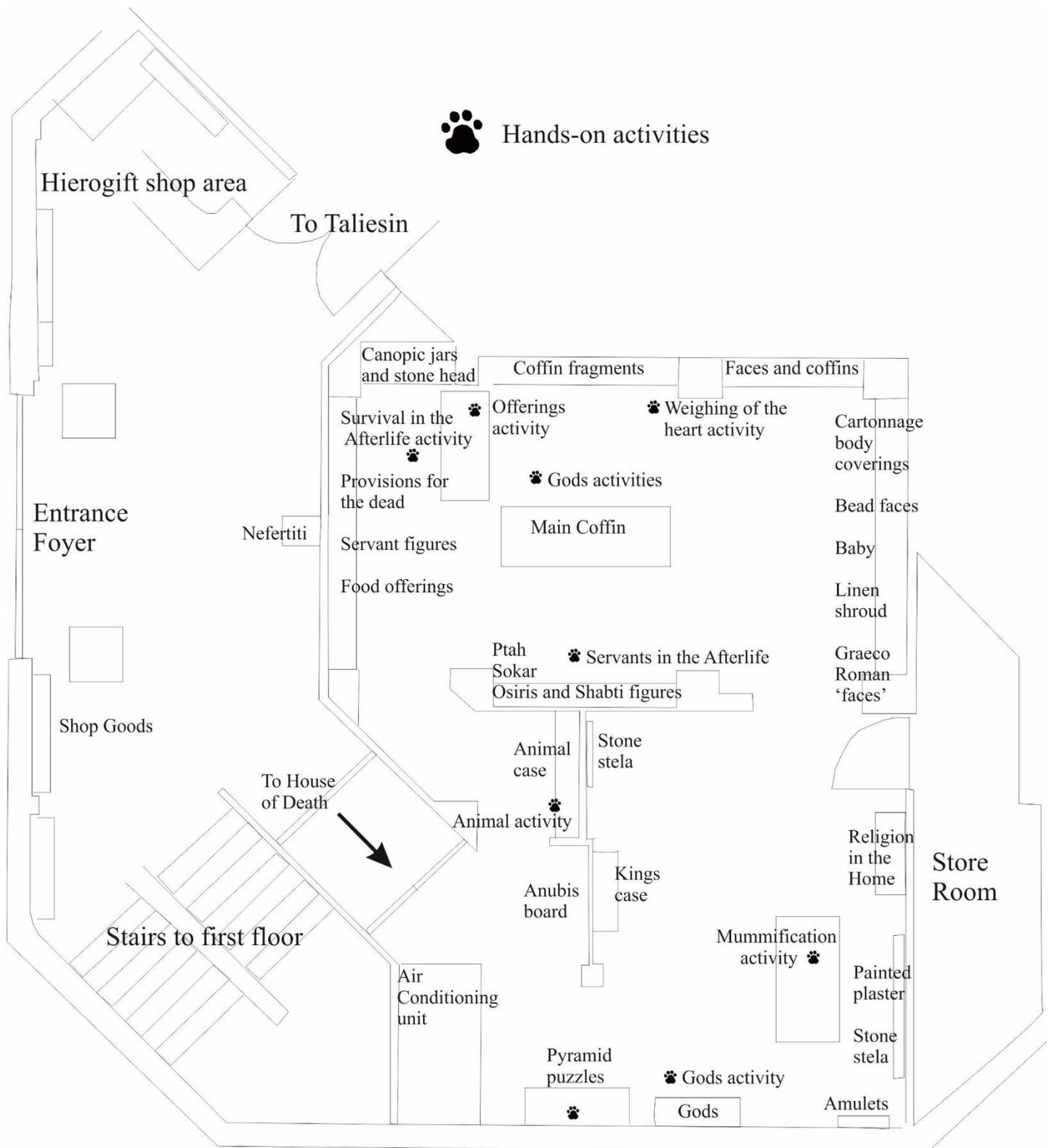
- Communication skills
- Customer care
- Understand and follow procedures
- Willingness to learn and develop independently
- Reliable
- Positive manner and good sense of humour
- Teamwork

Identify the main cases associated with the educational activities.



Egypt Centre First floor plan

© The Egypt Centre June 2018



Ground Floor Plan

Preventative Conservation

Conservation Strategy from the Forward Plan

We have to safeguard the objects without them the museum would cease to exist. A wide range of factors can contribute to the deterioration of objects such as light levels, moisture, heat, air pollution, handling and movement, insect infestation and storage conditions. There is always a tension between preservation and access. Do we keep objects safe by tucking them away, or do we display them and allow visitors greater access by handling the 'real' thing!

The long-term conservation of items within the collection should be given priority for two reasons:

1. Without the collection there is no Museum.
2. Donors have entrusted the Museum with the long-term care of items.

Preventative conservation aims to prolong the life of museum objects and collections that they might be enjoyed by future generations of visitors. Every member of staff is responsible for preventative conservation.

What are the main principals of preventative conservation?

Light

What level do we keep our lights at?

What type of damaging light do we not allow in the galleries?

Why do we offer torches?

- 1.
- 2.
- 3.

Pests

What do we stop from entering the gallery that might attract pests?

Where is the bin for rubbish from the downstairs gallery and store room?

Temperature and humidity

What are the optimum temperatures the gallery should be kept at?

Max:

Min:

What is the optimum humidity that the gallery should be kept at?

Housekeeping

Name some other rules we have to prevent damage to our objects

- 1.
- 2.

Handling objects

How should objects be handled?

- 1.
- 2.
- 3.
- 4.

What should you not wear when handling objects

- 1.
- 2.

History of the Egypt Centre

It is important to know how the Egypt Centre was born as how we got our objects is a popular question you will be asked by visitors to the museum! Read the 'Henry Wellcome' and 'How the Egypt Centre was Born' information sheets and look at object labels in the galleries and answer the following questions:

1. Who collected most of the objects in the Egypt Centre?
2. Where and when was he born?
3. What did he collect?
4. What happened to the medical material he collected?
5. What happened to the non-medical material?
6. Who legally owns most of the artefacts we have in the Centre? (circle the correct one)
a. The University b. The public c. The Wellcome Trustees
7. When did the objects come to Swansea?
8. What was one of the conditions of the loan?
9. Who was the first honorary curator to look after it?
10. Where was the museum and what was it called?
11. Who took over as honorary curator when she retired?
12. Who purchased the bust of Nefertiti we have in the shop area?
13. When was the Egypt Centre officially opened?
14. Who was the first professional curator of the Egypt Centre?
15. Name two institutions that have loaned/given Egypt Centre objects?
16. What is the Egypt Centre logo?

Gallery cases connected with activities

House of Life

Find 2 objects that relate to Costume in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to Writing in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to Maths in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to Measuring in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to The Home in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to Senet in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Gallery cases connected with activities

House of Death

Find 2 objects that relate to Mummification in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to Servants in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to The Gods of ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to Weighing of the Heart ritual and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to the Animals of ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Find 2 objects that relate to Food and Drink in ancient Egypt and give your reasons why.

<u>Object One</u>
Name:
Location
Description
Why?

<u>Object Two</u>
Name:
Location
Description
Why?

Mummification: How mummies were made.

1. How do we know the process?

We get our information from a variety of sources, most of them not being Egyptian! Archaeologists and Egyptologists have, over the last few years, increased their knowledge through the examination of mummies and through experiments with embalming methods. One of the main sources of mummification was Herodotus, a Greek historian. Herodotus claimed to be an eye witness of the process of mummification. His *Histories* was written shortly after 450 BC.

The experiments and information archaeologists have subsequently discovered supports Herodotus' theories, especially his thoughts on the use of natron (misinterpreted by Pettigrew who thought that the mummies were soaked in a solution of liquid natron). Herodotus was however discovered to be inaccurate in one part; the length of time that was devoted to the drying out of the corpse. Experiments prove that after 40 days the decay of a body buried in natron is very little, so it would be pointless waiting for 70 days. The 70 days was probably for the entire process of mummification, rather than the drying out of the corpse.

The process of mummification in ancient Egypt (based on the most developed process in the heyday of mummification 18th – 20th dynasties)

Not long after death the body was taken to an *ibu* (place of purification), probably on the west bank of the Nile and far away from populated areas. The embalming would have taken place in the *wah*t or *per nefer* (an enclosure where a tent/booth would have been placed). By the Late Period this had developed into permanent mud brick buildings.

The corpse would then be stripped and washed with a water solution of natron. This was a ritual process signifying the rebirth of the dead as well as helping to keep the corpse a bit fresher for a bit longer. This is shown in images as the person kneeling or sitting while streams of water are being poured over them from above. The corpse would have been placed on a makeshift table (wooden board on 4 wooden blocks).

The head would have been coated in a molten resin (because of the heat) which would have preserved the features. The brain was only taken out after the 18th Dynasty. Before that it was left untouched. After the 18th Dynasty it became standard to extract it by pushing a pointed instrument up the nostril (breaking the ethmoid bone). A rod with a hooked end was pushed up and swished around the brain to slice the brain into pieces to remove in bits. (Occasionally the brain could be removed via the eye socket or a hole in the skull). The brains were then thrown away. The empty skull would have been filled with sawdust, resin or resin soaked linen.

Next the embalmer made an incision in the lower abdomen (usually on the left side) and pulled out the intestines and stomach. He punctured the diaphragm and removed the lungs and liver. The heart was usually left inside the body. If it was accidentally removed then it would be stitched back inside the body, occasionally after being wrapped in linen. This was because it was considered the seat of all intelligence. It was so important that there were 3 *Book of the Dead* spells (27, 28 and 29) dedicated to prevent the heart being taken away.

The internal organs were generally only taken out of the body after the 18th dynasty. Occasionally there is no incision found on the body (Great court ladies buried beneath temple of King Mentuhotep) but the remains of their internal organs were still inside their bodies. Others (in later periods) seem to have had their organs removed via the anus.

The organs once removed were generally dried out in natron, like the corpse. They were then anointed with sweet smelling ointments, coated in molten resin, and wrapped in linen before being packaged into 4 packages that might look a lot like human mummies and then placed in canopic

Jars, which in turn were placed in canopic boxes. By the 20th Dynasty we start to find evidence of the viscera being returned to the body, this would subsequently become more common (although we still find dummy canopic jars).

The liver	IMSETY	HUMAN HEAD
The lungs	HAPY	BABOON HEAD
The stomach	DUAMUTEF	JACKAL HEAD
The intestines	QUEBSENF	FALCON HEAD

Once this was complete the body would be washed with water, and then palm wine, be packed with Natron for desiccation, myrrh/frankincense for scent, and resin for disinfection. The body would be covered with natron, which would probably have been changed over at some point in the drying out period. It would have been laid on a table which would have been concave with a small reservoir at one end to catch the fluids which drained from the body. It would be left this way for approximately 40 days.

Once the body was dried out, it would be wrapped with resin impregnated linen to hold the bodies shape and deter insects. The body would have looked very dark, and up to 75% lighter. The embalming had to restore the desiccated human to a lifelike appearance.

The embalmer would have now removed all the stuffing – but did not dispose of it, as they would have little bits of the body stuck to it, which were needed to get into the afterlife. The body would have then been cleaned and re-stuffed permanently. Before the 21st Dynasty it would have been stuffed with resin soaked linen and bags of natron crystals, but after the 21st Dynasty with the mummified viscera and internal organs. The skins would have been rubbed in sweet smelling oils to return its suppleness – before the closing of the incision.

The incision would have been closed up with resin (NOT honey), and a wadjet eye would have been placed on it. Occasionally we find stitches, but they are usually large and very untidy. After the 21st Dynasty the face would often be stuffed with linen pads as well, although we find quite some evidence of over stuffing (Theban priestess Henttawy).

The ears, eyes and nose were plugged up with linen. The eye balls were pushed down into the eye sockets and covered with linen over which eye lids were drawn. Later artificial eyes were put in their place.

Finally the whole body was coated in molten resin to toughen it and waterproof it. The soles of feet and hands were stained with henna. Certainly from the New Kingdom onwards makeup was applied to women, and wigs were sewn on. Sometimes the whole body would be painted (yellow for women, red for men). The earliest mummies would be decked in jewellery.

The body was now ready for bandaging. The bandaging process could take up to 15 days because the appropriate magical prayers had to be said while it was being done. The bandaging helped the body retain its shape. The linen itself could have been cast off linen from households (tea towels!) or from textile shops. There were different kinds of linen for different kinds of wrappings.

Layer 1 - yellow (start with fingers and toes. These were often swathed in metal cases – then do the hands and feet.)

Layer 2 - long strip linen from right shoulder around head in fig of 8.

Layer 3 – arms and torso

Layer 4 – head down to legs until all limbs bandaged.

- shaped linen swabs were placed in appropriate nooks and crannies. Each layer was painted with molten resin to make wrappings stick together and improve rigidity.

Non royals were usually bandaged with their arms along their torsos (women along thighs and men over genitals) while royalty would have had the traditional crossed arms pose (from 18th Dynasty onwards). A red dyed shroud would then be placed over the whole mummy held in place by bandages running from head to toe.

Last of all a mummy mask would be placed on the mummy covering the head and shoulders. The features are rarely portrait, but this served to identify the mummy in the afterlife. The masks were usually made of cartonnage. Royalty would often have masks completely made of gold, while nobles may have just had it gilded, if they could afford to.

- Look through the step-by-step guide for Mummification
- Now find an experienced Volunteer
- Shadow them doing the activity
- Have a go yourself with visitors
- When you are ready, let the Volunteer Manager know and you can be assessed to lead!

Mummification KS2 Step-by-step guide for Leaders delivering to school groups



30 Minutes

EQUIPMENT NEEDED:

- **Mummy, bandages, natron, canopic jars, amulets, face**
- **Resource book**
- **Anubis & Sem Priest props**

Children learn about why the ancient Egyptians mummified their dead. They participate in role-play and become ancient Egyptian embalming priests using the props provided. Using a life-size 'dummy mummy' the children learn the art of deluxe mummification! This includes the removal of organs from the body, placing them in the correct canopic jars, drying and bandaging the body, and working out where to place the amulets on the body that correspond to the amulet positions on the display board. The children learn about the ceremony and ritual that was an integral part of the mummification process.

At key stage 2 this activity it is all about understanding the differing concepts of funerary preparation and the associated religious beliefs of the Ancient Egyptians.

 Developing Communication	Listening and discussing the ancient Egyptians belief in the afterlife as well as learning about the ancient Egyptian body and internal organs. Encourage children to increase confidence speaking using a growing vocabulary e.g. Intestines, amulets, bandages. Reading skills by reading the Opening of the Mouth spell.
 Personal and Social Education	Children need to listen to others, respect their views and wait their turn, developing interpersonal skills.

 <p>Developing Thinking</p>	<p>Children encouraged asking and answering questions throughout the activity. Do not just give information ask for predictions. Encourage them to express opinions, show curiosity and explore the amulets case as well as pointing out the mummification case, coffin etc are on display to help generate their ideas. Encourage them to consider the 'evidence' and info and ideas they have seen and heard to distinguish between 'facts,' beliefs, and opinions. They will have been exposed to films e.g. The Mummy etc and already formed ideas!</p>
 <p>Developing Number</p>	<p>Learners develop their number skills by using information, calculating, and interpreting and presenting findings. For mummification this can be done through discussing how long the mummification process took in total and then breaking it down into sections. You can also discuss that you would need a different volume of natron to cover the body, depending on if it was a child or adult. You can also discuss that the length of bandages would depend on the size of the body. Placing the amulets on the body also uses mapping skills.</p>

WARNING: Ensure you explain to the class that you should not attempt any of this at home. You should have no more than 10 children arrange them standing around the mummy bed.



- Welcome to the mummification tent.
- Why do you think mummification was performed in a tent?

Answer: The tent would protect the body from the heat, and allow air to pass through, taking away the bad odours that would accumulate.

- What would you like to name our mummy?
- The mummification we are going to perform is 'Deluxe' mummification! This could only be afforded by the wealthiest Egyptians.

- Do any of you know how long this process would have taken?

Answer: It took 70 days to perform the whole mummification process

- The first thing we are going to do is wash the body down with some natron. Natron is a naturally occurring substance found in the ground in Egypt. It's a bit like salt. This would help to dry any fluids that are in the body. **Show the real natron in a box. Get the group to rub the natron bars across the body**

- Next we are going to make a cut on the left hand side of the body

Do this with the knife

- Now we need to remove the internal organs, one at a time.

Canopic Jars

These are the jars that the internal organs were placed in once they had been washed with natron. The sons of Horus¹. Originally the stoppers of the jars were carved in the shape of the head of the deceased. From the 18th dynasty they were carved in the form of the four sons of Horus who had become the patron deity of their contents. The four jars are placed in the canopic chest. These four characters, Duamutef, Quebesenuf, Hapy and Imset are the 'Four Sons of Horus'.



Quebesenuf (Kebesenef)

INTESTINES – The intestine is placed into a 'Canopic Jar', but not just any jar. The intestine always goes into the jar with the head of a Hawk. The Hawk is called Quebesenuf (Kebesenef).



Du-a-mut-ef (Doo-a-moot-eff)

Duamutef the jackal-headed god looks after the stomach
STOMACH – The stomach always gets placed in the jar with the head of a Jackal. The Jackal's name is Du-a-mut-ef (Doo-a-moot-eff)



Hapy

Hapy the baboon-headed god looks after the lungs.
LUNGS – The lungs always get placed in the jar with the head of a baboon, (He isn't a pig!!). His name is Hapy!



Imset

Imset the human-headed god looks after the liver.
LIVER – The liver always gets placed in the jar with the head of a man. His name is Imset.

Point out the canopic jars in the Mummification case and where the Four Sons of Horus (Amulet and body coverings) are on display in the House of Death

Are there any more organs left inside our mummy? ***Get one of the pupils to have a look in the body***

HEART – The heart never gets removed. It was very important that you kept your heart with you. It would be weighed later on. ***Get a pupil to put the heart back into the body***

The Egyptians believed that you did all of your thinking with your heart. They also believed that all of your feelings came from your heart.

You know when you are watching something scary on television and your heart jumps, well, the Ancient Egyptians would have believed that that was your heart thinking!!!

- We have something else that has to be removed, can you guess what? (The brain was most likely removed first but we do it after the organs for added effect!! If you would like to remove it first this is fine!)

BRAIN - The Egyptians didn't know what this was, they threw it away!!

Get a pupil to hit the nose to break it and then remove the wool out of the mummy's nose with the hook

- Next the body would be completely covered with natron, from head to toe. The body would be left for 40 days. The embalmers would then start the next body.
- After the 40 days were over the natron would be removed from the body. All of the fatty tissue and muscle would have dried up. What remains is our mummy!! What is the mummy like now? Fatter? Thinner? Dried up? Our bodies are mainly made of water – think of a grape dried up to become a raisin! Our mummy needs fattening up and shaped to look like a beautiful person again.
- Next the mummy would be stuffed with all sorts of things – resin, linen etc and carefully wrapped with many layers of bandage – even each individual toe and finger.

Get the class to wrap the body, if there are a lot of children then get them to do it in two groups.

The wrapping process would take 15 days. Starting with the fingers and toes, and then the rest of the body. The bandages would be glued together with a 'gum-like' substance.

Amulets

Different amulets were placed on different parts of the body. See the wall chart next to the Amulets case in the House of Death. **Give the children an amulet each and ask them to look at the amulet board as well as the amulet case and try and place the amulet in the correct place within the mummy wrappings. Show the real bandage in a box.**

Wedjet Eye: Protected mummy from evil and healed wounds. *Forehead, throat, stomach*

Ankh: Symbol of 'life.' *Chest, feet*

Djed Pillar: Back bone of Osiris, means 'stable or enduring.' *Throat, chest, stomach*

Cat: Goddess Bastet. *Feet*

Hawk: Horus. *Chest, stomach*

Scarab beetle: Dung beetle rolling ball of dung God Khepre rolling sun across the sky each day, symbol of new life and resurrection. *Collarbone, chest, stomach*

Sons of Horus: Same as canopic jarheads to protect the organs. *2 facing pairs, chest or stomach below winged scarab.*

Uraeus serpent: Cobra Goddess, worn on King's crown to strike enemies of Egypt, also a symbol of rebirth shedding skin. *Forehead, neckline, chest, stomach.*

Papyrus Sceptre: Green vegetation symbolised new life and youth. *Forehead, throat, chest, stomach*

Heart: Most essential organ, seat of intelligence all feelings/actions/memory. *Neck, left breast, chest.*

We have one more important thing to do. The mummy needs a face, so that its Ba can recognise itself. The Ba would bring food to the mummy. I know it sounds silly, but the ancient Egyptians believed that mummies needed food!!

Place the face on the mummy

- Finally we are going to perform the 'Opening of the Mouth' ceremony. Show the picture in the resource book. Explain it was to make sure the mummified person would have all their senses in the afterlife.
- **Place the 'Sem Priest's' outfit on a child and the Anubis head on another child. Ask another child to read the words on the 'Opening of the Mouth' laminated sheet. The Sem Priest should touch the eyes, nose, ears and mouth of the mummy with the black wooden tool, shaped like the leg of a bull.**
- You can extend the opening of the mouth ceremony with some children bowing to the mummy as mourners.
- Why did Ancient Egyptians mummify their dead?
It was believed you needed a perfect body for the afterlife, which is why the process took so long. 70 days. Mummification protected the body.

Don't forget to mention objects to do with this activity that can be found around the gallery. (amulets, mummified baby, canopic jars, bandage, mummy tag, face masks, coffin, Ba Bird etc)

Senet: Board game in House of Life

Extra information about Senet (The Passing Game)

The game dates from the 4th millennium BC to the 3rd century AD. It died out, like much of ancient Egyptian culture, with the Christian era. The earliest known examples of senet boards come from 1st Dynasty tombs at Abu Rawasch though it probably dates to the Predynastic times.

There are over 120 games known in museums throughout the world.

Senet may well have been a game played in everyday life, for fun. However, it also seems to have had a religious meaning, regarding funerals and Hathoric rites connected with funerals. Often games of senet were placed in tombs. Tutankhamun, for example had 4 games in the tomb with him.

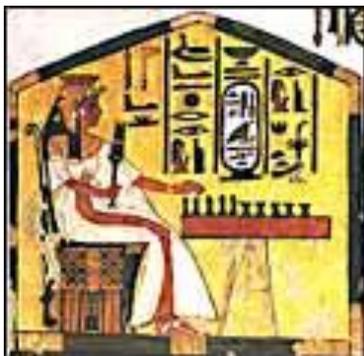
Coffin Text spell 405 states that senet is a means of the dead communicating with the living. In 1019 the mobility of the deceased in the necropolis is compared to a god travelling across a senet board.

The game of senet was connected with obtaining the afterlife. On several tombs from the 6th Dynasty onwards the deceased is shown playing against no visible opponent. They may be playing against the powers of the beyond. The game is referred to in Chapter 17 of the *Book of the Dead*. From 19th Dynasty scenes of senet playing often incorporated into text of *Book of the Dead* 17. The beginning may be translated as : *Spell for going forth by day, assuming whatever form one will, playing senet, sitting in a pavilion, going forth as a living soul....* Illustrations associated with *Book of the Dead* 17 sometimes show the deceased playing senet. Piccione believes that senet was played in or near the tomb in a pavilion. There are graffiti senet boards in tombs, presumably for games played by the living. At Beni Hasan there is a graffiti senet board near a depiction of a game painted on a tomb wall. Piccione suggests that the game allowed the living to contact the dead.

From the 20th Dynasty the game of senet was described on sets of papyri describing the journey through the underworld called 'The Great Game Text'. Such an example is P. Turin 1.775. It has been suggested that living people played senet to achieve unity with the sun god before they died. 'The Great Game Text' mentions boards in which all the squares are decorated.

The 30 squares of the senet board are also associated with the lunar month.

It is usually agreed that the squares had metaphoric meaning associated with the afterlife. We cannot be certain but the following suggestions are usually given: the counters may represent the *ba* travelling between heaven and earth.



Queen Nefertari playing senet

Many boards do not have decorated squares. Boards of the Old and Middle Kingdom sometimes had numbers but from the New Kingdom onwards certain squares were decorated with religious symbols. These were not always the same on every board.

On some Old and Middle Kingdom boards each player had seven pieces but by the New Kingdom each player had five pieces. In the earlier games you would start on the House of Rebirth.



This is the House of rebirth. Sometimes there is frog on this square since frogs are to do with birth.



The House of happiness or House of Rejuvenation.



The House of water or the waters of chaos. One of the game texts says of square 27: "I seize his game pieces so that he might drown together with his game pieces. I throw him into the water." People who failed to achieve the afterlife would be drowned in the waters of the netherworld.



The House of the three truths.



The House of Re-Atum. (Some versions have Isis and Nepythys instead of two seated men). The replica of the board in Tutankhamun's tomb has the standard funerary offering on it showing it was made for the tomb. Such formula are often put on boards from the 18th Dynasty onwards.

It seems that one of the rules used to be that if you landed on the last three squares you would have to throw the right number to exit- a 3 for the third square, a 2 for the second square and a 1 for the last square.

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- Look through the step-by-step guide for Senet
- Now find an experienced Volunteer
- Shadow them doing the activity
- Have a go yourself with visitors
- When you are ready, let the VM know and you can be assessed!

Senet KS2 Step-by-step guide for Leaders delivering to school groups



30 Minutes

**EQUIPMENT
NEEDED:**

- *Senet* board
- Resource book

Senet was one of the most popular games in ancient Egypt and was probably played on a day-to-day basis by both the rich and the poor. It also had significance as a funerary item. Tutankhamun had four sets of senet boards in his tomb, and a replica of one can be seen in the gallery. Children will first learn about the rules of senet as well as its place in Egyptian society as they play. Children will play senet in teams problem solving, developing strategy and team building skills as they compete to win! Over 120 Ancient Egyptian games have been found and are now in museum collections around the world. Senet is likely a game that was played on a day-to-day basis, like snakes and ladders. We have a replica of a *senet* board found in Tutankhamun's tomb with throw sticks instead of traditional dice.

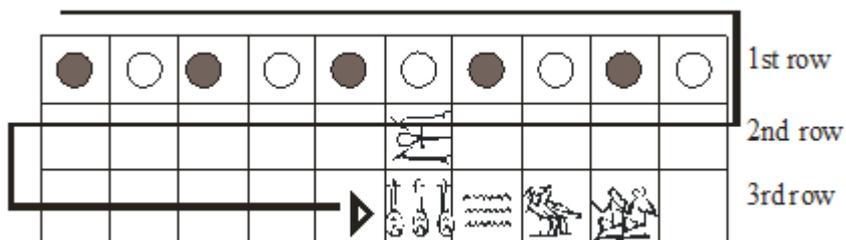
If children are very young keep the rules simple and explain things clearly as you go along. Children are very good at quickly picking up rules of games!

 <p>developing thinking</p>	<p>Children encouraged to ask and answer questions, express opinions. Identify and make links with prior skills and knowledge, build on this. Ask how many play board games? Which ones? Is <i>senet</i> similar to snakes and ladders? Identify and describe similarities and differences by making comparisons, explain patterns and relationships. Encourage children to show curiosity and explore, generate imaginative ideas i.e suggest they look at the game pieces in the display case and at the replica game to find more information about games played and why games would be placed in the tomb! Make and try out simple predictions.</p>
 <p>developing number</p>	<p>Use numbers in the game and get children to count out the number they scored on the dice. Solve number problems as they need to work out their move on the board. Move the game pieces to correspond with the number on the dice. Building strategy skills, do they build a wall? Do they ‘buddy up’ for protection?</p>
 <p>developing communication</p>	<p>Encourage children to listen and respond to others, ask and answer questions. To build on vocabulary with unfamiliar words e.g. Tutankhamun, <i>senet</i>. Encourage children to differentiate between text and pictures, find simple information. To read text, suitable for their ability and to look at the symbols on the board and explain what they mean.</p>
 <p>personal and social education</p>	<p>Build team work skills. Have to be polite, listen to others and wait their turn to throw the dice and follow the rules as a team! Help them to encourage one another and help team mates make decisions that will affect the team. They have to also learn to accept disappointment if they loose!</p>

Show the children the replica *senet* game from Tutankhamun’s tomb.



- The object of the game is to move your pieces around the board and off the board before your opponent.
- Explain that we are not sure of the exact rules of *senet* but we will show you the way that it was likely played.
- This is the starting position of the pieces and the direction they move:



- Split the children into two teams. Explain that it is up to each team to ensure that everyone gets a go at throwing the dice and moving the pieces. Assign each team a colour, blue or green.
- Explain that each team will take turns throwing the dice but different things happen depending on what is thrown.

1, 4, 5 or 6 – The team keeps the dice and has another go.

2, 3 – The team must pass the dice to the other team after their go.

This may seem complex to the children at first but assure them they will soon get the idea and you will help them.

- You should next explain that it is possible to jump on an opponent's piece and knock them back to where you have just moved from. Setup an example where you throw for example a three and land on your opponent's piece. Then show the children that their opponent's piece moves back.
- You should explain to the children about the safe squares and the square which is dangerous and should be avoided.



The house of rebirth – This is a safe square. Your opponent can't jump on your piece and knock you back if you are on this square.



The house of happiness or rejuvenation – again you are safe and cannot be knocked back.



The house of water or waters of chaos (The Nile). If you land on this square you drown and must move your piece back to the house of rebirth square.



The house of the three truths – again you are safe and cannot be knocked back.



The house of Re-Atum – another safe square.

- Get each team to throw the dice (or throw sticks if prefer) and the team with the highest score starts.
- The long version of the game requires you to move each piece along the first row then onto the second row and finally the third row. Plus you are required to get the exact number to move your piece off the board. You are also not allowed to have more than one of your pieces on each square.

To make the game quicker you can get each team to start each piece on the far right square of the second row. You can allow a piece to move off the board with a dice throw that is greater than the number of squares that are still needed to move off the board. Finally you can also allow the team to have more than one piece on a square at a time. These are all shortcuts!



- If the children understand the game well and a wall forms (three of one teams pieces in a row), explain to the children about walls. When one forms the other team cannot jump over it. Of course eventually the team that has formed the wall will have to move the three pieces that make up the wall in order to win the game. ***Do not explain this rule if the children are still struggling to come to terms with the other rules.***

Q&A

- The game dates from the 4th millennium BC to the 3rd century AD. It died out, like much of ancient Egyptian culture, with the Christian era. The earliest known examples of senet boards come from 1st Dynasty tombs at Abu Rawasch though it probably dates to the Predynastic times.

Senet may well have been a game played in everyday life, for fun. However, it also seems to have had a religious meaning, regarding funerals and Hathoric rites connected with funerals. Often games of senet were placed in tombs. Tutankhamun, for example had 4 games in the tomb with him.

- Coffin Text spell 405 states that senet is a means of the dead communicating with the living. In Coffin Text 1019 the mobility of the deceased in the necropolis is compared to a god travelling across a senet board.
- The game of senet was connected with obtaining the afterlife. On several tombs from the 6th Dynasty onwards the deceased is shown playing against no visible opponent. They may be playing against the powers of the beyond.
- Ideas for objects connected with the activity:

House of Life:

Game pieces in the games case, replica senet board game show children the throw sticks.

Materials Board: Handling Objects Safely

We have to impose certain restrictions in order to protect the collection.

- ❖ Handlers must not eat or drink near the objects in the museum and are asked to conduct themselves in an orderly manner.
- ❖ Handlers should not smoke immediately prior to handling the objects.
- ❖ Staff or Volunteer will supervise all visitors at the materials objects at all times and closed circuit television with video recording is also in use.
- ❖ All persons handling objects must take good care not to damage or impair any object and follow the *safe handling procedures* set out below.
- ❖ If any object sustains damage the incident must be reported to museum staff immediately.
- ❖ Personal photography is not permitted, nor is the making of wax or other impressions (including rubbings), except at the discretion of the curator or assistant curator. Any requests for consideration should be made in advance.
- ❖ Pencils only may be used. Pens and other materials which may stain the artefact should be kept away from the working area.
- ❖ No metal measuring instruments (e.g. calipers, rulers) may be brought into contact with object.

Safe Handling Procedures

- ❖ Place bags and personal belongings safely under the table to avoid tripping over them (Volunteer belonging to go into stock room).
- ❖ Remove large pieces of jewellery or cover rings, watches, necklaces etc. that may cause abrasion or chipping.
- ❖ Ensure that sleeves or fastenings of clothes don't catch on the object and avoid clothing that will restrict your movement or are likely to trip you up.
- ❖ The lint-free cotton gloves provided must be worn in order to handle objects. Fingerprints damage objects because the acids and salts in perspiration have corrosive properties. Porous materials such as plaster, marble, paper, unglazed pottery, and ivory can also be damaged by grease from the skin, which will stain the object and attract dirt from the air.
- ❖ Objects should only be placed on the plastazote never in direct contact with the table.
- ❖ Try to familiarise yourself with the structure, fabrication and condition of the object, making note of any areas that may be vulnerable.
- ❖ Treat all objects as fragile. Hold and support more vulnerable areas by the heaviest part of their body and as near to the centre of gravity as possible.
- ❖ Only pick up one object at a time.
- ❖ Cradle the object. Don't pick objects up by the decorative parts of their structure, handles, knobs, rims or legs.
- ❖ Do not place objects in direct contact with each other because this will cause abrasion damage.

For each object on the materials board you should cover:

- What is it?
- What is it made from?
- Can you date it?
- Where can you find examples in the museum?
- What other information can you give about this object?

- Look through the step-by-step guide for Materials
- Now find an experienced Volunteer
- Shadow them doing the activity
- Have a go yourself with visitors
- When you are ready, let the VM know and you can be assessed!

Materials KS2 Step-by-step guide for Leaders delivering to school groups



**30
Minutes**

EQUIPMENT NEEDED:

- Materials board
- Gloves
- Resource book

The Egypt Centre is one of the few places where visitors are allowed to handle ancient objects. This activity enables the children to come into close contact with genuine ancient Egyptian artefacts, some possibly 6,000 years old, something they can't do in class! Children are encouraged to discuss what they think the objects were made of and what they were used for, making comparisons with modern day alternatives. They will learn about the various materials used by the ancient Egyptians and discover how they were manufactured. They will also learn about the importance of preserving artefacts, our safe handling procedures and why they have to wear special gloves for this activity. Younger children may find holding the objects with gloves and putting gloves on difficult. Only simple explanations will be needed. Older children can be given more complex information to process!

The number of children in a group for this activity should ideally be between 6 and 8.

EVERYONE must be seated to do this activity

 <p>developing thinking</p>	<p>Children encouraged to ask and answer questions, express opinions. Get children to imagine using one of the artefacts in ancient Egypt. For example with the headrest ask them if they think it would have been comfortable. Problem solving. Again don't just tell children the facts but try to encourage them to work things out for themselves. Ask them what type of material it might be made of. Is it sharp? cold?, etc. If it's wood you could ask them if they think wood would have survived for so long in Wales. For the moulds you could ask them to guess what the object is. If they don't know you could ask them if they know about jelly moulds. In other words, give clues. Get the children to think about preventative conservation and why are they wearing gloves and holding the objects carefully over the table?</p>
 <p>developing communication</p>	<p>Encourage children to listen and to speak. Don't just tell children facts but encourage a response about the different types of materials available and made by the ancient Egyptians. Encourage children to increase confidence speaking using a growing vocabulary e.g. faience etc. If children can read get them to read out loud any information they find about the materials.</p>



personal and social education

Learners should be given opportunities to promote their health and emotional well-being and moral and spiritual development. Materials contributes to learners' personal and social education by providing opportunities to helps them to analyse and interpret information presented to them on environmental and other twenty-first century issues such as the use of plastics and recycling materials. Encourage children to think about real-life problems e.g how materials are made, quarried, traded. Encourage them to listen and help one another, being polite, turn taking, highlight a positive attitude and positive behaviour. The children need to be given confidence to answer questions and ask you questions too!



- You should first tell the children to sit down and ensure their chairs are as close to the table as possible. Move all other objects besides the materials tray off the table so that each child has an area on the cushioning mat to place their hands.
- Instruct the group that they must not touch anything until you say so.
- Build up the privilege of holding ancient objects! Get everyone to put on the gloves and explain that the objects are very old and we must be very careful to not damage/break them. Tell the children not to worry – don't be too scary!
- Use the material resource folder to find out information about each object. Ideally you should ask the children what it is made of and what the object was used for. The amount of information and technique of delivery should be modified to suit the age of the group. For younger children keep things simple and ensure you relate new things to something that will already be familiar to them.
- There are information sheets about the objects on tray 1 and tray 2 for you to read. However, the information you give has to be appropriate to the ability of the children in the group.

Remember to **ask** the group questions **DO NOT** just bombard them with facts, figures and dates.

- What do you think that this was used for? What do you think this is made of? Which object do you think is older? (Gauge you group as this may be a bit advanced for some). What do we use today instead of this?
- Demonstrate to the children how they should hold an object, pass it on carefully and keep their hands over the black foam mat on the table.
- If an item is dropped by accident, don't worry, just replace it in the tray but do inform a member of the Egypt Centre staff once you have finished the session. The object can be checked for any damage.
- On completion of the activity ensure all the objects are back on the material tray and ask the children to rollup the gloves and place them back in the plastic bags.
- If additional chairs have been used for this activity, please ensure you move them back to where they came from.

Handling Tray 1 (You don't need to say all the information)

Faience

Faience was made from crushed sand with lime and natron or plant ash. It was modelled into the desired shape or pressed into a clay mould and fired. The most common colour was blue or green, although other colours were produced. The blue colour resembled the precious gemstone *lapis lazuli*. *Faience* was used as jewellery, models, vessels and amulets. Moulds for faience were usually made of pottery. Hundreds of these were found at the royal site of Amarna.

The Egyptian name for faience was *tjehnet* which means shiny or scintillating, like the moon and stars. The epithet *tjehnet* was bestowed on many gods and kings. Faience was also associated with the goddess Hathor who held titles 'Mistress of Turquoise' and 'Mistress of Faience'. She was associated with light, rebirth and fertility. It seems that faience was not just used as a poor substitute for lapis lazuli but was deliberately chosen for its religious connotations. Many of the faience objects in the *House of Life* thus have religious connotations.

If the children are advanced you could mention how faience is shiny and that this linked to the gods who were also shiny like gold, silver and lapis lazuli (all of which when polished were shiny).

W5091 The Egypt Centre, like many other museums with Egyptian antiquities has a large number of 'shabtis'. We have around 350 of them. The Centre refers to this group as 'shabtis' but it could be argued that this is not the right term. They may also be called 'ushabtis' and 'shawabtis'. The term 'shabti' is usually given to late Middle Kingdom and New Kingdom figures, 'shawabti' for 17th Dynasty figures and 19th Dynasty figures largely from Deir el-Medina. 'Ushabti' is given to the figures from the 21st Dynasty onwards, that is, from the Third Intermediate Period. The word 'shabti' may be derived from the Egyptian word for 'stick', or alternatively the word for food and 'Ushabti' has been connected to the verb 'wesheb', 'to answer'.



Faience Shabti 2700 years old. You can see similar ones downstairs and in the faience case upstairs. This is probably a Third Intermediate Period Shabti. The shabti was a personal substitute for the deceased, so shabtis are found in temples to stand in for the deceased and may also do the work for the deceased in the afterlife.

Ask: What is this? What does it look like? (This question if they are struggling to answer the question). What is it made from? It was a servant in the afterlife who would do the bidding of the dead person. This is because one idea of the afterlife was that it was very much like life on earth so you had to cook, clean, farm etc. Shabti servants would leave you time to relax in the afterlife. If they are advanced then you could mention how faience is shiny and that this linked to the gods who are described as shiny (like gold, silver and lapis lazuli (all of which when polished were shiny)). You can date it by its shape.

Other objects in our gallery

Shabtis in large case showing faience objects, also in technology case by brick mould

Shabtis downstairs in House of Death

Faience amulets downstairs

Faience items in glass case other side of body adornment case

Bead necklaces

There are four sets of original beads that have been restrung in modern times.

Some beads are made of stone, others faience and shell. These are very difficult to date but could be anywhere from 3000 BC onwards. The faience ones would have been manufactured by putting the malleable faience around a stick which would then be fired. The stick would be burnt off and the beads could be broken into lengths as required. The small stone beads would be drilled using small flint drill bits.



Ask what do the children think they are made of? They are made of stone, faience and shell. The strings are modern. Ancient thread would have been made of linen. They are probably about 2000 years old but we can't tell for certain as similar beads were made over a long time spell..

Other objects in our gallery

Collars around the gallery

Carnelian necklace and other jewellery in the adornment case

Stone

Stone was used for making tools, vessels, weapons, statues, buildings, tombs and jewellery. Egypt had a wide range of different types of stone. There were hundreds of stone quarries across the deserts. Stone tools were used as knives, picks, etc. Embalmers used stone knives. Arrowheads were often made of

stone too. *Stone* was expensive for building as it had to be quarried, transported and then cut into shape. Only royalty and the rich could afford stone buildings. Most people lived in mud-brick houses.

EC5962 Flint.

The Egypt Centre has a number of objects, which are made from flint. Of course this is not surprising since until the New Kingdom, Egypt was very much a civilization of flint. It was used alongside metal for tools as well as being specially chosen for certain rituals.



The importance of flint is particularly clear in the Predynastic and early Dynastic periods when it was used to manufacture beautiful knives sometimes partly covered in sheet gold (for example the knife in the Myres collection at Eton College). Fragments of such knives are displayed in the Egypt Centre (unfortunately without the gold covering). Bracelets too were skilfully crafted from flint into the Old Kingdom (there is an example in the Egypt Centre's 'Egypt Before Writing' case), as was the instrument used in the opening of the mouth ceremony.

In later times the skill displayed in the manufacture of flint artefacts seems to decline, but the use of flint was far from over. Flint knives, for example, continued to be used into the New Kingdom for the ritual slaughter of cattle. In the Egypt Centre we have flint sickle blades from the New Kingdom town of Amarna. We do not know if such blades were used in the actual cutting of corn or if they were used for ritual purposes. Perhaps they were used for both. Stone knives were also used to make the incision for embalming.

Stone tools were also used for more clearly secular activities. Stone tools are mentioned as barbers' knives in the Amarna Letters and excavations at Karnak, Kahun and other Egyptian settlements have shown that flint was widely used. We have a Middle Kingdom flint pick from Armant in the Centre. The material even appears in Middle Kingdom cosmetic boxes, perhaps used for shaving. Thousands of flint tools were found on the Middle Kingdom town site of Abu Khalib, perhaps used in bead manufacture.

Modern Egyptologists tend to distinguish flint by its typologies. The Egyptians were interested in colour and distinguished three types: clear (*ḥd*); dark or black (*km*); and shiny (*ṯhn*). The knives mentioned above tend to be made of pale flint, at least until the Middle Kingdom.

Sometimes the material occurs in a strange context for which it is difficult to see a purpose. Newborn infants for example, were buried at Deir el-Medina in clay pots with a flint. Perhaps the flint was used to cut the umbilical cord. It is also mentioned in medical papyri and for circumcision. All these aspects would require a clean, sharp cut, which flint is better suited to deliver than metal. Indeed, even today, some forms of eye surgery are carried out using obsidian as it gives a cleaner cut than steel.

The Egyptian name for flint was *ds*. In ancient Egyptian texts, some deities have teeth or claws of flint. Many of these same deities also spit fire. A sceptre of *ds* is mentioned in Chapter 125 of the *Book of the Dead*. In the same book the enemies of the gods may be defeated with flint. For example the serpent Apophis is killed with a *ds* lance. Flint is used to indicate invincibility and durability.

The Egyptians, it seems, used flint tools longer than other Mediterranean civilizations. This may have been partly due to the availability of the raw material or perhaps it was due to the perceived special qualities of durability and invincibility. Flint is actually sharper and lighter than metals, so if you wanted a light, sharp arrow, flint would have been better than metal.

The patina, surface discoloration due to chemical changes resulting from weathering, suggests this is Palaeolithic. We cannot be sure where it comes from. It has Seman marked on it. Nazlet el-Seman is a village by the Giza Pyramids. It may have been found there. It may be a tool or it may be a waste piece. It is at least 50,000 years old, and is the oldest piece on our board.

Ask If children have done mummification in the morning ask where flint has been used elsewhere. If you are in the morning session you could tell them (if they don't know) that it was used in mummification and used to make the first cut and that they should remember this to impress the person in the afternoon session.

Other objects in our gallery

The stone hand axe 250,000 years old at least in Predynastic case.

Flint arrows in the stone case

Flint knives in the technology case

W239

This travertine bead could be almost any date in the Dynastic Period but the large size suggests it is Late Period or Graeco Roman (so it is about 2000 years old). The material is often called 'alabaster'. However, because it is not the same time of alabaster as that which comes from Italy, so some people don't like to use this term. They prefer to call the material travertine or Egyptian alabaster. It could have been one of 15 on a single necklace. Imagine how heavy that would be!



Ask What do you think it is? How might it be used? What material is it made of? How do you think it might have been made?

Other objects in our gallery

Travertine/alabaster in the stone case and in the body adornment case

EC4006. This is a **travertine cosmetic container** or makeup pot and would have been used to hold eye makeup. This piece is about 3000 years old and is made of travertine of Egyptian alabaster. If you look carefully then you can still see the remains of the makeup that was last stored in it. If visitors are interested you could show them the pictures of how such a pot would have been made (these images are in the red folder). The outside profile of this vessel suggests it might be Middle or New Kingdom but the vertical hollowing narrows it down to New Kingdom. Men and women wore eye makeup. Black eye make up would be made from ground up galena. In the earlier periods green malachite would also be used. Why was eye makeup used? Early sunglasses to stop glare!



be

Denys Stocks (2003, *Experiments in Egyptian Archaeology* pp139-168, we have the book in our library) describes how stone vessels were made. He states that the outsides of vessels were shaped with flint tools. The interiors of some vessels could have been shaped using a tubular drill made of copper. Flint scrapers could then be used to undercut the shoulders on the inside. A borer could then be inserted to further hollow the piece. The borer gives the Egyptian hieroglyph for craftsman.

Ask What do they think it is? What did we look at earlier that may need a pot for storage? Can you see others in the cases around us? Older children and adults might like to compare this with the Middle Kingdom cosmetic cases in the stone case. These have the same outside profile but are not vertically hollowed.

Other objects in our gallery

The makeup pots opposite the materials board (in the body adornment case)

The alabaster pots at the back of the gallery in the stonework case.

Wood

Large pieces of timber were expensive because large trees rarely grew in Egypt and there were no big forests. However, there were lots of little scrubby trees. Therefore, the Egyptians were experts at joining wood! Wood from fruit trees was used for furniture and buildings, coffins, weapons, tools, statues and boat building. It was also used for lighting fires. Rich and poor people both used wood, it's just that only rich people could use the large beams of imported wood such as cedar of Lebanon. Small strips of wood were joined together to form larger pieces. If you look in the technology case you will see how a coffin has been made from several small fragments using joints and wooden dowels. Veneers of expensive woods or faience were sometimes applied. In some cases gold gilding was applied. Often gesso (plaster and gum) was applied and then the whole painted so that you couldn't see the joints.

The finest timber, such as cedar (including the famous Cedar of Lebanon) and pine was imported and thus used by the rich. Most of the objects in the wood work case were found in tombs. We do not know what type of wood these objects are made of, however, sycamore fig, acacia, tamarisk and carob wood was widely used for objects in ancient Egypt and grew in the country. Christ's thorn was also used for smaller objects. Date palm also grew in Egypt and was used for building materials. If you look in the metalwork case you will see some of the implements used for working wood. Axes were used for chopping down trees, chisels for shaping the wood, etc. The lathe was probably not introduced until the Graeco-Roman period. Additionally, flint tools were used. You can see these in the stone case.

The types of object you see here are largely from tombs of the elite. Some pieces may therefore be funerary items (such as the lion bed legs) rather than everyday objects. Although there are several pieces which are parts of furniture Egyptians had very little furniture in their homes. Chairs and beds would have only been used by the elite. Most people would have slept on a mat on the floor.

W370 This is a wooden headrest. It is probably made from cedar or pine. Let the class know that to have an imported piece of wood would have shown wealth. However if this small item made from wood found in Egypt poorer people could have owned it.



With the exception of AB80, which was donated to the Egypt Centre by the University of Wales, Aberystwyth, the headrests on display in the Egypt Centre were purchased by Sir Henry Wellcome at a Sotheby auction in 1906. They had been part of the collection owned by Robert de Rustafjaell.

Instead of pillows, the Egyptians used headrests of wood or stone. Headrests have been found in tombs from the beginning of the Old Kingdom. Usually they consist of a curved upper piece on which the head rested, mounted on a pillar set in a supporting base. They have not only been found in graves but also in the houses of workmen. The importance of the headrest is shown by the fact that even the poorest graves at Giza had a brick or rough stone block beneath the head of the dead person.

Symbolically, the headrest was connected with the sun, which like the head was lowered in the evening and arose in the day. The headrest represents the hieroglyph for the sun in the horizon, the *akhet* sign:



A headrest from the tomb of Tutankhamun has two lions upon the base. Two lions were said to guard the sun's passage across the sky. Because of the connotations of renewal and rebirth, headrest amulets are also found and they are mentioned in the *Coffin Texts* and Spell 166 of the *Book of the Dead*. Headrests with fluted stems are typical of the Old Kingdom. Alabaster examples are known from the 5th Dynasty, although the most common type was of wood.

Ask what this is made out of? Also and maybe a more stretching question, ask what it is/was used for? If they can't guess show the replica and see if that helps then prompt them with ideas like what do you use at night? What do you sleep on? Etc.

Other objects in our gallery

The headrests in the wood case (opposite the Amana case)

Other objects made of wood in the woodwork case

Wooden objects in the technology case.

Metal

Different types of metal used by the ancient Egyptians include gold, silver, copper, iron, tin, bronze, lead and platinum. Metal was used to make weapons, jewellery, coffins, musical instruments, amulets, statues, and mirrors. Crude metal was melted and molten metal was sometimes poured into a mould (arrowheads, statues). Some tools and weapons, such as flat axes and chisels) were made by open-mould casting. Lots of craftsmen needed metal tools they include carpenters, stonemasons, and leather workers. Also barbers, doctors and butchers needed metal tools.

Metal may have been first introduced into Egypt because of its exotic or attractive qualities. Early metals were not superior to flint. A freshly knapped piece of flint, for example, has a sharper cutting edge than metal. Metal smelting was closely connected with kings who boasted of smelting certain metals. The king himself was at least partly a god and so it would be natural for him to control the smelting of metal. The extraction of metal ores was also in the hands of kings.

The most common metal in ancient Egypt was copper. This often had a natural amount of arsenic in it which made the copper harder. Arsenic was also sometimes deliberately added. Mirrors in particular had arsenic added to them to give a silvery sheen to the surface. Copper was worked in ancient Egypt in the Predynastic Period. It was mined from the Eastern desert and Sinai. Bronze is an alloy of copper and tin. It is harder and sharper than copper. Although bronze is occasionally known from the Old Kingdom it was not common until the New Kingdom. Iron was not common until the Graeco-Roman period. Although an iron dagger is known from the tomb of Tutankhamun it is believed to have been a gift from a foreign king. There are occasionally earlier instances of iron in Egypt but this is believed to be meteoric iron. Gold was used for jewellery and was also mined from the Eastern desert. Silver was used from the Predynastic Naqada II Period and was imported from Crete, Mesopotamia and Cyprus. Until the New Kingdom it seems that silver was more expensive than gold.

Certain metals were particularly linked with gods. The blessed dead and some metals were shiny so placed in tombs. It was said that gold was the flesh of the gods and silver was their bones. The sun-god Re was sometimes referred to as 'the mountain of gold'. Hathor was often called 'The Golden One'. Gold was also important because it did not tarnish and for its shininess. Gold, was shiny like the blessed the dead. All these reasons may explain why mummy masks were sometimes gilded (see *House of Death*) and why embalmers workshops were known as 'The House of Gold'.

The first iron to be used by the Egyptians seems to have been meteoric iron. This naturally had magical connotations. Its Egyptian name was *biA*, which also means wonder. It was thought to have come from heaven. In the *Pyramid Texts* *biA* is said to have come from Seth. The bones of Seth were sometimes said to be made of iron. Meteoric iron was important in the *Opening of The Mouth Ceremony* when an adze with an iron blade was used.

Some of the items on display in the metalwork case were made using a simple one-piece mould. At other times two-piece moulds might be used. Other, more complicated, asymmetric items would be made using the lost wax technique. The latter technique can be simplified as follows: A representation of the object to be made is first produced in wax. A clay mould is then formed around the object, leaving a hole in the clay. The wax object is then melted and poured out through the hole. Molten metal can then be poured into the mould to replace the void left by the wax. Once the metal has hardened the mould is broken. A more detailed description of this technique can be found in Ogden (2000, 157). There are also pictures in the information sheets accompanying the metal working case.

EC2081 Coffin clamp, 2nd century AD from cow burial 13 at Armant, in a burial place for buchis bulls. Excavated by the Egypt Exploration Society. Such items were used to keep the body in place. Made of copper alloy. Cows



would have been placed on a board. Metal clamps like this one would have been placed around them and then linen bandages tied across the body and threaded through the clamps to ensure that the cow stayed in place. A papyrus called the *Apis Papyrus* describes the rituals for the mummification of the Apis bull. It seems that similar rites were also carried out on the Buchis and the mother of the Buchis. The Papyrus states that 22 coffin clamps should be used. Excavations have shown that most of the burials of the Buchis and the mother of the Buchis used between 21 and 23 clamps. The Buchis bull was considered to be the incarnation of Montu and Re and the centre of the Buchis cult was at Armant. The bull was so important that even its mother was celebrated and buried in a group of tombs at Armant known as the Baqaria.

Ask What do you think it is? What was it used for? What is it made of? In an afternoon session you could prompt them asking what process (mummification?) they learnt this morning that may have used it? It is a coffin clamp. It was used to secure a body that had been mummified. As if you can imagine it took

14/15 days to bandage a human how much longer would it take to bandage a huge bull?! You can show them the picture of the bull burial to aid in description. It dates to the 2nd century AD so might be the youngest item on the table (the bead might also be the same date or younger).

Other objects in our gallery

More coffin clamps in the gallery downstairs in the animal case.

A coffin in House of Death

Mummies in House of Life (the snake) and animal case in death

Apis bulls on coffins downstairs in the animal case

Bull stele

Pottery

Pottery sherd from Amarna. Pottery is the most common item found from ancient Egypt because it is easily preserved. Some pottery was made of clay from the Nile banks. Earlier pots were hand-made before the development of the potter's wheel. The pots are shaped then fired to harden them. *Pottery* had many uses for rich and poor: vessels, models, offering trays, moulds, coffins, stools.

A potter is under (i.e. carries) clay. His lifetime is like that of an animal. Dirt besmears him more than a pig....His clothes are stiff from dry clay, his loin-cloth is like a rag. 'Satire of the Trades' Papyrus Sallier II quoted in Bourriau, 1981. This Middle Kingdom text shows the scribes attitude to the potter. While some potters owned land and houses, it appears that they were low on the Egyptian social scale. Most of those depicted manufacturing pottery are men though sometimes children are shown lending a hand.

In pottery manufacture, not only of the Amarna Period, the potters' first task was to 'puddle' the clay, spreading it out with their feet so as to break down lumps in the clay. At this stage additives are sometimes added to the clay to make sure it bonds. The pot would then be shaped on a wheel. It would then have been left to dry, where necessary painted and then fired in a kiln. Both wheels (Powell 1995) and kilns have been found at Amarna. Experimental work by Powell (1995) suggests the wheel would require the potter to have an assistant to ensure that it continued turning. Several kilns have been identified in residential areas (Nicholson 1989), both in industrial and private estates.

Paul Nicholson has carried out a series of experimental firings of pottery based on modern Egyptian potters, excavated examples and iconographic evidence (Nicholson 1995). The experiments helped explain the reasons for some of the ways kilns are depicted in Egyptian iconography. They also showed the ease with which large quantities of pottery could have been produced at Amarna.

The Egypt Centre has over 60 items of pottery in its collection believed come from Amarna. However, a number of these are single pottery sherds. Many of our pottery sherds are decorated with blue paint. Blue painted pottery is sometimes called 'Malqata wear' from the place where it was first found. Arnold and Bourriau (1993, 100) suggest the blue painted wares originated in Memphis. Such pottery dates generally dates from the mid 18th the late 20th Dynasty. It seems to have been made for festivals.

Blue painted ware seems only to have been made at royal residences or palaces and apparently by a small number of craftsmen in a few workshops. However, see Bourriau et al (2000, 140) which states that at Amarna blue painted pottery was also found in poorer areas. The main difference in pottery between rich and poor areas appears to be in the quality of decoration. It was used in the house, in religious activities and in tombs and traded in its own right rather than as a container.

It is believed that such pots were decorated before firing. The blue paint is cobalt blue. Red and black derived from oxides of iron (ochre) and manganese. Cobalt may have derived from the deposits of alum which occur in the Kharga and Dakhleh oasis. The decorative elements appear to imitate floral garlands which were placed around vessels (Freed 1982, 38). Some (though we have none in the Centre) also show animals or gods such as Bes. The garlands, it has been suggested, were perhaps to cool or maybe simply provided an aesthetic experience. It has also been suggested that the predominance of the lotus may be related to the possibility that wine contained within such vessels was infused with lotus. Lotus contains a

narcotic substance which perhaps was used to enhance the effects of the alcohol. Other floral motifs show the white lotus, the cornflower, poppy, mandrake and chrysanthemum (Freed 1982, 38).

The Centre also has a wine jar, W960 which is on display in the upstairs gallery. Wine labels are inscriptions painted on the shoulder of Amphora giving the year in which wine was made, by whom and where. Ours has an inscription written in hieratic stating that the wine comes from the western Delta and was bottled in the 12th year of the reign of Akhenaten. Wine labels were not only found in the main city but also in the Workmen's Village. Leahy (1985, 66) believes that this does not mean the inhabitants could afford wine but that perhaps the jars were reused.

EC4005. Pottery from Amarna about 3300 years old.

Ask What do you think this is? What is it made out of? Once these questions are answered (is it a fragment from a pot about the same size as large Amana pot. It is made of Nile mud). Notice the *rilling* on the side of the pottery, the potter's fingers made this as he made the pot on a wheel you can then ask what are the marks on the inside of the pot (you could, as a hint, run your fingers along each groove to try to get them to say they are finger marks). Oxygen during firing turns the clay red, notice the black inner part of the pottery, which did not come into contact with oxygen. If they ask why one side is shiny and the other not, it is because the outside was rubbed with a smooth pebble before it was fired to get a different finish. It also has decorative markings on the outside made with either a reed/stick or a flint



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Other objects in our gallery

The large pot in the Amana case is the size and age of this pot
Wine jar fragment



EC663. Wadjet eye mould. Many of these have been found on New Kingdom sites such as Amarna. A number of artefacts made through these moulds can be seen in the downstairs gallery.

Ask what is inside this and what does it look like? If they are struggling then ask what was put on the body of a mummy over the embalming cut? Try to get the answer an eye, or the Eye of Ra, Eye of Horus or the Wadjet eye. It was used as a mould to make faience amulets that could have been used to put on a mummy or used in life as a lucky charm. It would have been used to ward off evil and act to protect against illness and disease. You could ask older children or adults whether this would make a right or left eye. In theory the right eye was the Eye of Re, associated with the sun. The left eye was the Eye of Horus associated with the sun. The Eye of Horus is the one associated with the fight between Horus and Seth where Horus's eye is removed by Seth but then healed by Isis? Thoth (there are different versions of the story). Because it is healed it is associated with the waxing and waning of the moon. The right eye of Re is associated with the creative powers of the sun god. But don't worry- the Egyptians often confused the too!

Other objects in our gallery

Moulds in drawer

Faience items in faience case

There are wadjet eye embalming plaques in the maths case (these were put over the embalming incision to heal it).

There are lots of wadjet eye amulets downstairs

Glass

Egyptian glass was made from the same materials as faience, that is silica, natron/plant ash and lime. Like faience, it was also coloured from cobalt. It also seems that the production of faience and glass was carried out side by side. Briefly, in glass production, the raw materials would be ground together and then heated in a process called 'fritting'. This needs temperatures of 750-850 degrees c. The fritting process allows gases to escape so that bubbles do not appear in the glass. The frit would then be allowed to cool and ground up. The material would then be placed in vessels and heated to between 1,000 and 1,200 degrees c. At this temperature the glass would be a sticky mass. Cooling, regrinding and reheating might

be necessary to remove more air bubbles. The glass ingots would then be broken up and worked. At Amarna a number of rods or canes of glass were found.

A shaped core of mud might be used to dip into the molten glass, or the glass poured over a core. The glass might be cooled and moulded into shape or allowed to go cold and cut like stone. A lot of skill was needed to do this! Core formed, striped glass, is made by winding different coloured strips of cooled glass around a core of mud. Glass was regarded as a precious stone and was used to make jewellery, amulets, statues, and vessels (glass was not blown until Roman times).

Early glass is often treated like stone and may be cut like a gemstone rather than blown or moulded. An 18th Dynasty kohl pot of glass in the British Museum was solid cast and then had its interior drilled out like stone. Glass sickle blades were made in the same way as flint sickle blades in the tomb of Tutankhamun. Indeed, one of the words for glass in ancient Egyptian is 'the stone that flows'.

The earliest glass in Egypt dates to around 1500 BC and is of a very high quality. That some of the words for glass in Egyptian are Hurrian or Arkadian has led to the belief that the early glass was imported. Indeed the Amarna letters mention imported glass. Soon after it appears that there is some evidence of actual working but as there is no experimental period it has been suggested that this glass was made by foreign glass workers, perhaps brought over by Tuthmosis III (1479-1425 BC).

Petrie believed the glass was made at Amarna and outlined a possible method. However, there has been some dispute as to how this was carried out and some recent commentators believe that during the Amarna Period glass was imported into Egypt. Nicholson (1998, 809), however, believes that while we do not understand the details of glass production at Amarna we have kilns probably used in production of frit. These kilns are much larger than known pottery kilns and contain slag showing they were heated to much higher temperatures than would be necessary for faience production. He also states all stages in glass production present at Amarna but very few actual finds of glass, as it was a novel material.

Although Amarna is important for understanding glass working in Egypt (Nicholson and Peltenburg 2000, 183), we have only one piece of glass in the Egypt Centre which probably from this site. However, given that very little glass is known for this period its lack is not surprising.



This is an inlay in the shape of an Egyptian 'h' sign (W244) made of blue glass and purchased by Welcome at auction in 1930. Perhaps it is a piece of furniture inlay (Bianchi 1993). This is on display in the glass case. There are other pieces of glass which are in the Egypt Centre and are stylistically 18th Dynasty but we cannot be sure of the site.

EC4004 blue glass

Ask What do you think this is? What might it have made up? This is a piece of Roman glass and was probably part of a bottle and would be 2000 years old. As once the Romans arrived the glass that was produced was a lot clearer. (stress that the Egyptians could make glass it was just not as clear as we are used to today). You could show them the Amenhotep II glass fragment.



Other objects in our gallery

The pieces of glass on the other side of the case facing the materials board.
Glass eyes in the corner of House of Death (with the Cartonnage coffins).
Glass bottle in the glass case

AR50/3440

Shell or ivory bracelet from Armant. These type of bracelets usually date Predynastic Period and are found in graves.

Ask what do you think it is? What is it made of? (what are tusks made of? Could be hippo or elephant) Where did the ivory come from? Hippos lived along the Nile in Egypt but not elephants. There was a trade in elephant ivory – particularly from Nubia.



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old.

It is a bracelet that is made from Ivory or shell and is around 5000 years

Other objects in our gallery Predynastic case bracelets

Non Ancient objects

Papyrus

Ask What is this? How would it have been used?

This is a piece of modern papyrus. (You could show them the pictures of the papyrus from the red folder). It is from the papyrus reed that was found in abundance in the Nile Delta. What has happened to the Nile in modern times which means that papyrus does not grow there any more?



[The building of the Aswan Dam]. They would cut it into strips then lay them at 90° to each other then put a heavy weight on them. The sap in the reed glues it all together and makes a good writing surface.

Was a green reed-like plant, which grew along the Nile bank. It was used to make baskets, rope, boats, sandals and paper. To make paper the outer skin was peeled away and the inner core was cut into strips and soaked in water. The wet strips were placed overlapping side by side and beaten to mesh the strips together then another layer placed across the top of these. A heavy weight was placed on top and it was left to dry. When it was dry the sheet was polished with a stone or a shell. The inner layer of the papyrus plant made the best quality paper. Sheets could be joined together to make a roll.

Other objects in our gallery

Papyrus sandals in House of Life

Papyrus *Book of the Dead* in House of Death

The Galena.

Ask what they think it is. If they are struggling try to bring their minds back to the clothing activity and what was mentioned during that, which may be of some use. (This is only a useful question if galena was mentioned in the Clothing activity when talking about makeup.



This was used as makeup, ground down on a make up pallet (point to the make-up pallets in the cases) then mixed with oil or water then applied with a make up tool [again point to the case with the make up pots in. This is a modern piece but is on the board to give the group an idea of what makeup was used in ancient Egypt. The makeup from galena today is usually called 'kohl' and is still used in many parts of the world. Galena in Egypt is found in Aswan and on the Red Sea coast.

Other objects in our gallery

Make up palettes opposite the materials board and the Predynastic case to grind the galena.

Makeup pots. They can look in some of the pots and see if they can see the galena.

Handling Tray 2 Objects

Faience

EC798 Late Period Shabti. Late Period shabtis are characterised by a back pillar and square base. There are no overseer shabtis at this date.



EC1120 Bead necklaces

Some of the beads here are faience, others glass and lapis lazuli. That there are a number of glass beads in this suggest a date not predating the Late Period.



Stone

AR10 Flint blade



AB73 Macehead (Gift from University of Wales Aberystwyth)

Granite, disc shaped. Such shaped maceheads were particularly common during the Naqada I period (4000-3500BC). It is sometimes suggested that this shape of macehead imitates the lotus flower. Later forms were pear-shaped and are found in Mesopotamia as well as Egypt. Such objects are occasionally found on settlement sites.



Maceheads were used as weapons and in ceremonies. There are a number of pictures showing kings killing their enemies with such objects. However, some are quite small and this suggests that they are more for show and ceremonial use. Maceheads may either have been attached to a leather thong, or put on a wooden shaft.

The disk-shaped macehead seems to have been generally earlier than the pear-shaped macehead. Both date to the Predynastic to early Dynastic times (4000-3000BC) and are found in graves. Often they seem to have been deliberately broken before being put in graves.

One study (Podzorski 1993) has suggested that in graves men tend to be associated with maces (though since only two maceheads were found in this study the correlation may be insignificant) and Hassan and Smith's (2002, 52) study of 426 graves from 5 cemeteries suggested that maces were as likely to be associated with women's as with men's graves.

Ask What do you think this is? What might it have been used for? What is it made from? It is a macehead and could have been used in warfare or for ceremonies, it would have either had a wooden shaft so it looked like a club (show them the picture of the pear-shaped mace on the Narmer Pallet). It may also have had a strap of leather passed through the hole and would have been used more like a non-detachable sling.

Other objects in our gallery

Flat-topped maces in the draws

Also a pear-shaped mace head

Also in Predynastic case

W630 Artificial Hawk's Eye

The startlingly life-like eye is carved from two pieces of stone, with the wedge-shaped eyeball formed from a fine-grained white stone and a circular disk representing the pupil made from a black glassy polished stone, probably obsidian. Materials used for making eyes include travertine, obsidian, glass, quartz, rock crystal, limestone. Sometimes the fragile wood into which the eyes were inlaid disintegrated, leaving only the durable stone/glass eyes! Inlaid eyes were used for coffins, mummies, mummy masks, statues and occasionally for reliefs. The practice of inlaying artificial eyes in mummies did not begin until the late period e.g the mummy of Ramesses III (20th Dynasty) had artificial eyes inserted under the eyelids. This is the earliest instance of the use of stone eyes or the attempt to represent the pupil in an artificial eye in a mummy (although used in statues for over 1500 years!)



Ask What do they think it is? Does it look like anything they have seen?

Other objects in the House of Death gallery

The inlaid eyes near the cartonnage case.

Mummy masks

Wooden sarcophagus with inlaid eyes

Wood

EC609a

This is probably made from cedar or pine. Long thin piece of wood, flat on one side with rectangular opening to fit a peg. Possibly part of a piece of furniture. 14cm long.

Ask what is it made of? Also what it is/was used for? If they can't guess show the wooden leg replica and see if that helps then prompt them with ideas like what do you sit on?

Other objects in the House of Death gallery

The wooden furniture objects in wood working case.

Wooden object in the technology case



Metal

EC2080 Coffin clamp, 2nd century AD from cow burial 13 at Armant, in a burial place for Buchis bulls. Excavated by the Egypt Exploration Society.



Pottery

EC1381 Pottery from Amarna 3300 years old.



AB54

Fired clay mould for production of faience palmette -motif ring bezel labelled 'time of Akhenaton'.

Gift from University of Wales Aberystwyth.

Estimated date late Dynasty 18 (1295BC-1550BC)

Ask what is inside this and what does it look like? It was used as a mould to make faience ring bezels that could have been used to put on a mummy OR used in life as a lucky charm. It would have been used to ward off evil and act to protect against illness and disease.

Other objects in our gallery

Plant case objects

Moulds in drawer

Ring bezels and items on display in faience case



PROGRESSION TO: EDUCATIONAL LEADER

Statement of purpose:

All volunteer roles must actively support the museum's mission in the interpretation and care of Egyptian Archaeological material and related documentation for the education and entertainment of the public. They will do this by actively practising the three core roles of the museum in any role they undertake: **Preservation of the collection; Education and Widening participation.**

Responsible to: The Volunteer Manager

Purpose: To provide educational groups with a stimulating and enjoyable experience, through delivering key skill based activities centred on the Egypt Centre's collection and gallery. While there are no school groups, help the gallery supervisors and assistants in providing gallery supervision and visitor care.

Criteria to be completed prior to role being attained:

- 20 hours completion
- Completion of Educational Assistant Criteria
- Customer Care Refresher (30 min staff workshop)
- Key Skills and Curriculum Refresher
- Preventative Conservation Refresher
- Mentor for Education Assistant
- Familiar with all educational activities in chosen gallery and completed staff assessment
- Working knowledge of main cases in chosen gallery
- Completion of workbook
- MAINTENANCE OF ROLE: Educational refresher course attended every year

Key duties and Responsibilities	Outcome Expected
<i>Educational delivery (core job)</i>	<i>Confident delivery of activities in one gallery. Schools and visitors have the designated educational activities delivered</i>
<i>Gallery Maintenance (core job)</i>	<i>Ensure care of the gallery and collection</i>
<i>Visitor and customer care (core job)</i>	<i>Visitors have a stimulating and enjoyable experience</i>
Providing information when required	Meet specific needs of visitors
Attend pre-shift meeting for information of the days visitors and their needs and during the shift. Organise school groups in galleries to ensure smooth running of school groups	Teamwork, timekeeping, safety of children and providing appropriate levels of information
Cleaning/basic preventative conservation	Basic tasks to keep galleries clean tidy and collection safe
Signposting	To ensure visitors visit both galleries and get questions answered effectively, including hands-on activities

Skills Required

- Communication Skills
- Organisation
- Customer Relations
- Understand and follow procedures
- Reliable
- Positive manner
- Teamwork