**Enquiry One - How did Franck Goddio rescue hidden treasures from the sea?**
**Learning Objective** ; To understand how archaeologists excavate **evidence** from underwater sites as part of a process of **historical enquiry**
*The main focus is for pupils to understand how archaeologist Frank Goddio and his divers used technology to identify and excavate evidence from the sites of the sunken cities of Thonis-Heracleion and Canopus on the Mediterranean seabed off Alexandria, Egypt. Pupils suggest and experiment with ways that Goddio might have used, supporting the National Curriculum History requirement to develop* ***historical enquiry and learn how to handle evidence.*****Learning outcomes**
Pupils will have;

* Guessed about possible links between apparently objects that seem to have nothing in common
* Participated in discussion about how to overcome problems identifying sites and artefacts on the seabed **(historical enquiry, handling evidence**)
* Understood how Goddio overcame these problems using particular technology **(historical enquiry, handling evidence)**
* Experimented with possible methods of excavating artefacts from the seabed (**historical enquiry, handling evidence)**
* Understood the actual processes of excavation used (**historical enquiry, handling evidence**)
* Identified actual links between objects that seemed to have nothing in common
studied earlier in the lesson (**making links within and across periods**)

**Resources**

PowerPoint A

Large pieces of paper

Deflated balloons

Water filled tank or tray

Sand

Submerged artefacts

Small bits of wood

Plug chains

Video clips from links in the plan

**Starter or Initial Stimulus Activity**
Give large pieces of paper to school groups and place copies of the images from Slides One to Seven of PowerPoint A at intervals in a circle on each paper (include an actual deflated balloon). Draw arrows between and across the items so that they are all connected by lines (as in Slide Eight). Allow a limited amount of time for groups to speculate on how the items might be related and to annotate lines for pupils to discuss how items might link together and annotate along the lines with notes (it doesn't matter at this stage how tenuous such suggested links might be.) Ask all or selected groups to explain their diagrams (this could be done by gathering pupils around a particular diagram at a time whilst the group who wrote it explain their links). Display the images of Slides One to Five with labels. Allow groups time to amend the suggested links on their diagram if necessary and lead whole class discussion taking suggestions about how links may have been changed and reasons for this. Lastly ask pairs to carefully read copies of the text of the Australian news article of 1933 from Slide Nine explaining about the tantalising archaeological remains of Canopus discovered in that year. Allow groups to amend their links one more time and lead further class discussion about possible changes.

**First Main Learning Activity**

Display Slide Ten showing the Nile Delta today from a satellite photograph. Lead discussion about what pupils may remember about the importance of the River Nile in Ancient Egypt and why this is different today (*the Nile flooded regularly and inundated agricultural land on its shores, guaranteeing fertile soil with rich crops and pasture in a landscape otherwise dominated by desert- since the building of the Aswan Dam in 1958, the Nile no longer floods*) Display Slide Eleven showing a map of the Nile Delta 2000 years ago. Display Slide Twelve and explain that in 1998 diver and archaeologist Frank Goddio rediscovered evidence of both Canopus and another lost city, Thion-Heracleion in the submerged Nile Delta but faced factors which caused problems identifying where they were exactly located. Display Slide Thirteen which lists factors and allow time for pairs to discuss what obstacles these might cause to Goddio and what solutions they could suggest which would help him (the slide could be copied as a worksheet for pupils to complete)

Afterwards reveal the obstacle each factor presented to marine archaeologists in identifying buildings and artefacts from Slide Fourteen and lead discussion about what might be done about it. Display Slide Fifteen and ensure that pupils understand the capability of the technology described under headings A and B. Allow time for pairs to discuss how the techniques described overcome some of the obstacles discussed earlier identifying the location of the submerged cities on the seabed. Lead discussion before revealing details on Slides Sixteen and Seventeen which can be used to create the kind of bathymetric map of the sea floor which reveal the counters of a seabed illustrated on Slide Eighteen. Explain that from this kind of detailed map archaeologists can target specific areas for investigation. The brief following clip explains the technology of sonar

<https://www.youtube.com/watch?v=bADFB199KIc>

**Second Main Learning Activity**
Explain pupils will now decide in pairs/small groups how best artefacts from the seabed might be uncovered from sand. Firstly show a brief clip of Hampton Vale primary school pupils describing diving equipment (with support on a collapsed day from staff at the Maritime Archaeological Trust) (<https://youtu.be/rlIfn8hRqig>). Give out a water filled box or tray similar to that in Slide Nineteen with sand covering features of the model site to be excavated on the seabed (pieces of wood, stone or brick could be buried with models with parts from Egyptian playsets and ornaments in the shape of sphinxes etc.) Allow a limited amount of time for pairs/small groups to discuss how divers might remove sand from artefacts or ruins. Lead class discussion, taking suggestions from pairs. Display Slide Twenty One and explain from the diagram how archaeologists use an air lift or water dredge to suck sand off artefacts or ruins on the seabed (add that Franck Goddio and his divers also used under water torches to see because the sea was so murky). The following clip shows an air lift or water dredge in action

[www.youtube.com/watch?v=ZyEwot4o9HA](http://www.youtube.com/watch?v=ZyEwot4o9HA)

Next explain that pupils will now experiment with how heavy statues and other artefacts (display Slides Twenty One to Twenty Four) might be taken to the surface of the sea. Give pupils simple materials such as lengths of wood, a plug chain, some string and/or some model equipment or toys which might help them with their experiments such as a toy crane (include a deflated balloon). Stress that at sea they would be trying to bring artefacts to the surface and then land them on a boat. Select number of pairs/small groups to explain and demonstrate have they might raise artefacts to the surface of the sea. Then display Slides Twenty Five and Twenty Six which show how divers hoisted artefacts by ropes or straps with a crane or by hooking artefacts to a buoyant  airlift. Lead discussion about how practical or suitable such technology might be if used in deeper or stormier waters.

**Plenary or Concluding Activity**

Remind pupils of the location of the Nile Delta from Slide Twenty Seven and display the map on Slide Twenty Six showing the identified locations of Thonis-Heracleion and Canopus. Display the following reconstructions of Thonis-Heracleion and ask pairs to think of three adjectives which might best describe the environment in which inhabitants lived. Lead discussion, taking suggestions from pairs.(Pupils might need to be reminded of the heat of Egypt which they might not realize from the images)

[www.theguardian.com/cities/2016/aug/15/lost-cities-6-thonis-heracleion-egypt-sunken-sea#img-2](http://www.theguardian.com/cities/2016/aug/15/lost-cities-6-thonis-heracleion-egypt-sunken-sea#img-2)

<http://moocs.southampton.ac.uk/shipwrecks/2014/10/10/swallowed-sea-heracleion-egypt/>

<http://antinousgaygod.blogspot.co.uk/2014/08/in-egypt-antinous-and-hadrian-visited.html>

<https://www.youtube.com/watch?v=47B11rPX4ic> (This documentary shows an animation of the buildings of Thonis-Heracleion rising from the sea at 50.11)

Lastly give limited time for small groups to add notes to their link diagrams and cross out any guesses which were inaccurate. Lead discussion of what has been added or crossed out, taking comments from different groups.

**Enquiry Two - How Egyptian were the lost cities of Thonis-Heracleion and Canopus?**
**Lesson Objective;** To reach a balanced historical conclusion based on analysis of original evidence (**part of the process of historical enquiry**) from contrasting cultures (**similarity and difference**).

*The main focus of this lesson is deciding the extent to which the cities of Thonis-Heracleion and Canopus were Egyptian and the extent to which they also reflected Greek culture*.

**Learning Outcomes**
Pupils will have;

* Researched and summarised **characteristic features** of ancient Egyptian and Greek culture
* Viewed timelines of Ancient Egyptian history and the lost cities (**making links within periods)**
* Analysed archaeological finds (**handling evidence as part of an historical** **enquiry**) from Thonis-Heracleion and Canopus for evidence of the influence of both ancient Egyptian and Greek culture (**similarity and difference)**
* Devised a pie chart showing the extent of the influence of both cultures **(similarity and difference)**
* Justified the way that pie chart has been drawn by reference to original evidence **(part of the process of historical enquiry)**

**Resources**

Paper

PowerPoint B

Books and resources on Ancient Egypt and Greece

Toilet roll

Video clips from links in the plan

**Starter or Initial Stimulus Activity**

Allocate individuals within pairs the labels A and B. Allow time for the pupil labelled A to sketch a “typical" ancient Greek and pupils labelled B to sketch a "typical" ancient Egyptian. Allow time for pairs to critique each other's sketches. (*This activity can be an opportunity for teachers to assess any prior learning that pupils bring to the task*).

**First Main Learning Activity**

Display the map on Slide Two of PowerPoint B and remind pupils of the locations of Ancient Egypt and Ancient Greece. Give out A3 paper to pairs. Ask them to draw two columns, the first headed “Evidence of Egyptian culture” and the second “Evidence of Greek culture” Select different pairs to research one aspect of either Greek or Egyptian culture from the list below (also displayed on Slide Three of PowerPoint B).

Buildings
Art
statues
Type of writing
Religious beliefs
Coins
Pottery
Burial of the dead

Allow pupils easy access to any relevant books and reliable internet resources for research. Give a limited amount of time for each pair to research, note down and/or sketch about their aspect of either Greek or Egyptian culture (*The task could be differentiated by deliberately allocating the most complex aspects of the cultures to the most able pupils or by ensuring that weaker pupils are given the most accessible or visual texts*). Once this task has been completed, allow a limited amount of time for pupils to explain their research to the pair investigating the same aspect for the alternative culture. Place the completed sheets of A3 around the room at different intervals which can be referred to later.

**Second Main Learning Activity**
Roll out a roll of paper down the classroom. Place the labels and accompanying images from Slides Four to Eleven at appropriate intervals to form a timeline along the roll. As the labels are placed pupils could be encouraged to comment on the images, possibly displaying evidence of prior learning. Play the clip of the reconstructed city of Thonis-Heracleion rising from the Mediterranean from <http://antinousgaygod.blogspot.co.uk/2014/08/in-egypt-antinous-and-hadrian-visited.html> 50m. 11s.
Explain that Thonis- Heraklion and Canopus were expanding cities built on the River Nile Delta between 620 and 525 BC (place this date and the image from Slide Twelve on the timeline). Display the enquiry question on Slide Fourteen “ How Egyptian were the lost cities of Thonis-Heraklion and Canopus?” Explain that while the cities were built on Egyptian soil, Greeks lived and traded in them for many centuries (Add the details from Slides Twelve and Thirteen to the timeline, rolling it out further to 700 AD) . Give out A3 sheet to pairs/small groups and ask them to draw two columns on them, one headed “Evidence of Egyptian culture” and the other “Evidence of Greek culture”. Give pupils access to the interactive map of Thonis -Heracleion based on the research of excavation undertaken by Franck Goddio and the Hilti Foundation. <http://www.franckgoddio.org/projects/sunken-civilizations/heracleion/interactive-map.html>
Allow a limited amount of time for pupils to study and investigate the map hotspots in turn which describe and depict major sites of excavation.
Then allow a limited amount of time for pupils to note down as to whether they think particular artefacts show evidence of Egyptian or Greek culture placing artefacts under the appropriate column of their A3 sheet recording what the artefact was and when it was made (if pupils decide a particular artefact displays evidence of both cultures then the note can be placed across both columns).They could refer to the research completed earlier on aspects of Greek and Egyptian culture displayed around the room.

The glossary from Slides Fifteen and Sixteen could be displayed for reference (*the text accompanying the map is directed at adults*).

**Third Main Learning Activity**

Place the images of other finds displayed on Slides Seventeen to Forty at the 2016 British Museum exhibition "Sunken Cities Egypt's lost worlds" on to handouts (related artefacts are included where it was not possible to obtain images of the originals). Explain that there is some overlap with the finds displayed on the map. Ask pupils to add any further evidence to their columns.(*The number of items could be reduced as a form of differentiation*)

**Fourth Main Learning Activity**

Give out copies of the following artists reconstructions of Thonis-Heracleion and Canopus and ask pupils to look carefully at the style of the buildings as to whether they appear more Egyptian or Greek.

[www.theguardian.com/cities/2016/aug/15/lost-cities-6-thonis-heracleion-egypt-sunken-sea#img-2](http://www.theguardian.com/cities/2016/aug/15/lost-cities-6-thonis-heracleion-egypt-sunken-sea#img-2)

<http://moocs.southampton.ac.uk/shipwrecks/2014/10/10/swallowed-sea-heracleion-egypt/>

<http://antinousgaygod.blogspot.co.uk/2014/08/in-egypt-antinous-and-hadrian-visited.html>

The following video clip showing the city of Thonis-Heracleion re-emerging from the sea could be shown again too. https://www.youtube.com/watch?v=47B11rPX4ic

(50m 11s) Within an allotted time ask pairs to produce a pie chart where they represent the proportion of Greek culture in the cities by colouring one portion of the chart one colour with the proportion of Egyptian culture another colour (a third segment in a different colour again could represent a mix of cultures). If some pairs resist the task for lack of evidence that position can be respected but the pair will need to defend it carefully. Select some pairs to present their charts to the class, probing their reasoning by asking them to refer to evidence on which it is based and allowing other pupils to challenge them. At the end of discussion, take a vote on the chart most pupils agree with.(*From the available evidence the dominant culture remains Egyptian but with evidence of Greek influence. Some pupils may realize that although the Ptolomy royal family were Greek they adopted Egyptian dress and customs. So do they count as Greek or Egyptian cultural influence? Or is this evidence of cultural mixing?)*

**Plenary or Concluding Activity**
Ask pairs/small groups to revise the link diagrams complete completed in the first lesson. Select individuals to justify any changes or amendments made.

**Enquiry Three - How did archaeologists lift artefacts from the mud at Must Farm?
Learning Objective**  To understand how land based archaeology compares with maritime archaeology (**historical enquiry, handling evidence, similarity and difference)**

*The main focus is for pupils to understand the stages archaeologists went through as part of the process of historical enquiry uncovering the Bronze Age site at Must Farm near Peterborough and to compare them with methods used at Thonis-Heracleion and Canopus on the seabed off Egypt.*

**Resources**

PowerPoint C

Real or replica artefacts from the Stone Age, Bronze Age and Iron Ages in Britain (or images of them)

Ancient Egypt timeline used in Enquiry Two

A toilet roll (a different colour to the one referred to earlier)

Copies of diagrams downloaded from links in the plan

Video clips from links in the plan

Roofing felt, old carpet or tarpaulin

Bits of timber

Rope

Loan boxes of real or replica Bronze Age artefacts (available from Hampton Vale School)

String

Pencils

Trowels

Toothbrushes

A4 paper

**Learning Outcomes**
Pupils will have;

* Compared artefacts or replicas (or images of them) from the late Stone Age, Bronze age and Iron Age in the British Isles (**historical enquiry, handling evidence, similarity and difference, making links across periods**)
* Compared and contrasted a timeline for this period in the British Isles compared with one for Ancient Egypt already studied (**similarity and difference)**
* Participated in measuring and sketching a mock version of the Must Farm dig site (**historical enquiry, handling evidence**)
* Participated in a mock dig, making inferences from real and replica Bronze Age artefacts (**historical enquiry, handling evidence**)
* Compared the methods of land-based and Maritime archaeology (similarity and difference)

**Starter or Initial Stimulus Activity**
Give out a range of real and replica artefacts (or images of them) from the Stone age, Bronze age and Iron Age in the British Isles for small groups to handle and organise (ensure that the artefacts are mixed together). Lead discussion, taking suggestions from individuals about;

* The material particular artefacts may be made from
* Their possible uses
* How they were made
* Who might have made them
* Where they were made
* When they were made.

Set up the rolled out timeline for the chronology of Ancient Egypt used in Lesson Two. Roll-out a different coloured roll of paper alongside it. From slide Two to Eight of Resource C place the dates and events on the new timeline in relation to the later Stone Age, Bronze Age and Iron Age in the British Isles so that they match chronology of Ancient Egypt. Explain that each age is named after the main material then used by Europeans to make tools and weapons from. Ask small groups to organise their artefacts into three different groups, reflecting which ones they think might have been used in particular ages. Lead class discussion, taking suggestions from pairs before revealing what is known about each artefact. Place artefacts (or images of them) on the new timeline, around the date it appears to have been made. A version of this activity is presented very effectively on school visits to Flag Fen Archaeological Park which possesses many real artefacts which children can handle.

**First Main Learning Activity**

Display Slide Nine. Explain that in the Bronze Age what is now Peterborough was part of a landscape of a low lying fens with reeds, water channels and a few islands rising out of the water where houses might be built and animals grazed. Display Slide Ten which shows the reconstructed Bronze Age hut at Flag Fen. Explain that it was built with a wooden frame with wattle (interwoven fences of hazel or willow) and daub (mud and dung), plastered onto the walls with a turf roof. Play the following clip which shows the view of the interior of the hut, filmed by a pupil of Hampton Vale School Click here (<https://youtu.be/T9IEEGi91G8>). Display the following reconstruction of the Bronze Age settlement at Must Farm from this link

<http://www.sci-news.com/archaeology/must-farm-bronze-age-settlement-04031.html>

 Place a copy of the image on the British Isles timeline with the date 100-800 BC. Explain that while the reconstructed roundhouse at Flag Fen stood on the land, the Must Farm huts were built on wooden stilts over the edge of a muddy river bank.

Give out copies of the labelled diagram of how of the Must Farm houses were constructed from this link.

<https://www.sott.net/article/322336-Bronze-age-settlement-destroyed-by-fire-has-remained-intact-for-3000-years-preserving-remarkable-record-of-ordinary-life>
Give time for pairs to read and study the diagram. The following clip showing a reconstructed roundhouse being built in to time lapse film could also be played. <https://www.youtube.com/watch?v=pkROlmfbxQY>

Lead class discussion, taking comments from individuals about how strong or safe these houses might be.
Play segments from the following clip which shows how fire could spread easily within a Bronze Age roundhouse (It was constructed for a BBC4 documentary about the Must Farm excavations and burns down within fifteen minutes in real time). <https://www.youtube.com/watch?v=s48WGNYzD_s> Lead discussion about the effect such a fire might have on a roundhouse on stilts (The answer is that it might collapse on itself very swiftly, causing people to abandon their possessions and leave hastily). Display Slides Eleven which shows a cross section of one of the roundhouses and explain that if it caught fire the contents could be trapped in the mud below the hut. Explain that this is what happened at Must Farm.

**Second Main Learning Activity**

Explain that archaeologists from Cambridge University uncovered burnt timbers from collapsed Bronze Age roundhouses at Must Farm. Lead discussion, taking comments from pairs as to why this might be unusual (the answer is that organic material like timber would normally have rotted after nearly 3,000 years). Explain that it survived because artefacts were sealed in the mud and were preserved from rot in the waterlogged conditions. Display Slide Twelve which shows part of the exposed site at Must Farm. Explain that pupils will now complete an activity as if they were archaeologists on site, recording and measuring what they find carefully.
Clear a space on the floor and lay out a circular piece of roofing felt, old carpet or tarpaulin (this will represent the muddy surface of the excavation at must farm). Lay varied lengths of timber in a rough star pattern (See Slide Thirteen) with some laid at random angles. The pattern should imitate that of the preserved timber shown in Slide Twelve.
Next lay four long pieces of rope across the timbers in a noughts and crosses pattern (see Slide Fourteen). This replicates the kind of grid which archaeologists superimpose on an archaeological site to measure and record accurately.
Give small groups of peoples measuring equipment and within a set time limit ask them to draw an equivalent grade to scale on a piece of a three paper, marking on the positions of the timbers accurately. (They will struggle to complete the task but the point is for pupils to experience an aspect of archaeological method first hand and to appreciate its difficulty). Afterwards lead discussion, taking comments from pupils about;

* How they approached the task
* What they found difficult
* Why archaeologists record the location of everything they find accurately

**Third Main Learning Activity**
Set up five boxes of original and replica Bronze Age artefacts on tables around the room, buried in moist peat to imitate the mud at Must Farm (*the boxes bought for this project can be borrowed free of charge from Hampton Vale Primary School)*.

Create a grid with string and pencils across the top of each surface as in Slide Fifteen. Issue each group with a trowel, small brush toothbrush and piece of A4 paper on which to replicate the grid. Explain that the boxes contain some of the kinds of artefacts excavated on site at Flag Fen and that they will now excavate them in the same way that archaeologists do. Within a set time ask them to excavate artefacts from their box carefully, brushing them clean of peat, inferring what they might be in discussion and recording on their paper grid where exactly they were found in the box. Circulate around groups, listening and encouraging discussion, posing questions and supporting any weaker pupils. Access a clip here of Hampton Vale pupils inferring from artefacts (<https://youtu.be/27KjE66kGs8>). Afterwards lead class discussion, taking comments from pupils about what different artefacts might have been, who made them, and from what materials, and what they might tell us about Bronze Age life at Must Farm. Lastly reveal the content of each box in turn from Slide Sixteen to Twenty Two. Use Slide Twenty Three to draw out what might be inferred from each.

**Plenary or Concluding Activity**Give pairs a limited amount of time to discuss how similar or different the archaeological methods used at Thonis-Heracleion and Canopus were compared with Must Farm. Lead discussion, taking comments from pupils and asking whether one form of archaeology appears to be more difficult and if so why.

**Enquiry Four - How similar and different was life in Thonis-Heraklion and Canopus compared with Must Farm?**

**Learning Objective** ; To debate the extent of **similarity and difference** between the way of life of people living in different places but approximately the same time period.

*The main focus of the lesson is for pupils to compare and contrast lifestyles of people living in Thonis-Heraklion and Canopus with that of people living at must farm in the Bronze Age, deciding on the extent to which they overlapped.*

**Learning Outcomes**

Pupils will have;

* Considered what additional inferences can be made about life at Must Farm in the Bronze Age from excavated artefacts (**historical enquiry, handling evidence)**
* Participated in a card sort identifying the extent to which lifestyles in Thonis-Heraklion and Canopus overlapped with those at Must Farm (**similarity and difference)**
* Expressed the extent of **similarity and difference** through overlapping paper plates
* Agreed statements which can be made about life in the Bronze Age at Must Farm based on available evidence **(historical enquiry)**
* Participated in debate about which lifestyle pupils would have preferred and the reasons for this (**similarity and difference**)

**Resources**

PowerPoint D

Coloured pens

Large sheets of paper

Copies of card sort from PowerPoint D

**Starter or Initial Stimulus Activity**

Ask pairs to jot down everything they can recall about life at Must Farm in the Bronze Age from what they have already learned. Lead discussion, probing understanding of what they suggest and where they got their information from e.g. the mock archaeological dig, what they were told in lesson three, previous study in the school, general knowledge etc. Agree up to 10 statements and write these up for display. Highlight them in three colours, green for certainly true, yellow for probably true, red for might be true.

**First Main Learning Activity**

Arrange for pairs of pupils to access the full range of images of artefacts actually excavated at Must Farm from the following link. Click on each image for details of each find.

http://www.mustfarm.com/bronze-age-settlement/discoveries/
Instruct pupils to click on particular images for details of the finds.

Pupils could record the details on a table like that in Slide Two of PowerPoint D.

Return to the agreed statements about life in the Bronze Age and discuss any suggested amendments to the wording or the highlighted colours. Probe pupil understanding of any proposed changes or additional statements.

**Second Main Learning Activity**

Give small groups of pupils a set of cards copied from slides 3 to 33 describing aspects of life in Thonis-Heraklion, Canopus and Must Farm. On large sheets of paper ask them to draw a Venn diagram (overlapping circles) and label one Egypt and the other Must Farm (see Slide Three).
Ask them to read the cards carefully in turn and place them either in one circle or the other if the factor only applies to life in either Egypt or Mast Farm. However if the factor applies in both locations instruct pupils to place the card in the overlap between the circles. Once complete give groups a pair of paper plates the same size but with contrasting colours. Label one Egypt and the other Must Farm.

Allow a limited amount of time for groups to decide the extent of the overlap between lifestyles in Egypt and Must Farm and to hold up their plates accordingly. So if pupils think that the two societies have nothing in common they should hold up the two plates entirely separately, if they are exactly the same then one plate should be held directly over the other.
If they decide that the lifestyles in both locations are overlapping then they should place one plate partly over the other - the extent of the overlap should indicate the extent to which pupils think the societies overlap.(*The teacher can immediately assess the spread of opinion from the held-up plates*). Lead discussion, posing questions, taking comments, probing the degree of supporting evidence for an opinion and allowing pupils to challenge each other.

**Plenary or Concluding Activity**Return to the statements agreed previously about life at Must Farm in the Bronze Age. Discuss any further proposed amendments and reasons for this. Allow pairs time to discuss in which society they might have preferred to have lived in and why. Lead class discussion, taking comments from a range of pupils. Finally take a class vote.

**Enquiry Five - What should we put in our museum exhibition?
Learning Objective**
To agree criteria for the creation of an **historical interpretation** and then design it.
*The main focus is for pupils to decide the characteristics of an effective museum and design an exhibition for comparing life in Thonis-Heraklion and Canopus with Must Farm.*

**Learning Outcomes**
Pupils will have;

* Devised criteria for an effective museum/exhibition (**historical interpretation)**
* Decided the five most important messages around which an exhibition comparing Thonis-Heraklion and Canopus and Must Farm should be organised. **(historical interpretation)**
* Designed their exhibition taking into account the agreed criteria for an effective museum/exhibition and the five most important messages for comparing Thonis-Heraklion and Canopus with Must Farm. . **(historical interpretation, similarity and difference)**
* Produced a sample exhibition display (**historical interpretation)**
* Peer assessed the displays of their fellow pupils

**Resources**

Paper

Resources from preceding enquiries

Digital resources from links in the plan

**Starter or Initial Stimulus Activity**
Ask pairs to discuss any trips they remember to museums or places of historic interest, even if these are only school ones. Lead discussion of positive and negative experiences, taking comments from a variety of pupils. Agree a list of positive criteria which pupils think should characterise an effective museum e.g. hands on activities. (Pupils may need to be "steered" towards the inclusion of more serious factors such as the importance of factual accuracy.)

**First Main Learning Activity**Divide pupils into small groups. Explain that Cambridge Archaeology Unit (who excavated Must Farm) and the Hilti Foundation (which supports the diving excavations of Frank Goddio) have agreed to organise a joint exhibition travelling around European museums which will be called "Sunken settlements; comparing lost treasures of Ancient Egypt and Bronze Age Peterborough". Each group will design their own version of this exhibition in which they can place any exhibits they like from both excavations. Ask pupils to look back through resources to which they have referred in the study ofThonis-Heraklion, Canopus and Must Farm. While they do this each group must agree five main messages which people visiting the exhibition should know about the Egyptian cities and Must Farm. Lead discussion, taking comments from different groups but allowing them to amend their messages if they wish. Groups should now have two sets of criteria to work with in their design, the agreed criteria for an effective museum exhibition and the five points they think are most important for people to know about when comparing the sites.

**Second Main Learning Activity**
Give out large pieces of paper. Allow a limited amount of time for groups to complete an overall design for their exhibition. It should include the number of rooms, the titles of particular displays, the kinds of items on display, things for people to do etc. Each group could present its exhibition design to the class in turn, referring to how it matches the agreed criteria for an effective exhibition and their own five points. Those presenting could be asked to respond to comments from other pupils. Pupils could be given access to the following official websites for these digs
<http://www.franckgoddio.org/projects/sunken-civilizations/heracleion.html>
<http://www.franckgoddio.org/projects/sunken-civilizations/canopus.html> <http://www.mustfarm.com/bronze-age-settlement/>

**Third Main Learning Activity**
Individuals or pairs within a group could produce a sample display on paper or digitally for their exhibition. This could be completed as homework.

**Plenary or Concluding Activity**

Pupils could peer assessed each other's sample displays against the classes agreed criteria for an effective museum/exhibition and the five points decided by the small-group the work comes from. A pop-up museum could be created for display within the school using pupil work. This could also be taken around other schools or community sites.

**Select Glossary**

**Air Lift –** a device for sucking up sediment from the seabed to uncover buried artefacts

**Amber** - fossilised tree resin, valued for ornamental uses. Plentiful in the Baltic area of Northern Europe

**Auroch** – an extinct breed of wild cattle common in Bronze Age Britain

 **Bathymetric map -** a map created from sonar information showing up the contours of the seabed

**Bronze Age –** period of pre-history associated with the discovery of bronze smelting. In Britain usually dated 2,500-800 BC

**Daub** – a mixture of mud and dung used for plastering walls

**Nuclear Magnetic Resonance Magnetometer (NMRM) -** Equipment which discovers places under the seabed with a strong magnetic pull. These usually come from faults in the earth under the seabed.

**Neolithic** – a period of the Stone Age when hunter-gathering gave way to farming in Britain (4,000-2,500 BC)

**Papyrus** – paper made from reeds

**Sarcophagi** – stone coffins

**Side Scan Sonar** - Equipment towed under a boat sends invisible sound waves (sonar) in to the water which bounce off the seabed. Echoes on an electronic screen show the ups and downs of the surface.

**Sistrum** – a type of musical instrument used in Ancient Egypt

**Tanged** - refers to a metal extension or prong to an object, for example the part of a spearhead designed to attach to the shaft or pole of a spear

**Votive offering –** a gift made to gods, spirits or the dead

**Wattle –** fencing or walls made from interwoven willow or hazel branches

**Water Dredge –** see definition of Air Lift above

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