

Double Crossed Project

Time Raiders – Death of the Mummy

Teachers Notes

In this activity, students take on the role of 'time raiders'. They evaluate evidence from a recently discovered mummy to work out how it lived and how it died. Through so doing, they learn about the function of its preserved organs.

Objectives

Personal Capability:

Creativity and problem solving – to think creatively when interpreting evidence, asking questions such as why? How? and What if?

Science and History:

- To use skills and knowledge from science and history to interpret evidence and draw conclusions.
- To recognise that the range of evidence available can affect the conclusion reached.

Success criteria

To be successful the students will:

- Compare evidence from different sources and consider their value.
- Ask questions in relation to evidence such as why?, how? and what if?
- Reach conclusions based on consideration of more than one piece of evidence.
- Understand that additional evidence may have an effect on the conclusion reached.

Introducing the Overall Task

Introduce and discuss the learning objectives for the task. Emphasise that the task is about thinking creatively when interpreting evidence, both historical and scientific, asking questions such as *why?*, *how?* and *what if?*

Display **page 1** to introduce the context for the task. Explore students' views on the situation shown. Explain to the students that in the following tasks they must use the evidence from the tomb to answer the questions posed by the archaeologist. Discuss what types of evidence might be found.

Running the Main Tasks

Organise the students to work in teams of 3 or 4.

Use cards cut from **page 2** as a basis for a group activity – students match the pictures and descriptions of mummification, and then place in the correct order.

Page 3 asks the students to translate hieroglyphs found on a papyrus in the tomb. **Page 4** is needed as a basis for translation. This activity could be started as a whole class task and then continued in groups. See historical note about hieroglyphs, below. The answer to this task is on **page 13**.

Then use **page 5** as the basis for a group or whole class discussion about the evidence shown. Discuss possible scenarios for the marks on the skeleton and the contents of the 6 canopic jars. Refer back to the mummification process.

Page 6 asks the students to translate the hieroglyphs on the canopic jars to identify the body organs inside. Answers, from left to right: brain, stomach, heart, kidney, lung, liver. Then ask each group to focus on just three of the jars. Once they've made the translations, give students the appropriate information sheets from **pages 7, 8 and 9** about the organs in the canopic jars.

Give students copies of **pages 10 and 11** on which to compile a report about the mummy based on evidence obtained from all the previous tasks.

Once reports have been compiled they could be compared using whole class discussion, looking at some reasons why interpretation of evidence has varied and how using different sources of evidence can affect the conclusion.

Reviewing the Task

Discuss with the students the range and types of evidence they used. What science based evidence and what historical evidence was available? Which evidence had most value and why? What questions was it useful to ask when interpreting evidence?

Involve the students in reviewing the task using the assessment for learning Smart Grid on **page 12**.

Possible practical activities

The Time Raiders – Death of the Mummy activities were originally designed in conjunction with a practical activity based on the “excavation” of a mocked-up skeleton/mummy in a cardboard box/coffin slightly covered in sand. The skeleton (a science department resource) was covered with tissue and PVA glue. It was painted and wrapped with tea bag stained bandages. Cuts were made on a leg, an arm and a rib over the heart to provide further clues for options as to how the person might have died.

Six glass jars covered with brown paper tied with string were used to represent canopic jars. The cartouche (a carved tablet or drawing representing a scroll with rolled up ends) for the organ contained was written on each jar.

Historical note

Egyptians only used three, sometimes four, canopic jars which contained the stomach, intestines, lungs and liver. (For the benefit of these activities we have increased the number of jars to six to provide heart, brain and kidneys. Although historically inaccurate this provides more options in the deduction process.)

Egyptian hieroglyphs are phonetic. Students need to know that they represent the sounds and not the spelling of the word. Occasionally hieroglyphs contain a picture of the object they were commenting on rather than a phonetic representation, e.g. a drawing of a house to represent a house.

The person identified as the mummy in the task is Imhotep who was an architect who built a pyramid and was also linked to Egyptian medicine. He was later deified for his work with medicine.