Queen Hatshepsut's Ship

Key Learning Content

This film tells the story of Hatshepsut, the first and only female pharaoh of ancient Egypt. She was famed for her daring adventures and expeditions, and her tomb contains a detailed carving of a ship she may have used on her travels. The drawing appears to be drawn to a scale of 1:10. From the drawing, a full-sized model of the ship has been constructed and successfully sailed.

Core Outcomes

Learning Points

- Be able to use and interpret scale drawings.
- Be able to solve problems using scale drawings.
- Be able to use ratio notation including reduction to its simplest form and expressing ratios in the form 1:n.

Suggested Activities

- Draw scale drawings of a car, a jumbo jet, or a cruise liner.
- Read lengths and distances from scale drawings.
- Work out the scale of printed photographs.

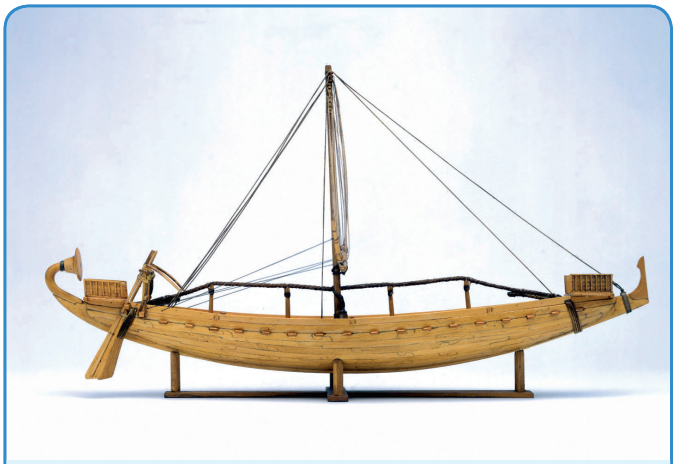
Extension Outcomes

Learning Points

- Be able to use and interpret maps.
- Be able to solve word problems about ratio and proportion using maps.

Suggested Activities

- Draw a scale map of the school.
- Work out the scale of a map from facts about places on the map.



Queen Hatshepsut was the first and only female pharaoh of ancient Egypt. She undertook daring adventures and expeditions.

Related Films

To use before the lesson plan:

The Tunnel of Samos	This film gives an impressive example of what ancient civilisations achieved through accurate measurement and scale drawing.

To use after the lesson plan:

Modelling the Spitfire	This film explores how length, area and volume scale factors are related.
Jai Singh	This film details the extraordinary ways in which Indian astronomers accurately measured the heavens.

Guide Lesson Plan

Introduction

Show students a map of the Red Sea, from Egypt in the north down to modern Eritrea and Somalia in the south, with a scale in the form 1:100,000 or similar. Then get students to estimate with a ruler and using the scale the distance from Egypt to the tip of Somalia. (The distance should be about 3000km; the location of Punt is unknown but is probably somewhere along this coast).

Show Film

Queen Hatshepsut's Ship

Main Activity

Foundation

Tell students to produce scale drawings of a modern day large object similar to the ship in Hatshepsut's time. Get them to place people in the drawing to the correct scale so that the drawing could be used to produce an actual-sized model of the original. When done, get students to swap drawings with their neighbour and work out the full-scale size of the object the neighbour has drawn.

Advanced

Get students to draw as accurate a map as possible of the school to a scale of 1:10,000. Collect in and compare efforts and select the best map. Copy and distribute this map to students, then ask them to calculate distances between places in the school using the map. Then, using a large notice board and placing the school map in the centre, add in other nearby landmarks, to the same scale.

Extension Activity

Foundation

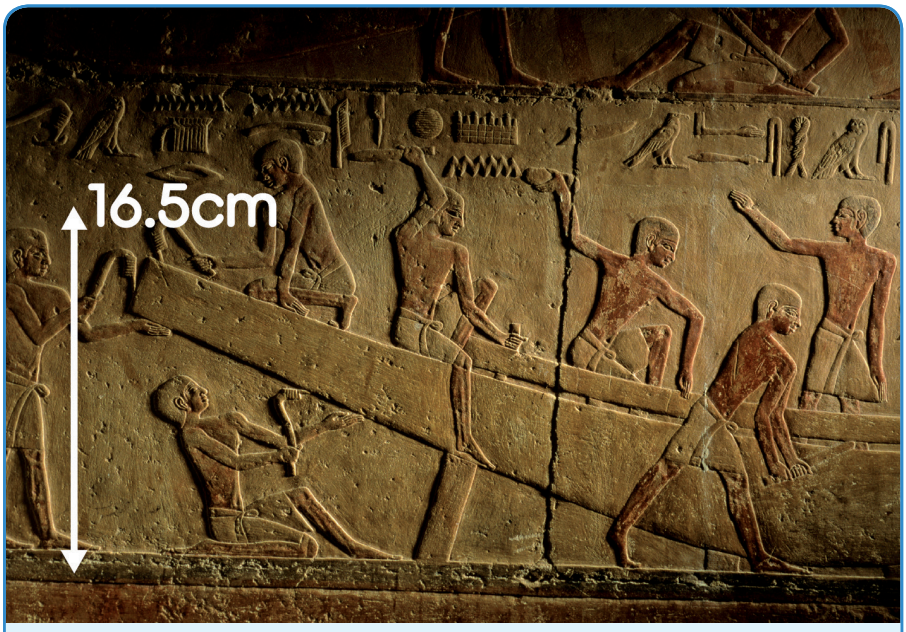
Give students printed photographs of objects and get them to work out the size of the original object using scale, e.g. a photograph of an airplane with a passenger in the doorway; a photograph of a building with a car outside.

Advanced

Find a map of the Mediterranean sea in ancient times with its scale removed. Then give descriptions of sizes and distances between places on the map so that students can work out the map scale. Then describe a sea journey around the Mediterranean and get students to estimate the distance covered in the journey.

Optional Extra

Give students a scale drawing of a house or apartment (very often these accompany the sales particulars on the internet when the property is for sale). Get students to estimate the floor area of the property from the scale drawing and compare this with the figure quoted in the sales literature.



The average ancient Egyptian was 165cm tall; the people in the carving on Queen Hatshepsut's ship measured 16.5cm.