Objectives
- To learn about the work of Galen and the study of the body.

Resources
Photocopiable page 'Claudius Galen' from the CD-ROM; photocopiable page 82 'Galen's science'; a small pebble

Speaking scientifically
biceps, triceps, dissect

Lesson 2: Claudius Galen

Introduction

Tell the children they are going to learn about a doctor called Claudius Galen and his ideas about the circulatory system. Issue photocopiable page 'Claudius Galen' from the CD-ROM, and read the first two paragraphs. Ask the children to find the two muscles mentioned – the biceps at the front of the upper arm, the triceps at the back. Ask them to bend their arm and use the other hand to feel the biceps change, then straighten it and do the same with the triceps. Say that from this we might think that Galen's ideas about science were similar to ours. Give children photocopiable page 82 'Galen's science'. Say that in Galen's time scientists had some very different ideas and that the children will need to use both photocopiable sheets to find out what they were.

Whole-class work

1. Read the third paragraph of 'Claudius Galen' and look at Diagram 1 on 'Galen's science'. Ask the children to describe two properties of each element from the diagram. Ask them to identify the elements in glass (earth), sunshine (fire), metal (earth), damp wool (earth, water, air).

2. Hold up a small pebble and drop it on the floor. Ask the children to explain what happened (gravity). Say that to the Ancient Greeks the answer would be that the pebble is made of earth and is therefore attracted to the ground.

3. Read the fourth paragraph of 'Claudius Galen' and look at the four humours in Diagram 2 on 'Galen's science'. Discuss the way that they relate to the four elements, shown in Diagram 3.

4. Read the fifth and sixth paragraphs of 'Claudius Galen' and relate it to Diagram 4 on 'Galen's science' by matching the statements with the numbers on the diagram.

Group work

5. Let the children study Diagram 4 on 'Galen's science' and the explanation provided on 'Claudius Galen'. Ask them to write a description of the journey that a watery element in food would take in Galen's model. (It is converted to blood in the liver, passes from the right to the left side of the heart through tiny holes in its wall, then goes to the lungs pick up 'vital spirit' and takes it up to the brain to produce thought.)

Differentiation
- Support children who have difficulty interpreting the diagram of Galen's circulatory system by providing a labelled diagram and adding some directional arrows.
- Challenge children to write a similar description based on their completed photocopiable page 81 'The organs of the body' from the previous lesson.

Science in the wider world

If doctors are concerned that there may be a blockage in a patient's artery they may inject dye into the blood so that they can see how the it flows around the body. The dye can be seen on an X-ray.

Review

Ask the children to read their interpretations of Galen's circulatory system. Read the last paragraph of Claudius Galen and emphasise that his ideas were believed to be true for many centuries.