Objectives
- To learn about the effect of camouflage.

Resources
Media resource 'Banded snails' on the CD-ROM; each group will need enough modelling clay to make 20 balls with a 2cm diameter; a selection of paints; paint brushes; stopwatch

Speaking scientifically
camouflage, silicon

Lesson 1: Sir David Attenborough and camouflage

Introduction
Tell the children that one of Sir David Attenborough's first programmes was about camouflage. Ask the children what the word means and why animals might need to use camouflage.

Whole-class work
1. Say that one common animal that is found in many habitats, including gardens, is the banded snail. Show the children the media resource 'Banded snails' on the CD-ROM. Ask: *Why do the shells vary in colour?*

2. Say that the snails are the prey of birds, and ask how you could investigate which of these patterns could help best with camouflage.

3. Discuss how scientists sometimes use models in their investigations and ask how models could be used in this one.

Group/paired work
4. Let the children plan an investigation using the school grounds in which to test their models. A workable plan would be to make 20 model shells of the same colour and paint half of them with five bands. One child places them at random in long green grass and another child, looking down on the area as a bird would in flight, is then given a minute to find as many as they can. This should be repeated with the same person putting them out but with different people acting as *birds*. The number of each type collected by each 'bird' should be recorded.

5. Ask the children how they could see if they get the same results in other parts of the habitat and look for an answer featuring short grass and long yellow grass. Say that sometimes the snails are found in bushes and let the children design and carry out an investigation to see how the snails are camouflaged there.

6. Let the children present their results using bar graphs of un-banded and banded snails for each location.

Independent work
7. When the investigation is complete, ask the children to write a report of it as if they were going to read it out like Sir David Attenborough in one of his programmes.

8. Check their work and select the most realistic to read out in the review.

Differentiation
- Support children in making models the same size and in organising their activities in the investigation.
- Challenge children to make ten models with eight bands and test them against the five-banded snails.

Science in the wider world
Ecologists study populations of animals to find out what they eat and what preys on them. From this they can work out how the animal fits into the food chain.

Review
Let the children present their results and conclusions to the class. The results will depend on the surroundings, but they may find that the models of snails without bands are less visible and therefore less frequently picked up in green grass while banded models are less frequently picked up in brown grass.