Objectives
- To understand the importance of pollination.

Resources
Pictures of seeds or real examples (acorns, conkers and sunflower seeds); media resource 'Parts of a flower (1)' on the CD-ROM; flowers containing lots of pollen – some flowers in supermarkets will be suitable, or in early spring look for catkins; small squares of black paper; simple microscopes; magnifying lenses; photocopiable page 104 'Pollination'; rulers; coloured pencils
(Note: although lilies contain lots of pollen, their pollen can stain, so may be best avoided.)

Speaking scientifically
stigma, stamen, pollen, pollination, insect

Lesson 1: Pollination of flowers (1)

Introduction
Show the children the seeds. Remind them what a conker, acorn and a sunflower seed are. Use the seeds to explain to the children that plants, such as sunflowers, grow and produce seeds so that a new plant can grow. The seeds grow into the new plant.

Whole-class work
1. Show the class the media resource 'Parts of a flower (1)' on the CD-ROM, and remind them of the names of the parts of the flower – the petals, the stamens and the stigma.

2. Explain to them that the pollen on the stamens has to reach the stigma. Pollen can go from the stamens to the stigma in the same flower, or it can go from the stamens of one flower to the stigma of another flower. This is what pollination is all about.

3. Talk to them about how they think that this might happen. Explain that some plants have pollen that blows from the stamens to the stigma.

4. Talk about how insects, especially bees, search for nectar on the flower's stigma, brush against the stamens so that pollen collects on their hairy legs, and then move to another flower and transfer the pollen onto the stigma there.

Group work
5. Give each table a few sheets of black paper, lenses, microscopes and flowers or catkins with plenty of pollen. Ask the children to shake the pollen from the flowers onto the black paper. Explain that this is what has to be transferred to the stigma to pollinate the flower so that seeds grow.

6. If possible, look at the pollen under the lenses and microscope. This can be difficult but it might be possible to observe the strange shapes of the pollen. If the children can see this, ask them to draw what the pollen looks like.

Individual work
7. Give each child photocopiable page 104 'Pollination' to complete. Explain that the photocopiable sheet shows pollen being blown between flowers, and flowers being pollinated by bees.

Differentiation
- Support those children who have difficulty matching the written labels to the pictures on the photocopiable sheet. Check that they understand what is happening and what the names of the parts of the flower are.
- Challenge children to look more closely at a range of different flowers and ask them why they think that the petals are brightly coloured or strange shapes – pictures of orchids are good examples. They will begin to understand that flowers have to attract insects so that they can be pollinated.

Science in the wider world
Insects are important for pollination and the children need to understand this so that as they grow older they can explore some of the problems that might occur if insects such as bees decline in numbers.

Review
Children can be assessed on how well they understand pollination and how well they can explain how it happens.