

## Life processes and living things

### The human impact on evergreen and deciduous trees

**Aims:** To explore and use classification keys to help group, identify and name a variety of living things in the local and wider environment; to recognise that environments can change, and that this can sometimes pose dangers to living things.

#### Resources

Research sources: internet, newspapers and magazines, plant books, *Pappus* Plant ID sheets, Wildlife Trust Nature Detectives ID guides.

#### Activity idea 1: Evergreen and deciduous trees

Reflect on pupils' existing knowledge about trees; use the *Pappus* Plant ID sheets to research and identify evergreen and deciduous trees found in the school grounds or neighbourhood. Discuss the differences between evergreens and deciduous trees, looking at the relative habitat value, food chain relationships and value to wildlife.

#### Activity idea 2: Impact of humans on the environment

Using a range of research sources, explore examples of human impact (both positive and negative) on environments, for example, the positive effects of nature reserves, ecologically planned parks, or garden ponds, and the negative effects of population and development, litter or deforestation.

Consider the value of trees to humans, from jobs such as forestry and arboriculture, to products made from timber and medicinal uses. Produce a document such as a leaflet or poster to explain the role of trees in the economy and environment. You could also use the task to encourage the use of emotive language to persuade people to change their behaviour, through a mock debate or newspaper article.

#### Key vocabulary:

Needles, leaf, evergreen, deciduous, trunk, root, bark, nuts, sap wood, timber, cellulose, products, deciduous, conifer, cone, angiosperm and gymnosperm

#### Success criteria: students can:

- ✓ describe the difference between types of trees
- ✓ use the different sources of information to establish facts
- ✓ use emotive language – links to literacy

## Working scientifically: investigations

### Testing different growing media

**Aim:** To test and compare a range of growing media, fertilisers and conditions.

#### Resources:

Radish or cress seeds, seed trays, a range of growing media and compost, plant fertilisers.

Use radish or cress for this experiment as both are fast growing, the seeds are large and easy to handle and the seed leaves are easy to count.

#### Activity:

There are many different ways to grow radish and cress seeds – for example in dirt, potting compost, on damp absorbent paper. Potting compost also comes in low and higher pH versions, so it's worth trying these too.

- Sow all the seeds at the same time, but try different growing locations, e.g. light and dark, cool and warm in order to make comparisons.
- Pupils should work in groups to agree a scientific query that they want to explore and then devise an investigation, planning the variables and how they will record and analyse the results.
- At the end of the investigation pupils can also eat the produce.



If you have a place to plant out the radish seedlings to grow to maturity, they will produce seed pods that can be eaten just like the roots. These are slightly peppery but not usually as hot as the roots.

#### Key vocabulary:

variables, fertiliser, growing media, growing conditions, fair test

#### Success criteria: students can

- ✓ plan and conduct a fair experiment to test a hypothesis
- ✓ collate information / data and analyse it to answer my hypothesis
- ✓ use scientific language to explain my findings