

# Science vocabulary

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### Ecological vocabulary

Many ecological issues are very complex, yet it is important that children develop understandings about them, so that they can play a part in looking after the planet. Boyes and Stanisstreet (1996) suggest that as a first step we should consider the vocabulary we use. Teachers need to ensure that the language they use is accessible to students but at the same time helps students develop a "scientific vocabulary". Simple activities aimed specifically at vocabulary development can be helpful.

Some important biological terms are explained briefly below.

**Ecology** is the study of how living things interact with each other and their environment. Biologists use the word **environment** to cover all the living and non-living factors that affect the living things (organisms) in an area.

An **ecosystem** is a system consisting of living and non-living things that interact with one another. Ecosystems can be large (like the rocky shore) or small (like a rotten log). All ecosystems share important characteristics. The sum of all ecosystems makes up the **biosphere** – the part of planet Earth that can sustain life. The biosphere stretches from the bottom of the ocean into the atmosphere.

All the living things in an ecosystem are known as a **community**. All the individuals of a particular species in the community make up a **population**. (**NB** Biologists use these 2 words with meanings that are slightly different from their everyday use).

A useful framework for developing academic language with bilingual students was described by Cummins (2000). He suggested that first there needs to be a focus on **meaning**, followed by a focus on **language** and then a focus on **use**. It seems likely such an approach could be useful with all students learning the "language of science".

### References

- Boyes, E., & Stanisstreet, M. (1990). Misunderstandings of 'Law' and 'Conservation': a study of pupils' meanings for these terms. *SSR*, 72(258), 51-57.
- Cummins, J. (2000) *Language Power and Pedagogy: Bilingual Children in the Crossfire*. England, Multilingual Matters Ltd.