

Upper primary to
mid secondary
secondary

Activity 1: Getting to know lichens

A lichen is a composite organism made up of algae or cyanobacteria (photobiont) and fungi (mycobiont). The photobiont and fungi form a symbiotic association that is beneficial to both. Lichens come in many shapes and colours. Lichens can be divided into broad groups according to their growth form, which may be foliose, fruticose or crustose.

Aim: to become familiar with the structure of a typical lichen

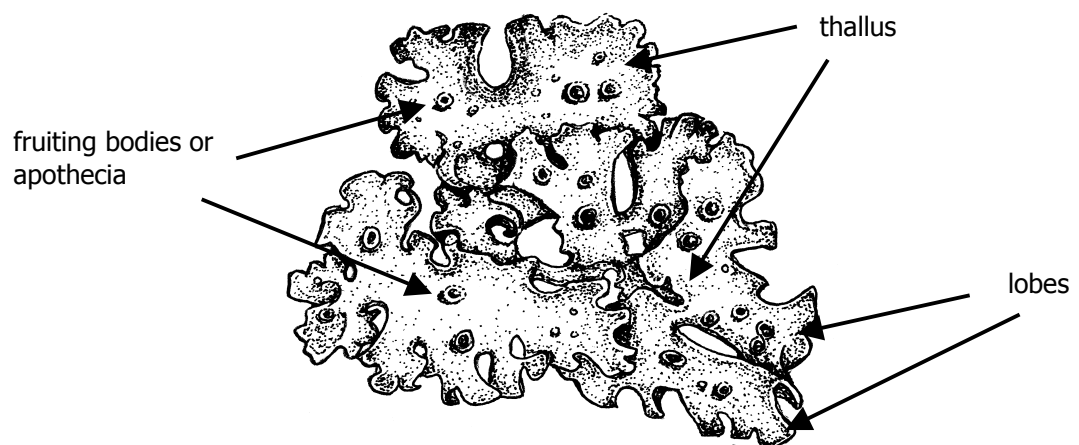
Part a. parts of a typical foliose lichen

What you need:

- lichen sample
- magnifying glass, hand-lens or dissecting microscope
- petri dish
- spray bottle with water

What to do:

1. Collect a foliose lichen sample and place it in a petri-dish
2. Using a magnifying glass, hand-lens or dissecting microscope identify the thallus and look for rhizines. Rhizines, if present are located on the underside of the lichen and are usually black, but can be brown or cream in colour.



Disc- or cup-like structures, fruiting bodies may be present on the surface of the thallus. These fruiting structures (or apothecia) have tiny spores inside them that can only be seen with a high-powered microscope. The fruiting bodies are often a different colour to the lichen thallus

Questions:

Can you see any fruiting bodies on the surface of your lichen?

What shape and colour are they?

Draw your own diagram of the lichen and label the structures you can see