

Leaves for extreme climates

This task is about identifying features of adaptation.

Read the information in the box below about the jobs leaves do for plants.

Leaves do three main important jobs for plants:

- Leaves use sunlight to make food.
- Leaves help plants "breathe".
- Water travels up from the roots and passes out of the leaves, which keeps water supplies moving through the plant.

Now for each picture of leaves:

- Read the information about the leaves and the plant that they come from;
- Describe how the special features of the leaves help that plant survive in its environment

(The first one is done for you.)

a)  **Where the plant is adapted to grow:** In cold snowy places.

Description of the leaves: The leaves are long and thin with a waxy coating. There are a lot of them.

How the special features of the leaves help the plant grow in cold snowy places:

- There are lots of leaves so the tree can "make food" even though the leaves are small and there is not a lot of sunlight.
- The waxy coating helps save water when the tree can't get water from the frozen ground.

b)  **Where the plant is adapted to grow:** In shady places under bigger trees.

Description of the leaves: Its leaves are quite large.

How the special features of the leaves help the plant grow in shady places:

c)  **Where the plant is adapted to grow:** In water.

Description of the leaves: Its leaf has a waxy coating and many air spaces. When you look at it through a microscope you can see lots of little holes on top.

How the special features of the leaves help the plant grow in water:

d)  **Where the plant is adapted to grow:** In very hot, dry places.

Description of the leaves: The leaves look more like a prickly than a leaf.

How the special features of the leaves help the plant grow in very hot dry places: