

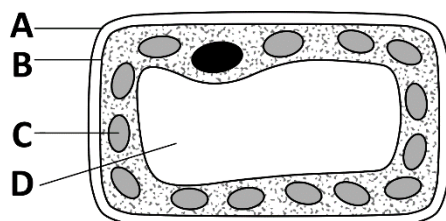
Name:

Class:



The diagram shows a section through a mesophyll cell of a leaf.

Which part is partially permeable?

**B**

Bulldogs are an example of a breed of dog that has been selectively bred.

Describe how dogs are selectively bred.

- Identify individuals with the trait that is desired.
- Breed these individuals together.
- Select the offspring with the trait and cross them. Repeat until results are achieved.

What is a characteristic of all living organisms?

- A** Breathing
- B** Circulation
- C** Egestion
- D** Sensitivity

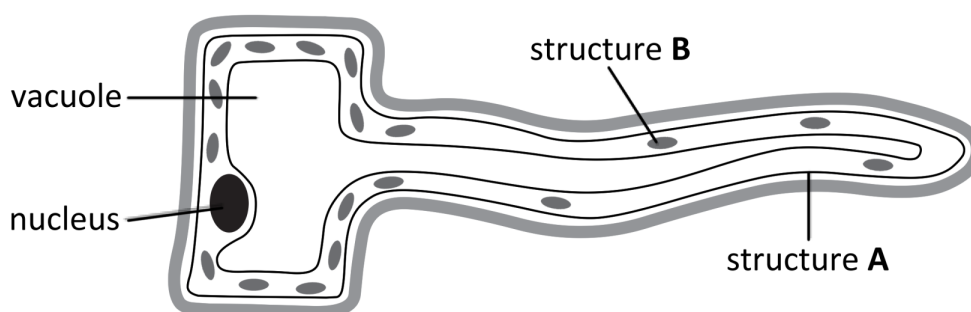
Fish such as cod reproduce sexually.

Give **one** advantage of cod reproducing sexually. **Any one** of the following:

- It produces variation in the population.
- Species can adapt to environments.
- Resistance to disease.

Nitrate ions are absorbed into a plant root through root hair cells.

A student finds this diagram of a root hair cell in a textbook.



State the names of structures A and B.

A = **Cell membrane.**

B = **Mitochondrion.** Do not accept mitochondria as it is pointing at one not two.

Note: you might be thinking why is this not chloroplast? Chloroplasts do photosynthesis. Root hair cells are underground. There is no light there so no photosynthesis can take place.

What is an allele?

A single copy or version of a gene.

State **one** advantage of asexual reproduction.

Any one of the following:

- Only one parent needed.
- The population can increase rapidly.