

## Solutions

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Each answer shows the steps, then the **result**.

### 2.1

- an adaptive feature is an **inherited feature that helps an organism survive and reproduce** in its environment

### 2.2

- any **one** of: thick waxy cuticle / few or small stomata / water storage

### 3.1 B

- a thick waxy cuticle **reduces water loss**
- A is the opposite; C and D are other leaf jobs

### 3.2

(a)

- a **thick waxy cuticle** reduces evaporation from the leaf surface
- **few/small stomata** reduce water lost by transpiration

### 3.3

(a)

- an inherited characteristic that makes the organism **better suited** to its environment
- so it is more likely to **survive and reproduce** there

(b)

- **thick waxy cuticle**: water cannot evaporate through wax
- **rolled leaves** with stomata inside: trap humid air, so less vapour diffuses out
- **hairs / sunken stomata**: trap still humid air and shelter pores from wind

(c)

- **large air spaces**: hold the leaf at the surface and store oxygen for roots
- **stomata on the upper surface only**: the lower surface is in water

(d)

- its features save water, which is **not scarce** in a pond
- its roots are not adapted to airless mud, so they would **not get enough oxygen**