

1. Mini garden

(a) Marcus and Davina are finding out about the water cycle.

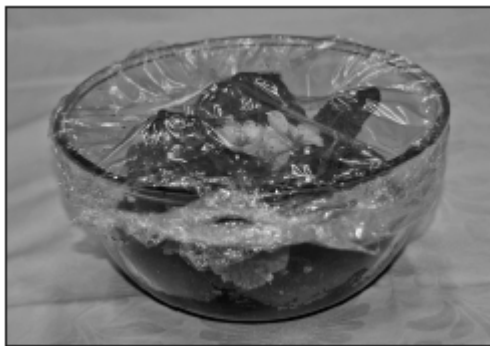
They make the mini garden below to observe how water can change.



1. Put a layer of soil in the bottom of a clear bowl.



2. Add a small plant and water it well.



3. Cover the bowl with plastic wrap.
This is a mini garden.



4. Put the mini garden on a windowsill.

The plant needs water to grow.

Name the part of the plant that takes in water from the soil.

.....

1 mark

(b) In the mini garden, water changes to water vapour.

What is the scientific name for the process in which water changes into water vapour?

.....

1 mark

- (c) A plant can live in a mini garden for a long time without being watered again. The bowl must be well sealed.

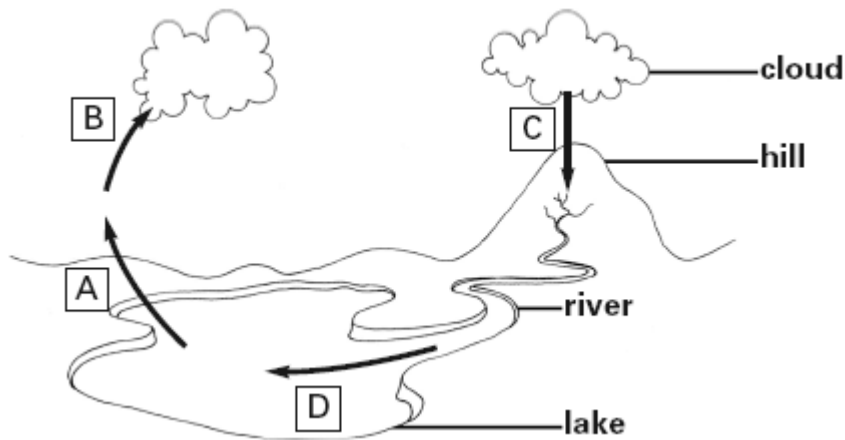
Explain why the mini garden does not need to be watered again when the bowl is well sealed.

.....

.....

1 mark

- (d) Marcus and Davina can observe all the changes in the water cycle in their mini garden. This is a diagram of the water cycle.



Draw **FOUR** lines to match each letter, A, B, C and D to the correct description of what is happening in the water cycle.

A	Rain falls.
B	Water changes into water vapour.
C	Water vapour changes into water.
D	Water flows into lakes or seas.

2 marks

Mark schemes

1.

(a) Award **ONE** mark for naming root.

- ◆ **Give credit** for a correct response that goes beyond the key stage 2 programme of study:

- root hairs.

***Do not** give credit for a response that includes incorrect science:*

- *stem*
- *leaves.*

1 (L5)

(b) Award **ONE** mark for naming evaporation.

- ◆ **ONE** mark may be awarded for a response that goes beyond the key stage 2 programme of study:

- *transpiration.*

***Do not** give credit for an insufficient response that describes the process of evaporation:*

- *water changes into water vapour/a gas [given].*

1 (L5)

(c) Award **ONE** mark for an indication that water is trapped inside the sealed container **or** that water is recycled within the container **or** that the plastic wrap causes the water vapour to condense and fall back down:

- the water (vapour) cannot escape from the container
- if it was not well sealed the water inside the mini garden would escape
- the water is recycled in the bowl
- after the water evaporates, it condenses on the plastic wrap and drips back down, watering the plant again
- the water evaporates and then cools down again turning the water vapour into water again.

ONE mark may be awarded for:

- *the water vapour cannot leak out*
- *it gets water from water vapour*
- *the water vapour condenses on the plastic wrap*
- *condensed water will drip onto the soil.*

Do not give credit for a response that includes incorrect science:

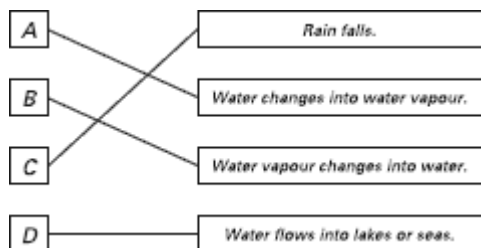
- *it stops the water evaporating [the water evaporates inside the mini garden].*

Do not give credit for an insufficient response which does not imply the water is recycled:

- *water stays in the bowl*
- *water turns to water vapour.*

1 (L3)

(d) Award **TWO** marks for **all four** lines drawn correctly:



2 (L5)

or If you are unable to award two marks, award **ONE** mark for **any two** or **three** lines drawn correctly.

1

[5]