

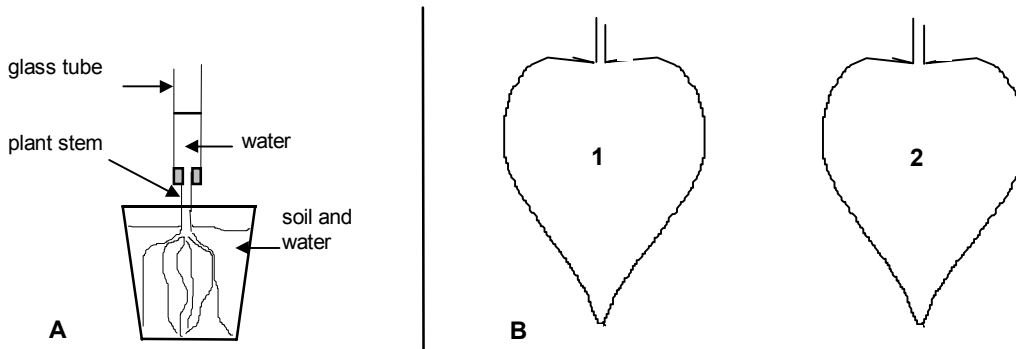
P6 Water Transport

Name Date

- Complete the following sentences. Use the words in the brackets below.
- 1 Most of the water which enters a plant root is absorbed by root cells.
- 2 Plants lose water from the surface of their
- 3 This loss of water vapour is called
- 4 Transpiration is more rapid in hot, dry and conditions.
- 5 Most plants have a layer on their leaves which stops them losing too much water.
- 6 Plants living in dry conditions have a layer of wax.
- 7 Most transpiration is via tiny holes called.....

(**windy leaves hair thicker waxy transpiration stomata**)

- Look at the following diagrams of two experiments.



8 Explain how the water got into the glass tube in experiment **A**.

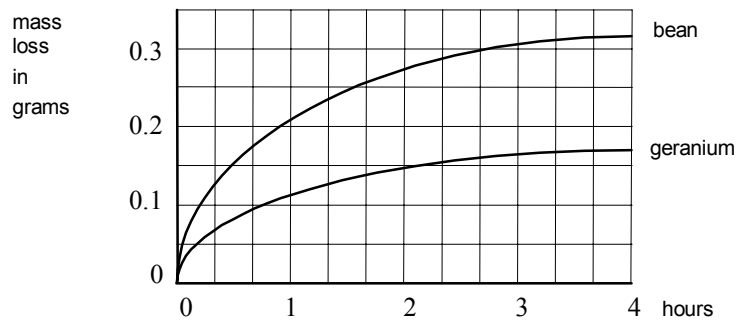
- **B** shows two identical leaves which were hung in **two** different places on string for 24 hours. Leaf **1** lost 0.32 grams, but leaf **2**, at a different place, only lost 0.02 grams.

9 Suggest the conditions in which leaf **1** was left.

10 Describe how leaf **1** lost 0.32 grams.

11 What is this process called?

- In another experiment, two leaves from different plants were cut off. They were kept in identical conditions. They were weighed every hour for four hours. The results are in the graph below.



12 Describe **two** differences you would expect to see between the structure of the two types of leaf.

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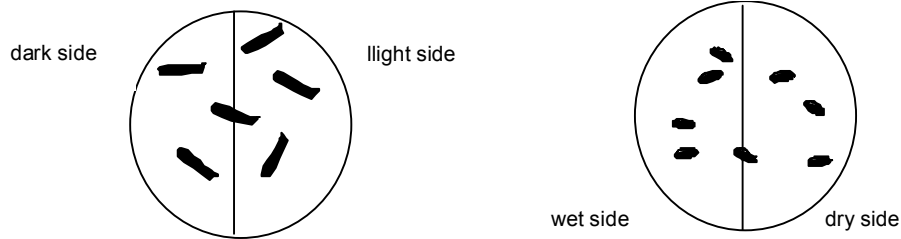
V5 Adaptation

Name Date

- Complete the following sentences. Use the words in the brackets below.
- 1 Blowfly larvae and woodlice move towards conditions.
- 2 They respond to the of light and humidity.
- 3 Blowfly have four stages in their life history, egg,, pupa and adult.
- 4 Blowfly are an example of an insect with metamorphosis.
- 5 Fish have for propulsion and for balance in the water.
- 6 Fish gills have a surface area and a good blood supply to ensure efficient gas exchange.
- 7 A honey bee has a long proboscis to extract from flowers.
- 8 A honey bee has on its body and legs to collect and carry pollen.
- 9 Flowers have petals, anthers and stigmas that are to match the bees that pollinate them.
- 10 Without the fruit farmer would have a much reduced crop.

(larva favourable bees stimuli hairs nectar adapted fins complete large)

- Look at the two drawings of choice chambers seen from above, immediately after introducing the animals. Then answer 11 to 17.



- 11 After 20 minutes the blowfly larvae in the left choice chamber will be on
- 12 After 20 minutes the woodlice in the right choice chamber will be on
- 13 The fin that is mainly used for propelling a fish through the water is the fin.
- 14 Two adaptations of a fish gill for gas exchange are
 - (i)
 - (ii)
- 15 Air holds twenty five times more oxygen than water does. A fish will suffocate when left out of water because
- 16 Describe one relationship between the adaptations of a bee and the flower that it pollinates.

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- 17 Some bee keepers have portable hives because.....

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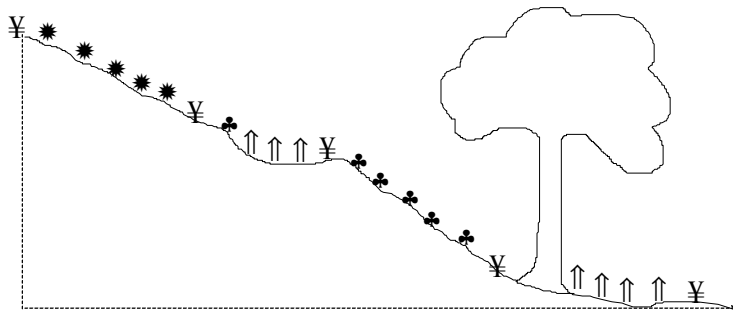
E1 Environment

Name Date

- Complete the following sentences. Use the words in the brackets below.
- 1 A factor which may affect living organisms is the temperature of where they live.
- 2 A physical factor which may affect living organisms is the amount of that they get.
- 3 A physical factor which may affect living organisms is the availability of water where they
- 4 Two gases which may affect living organisms are the availability of and carbon dioxide where they live.
- 5 All these factors vary according to the time of day and the time of
- 6 Organisms live, grow and reproduce where are suitable.
- 7 Organisms live, grow and reproduce at that are suitable.
- 8 This helps to explain why the types of organisms from place to place and from time to time.

(live year times physical oxygen light vary conditions)

- Two students studied a hillside. They started at the top of the hill. They wrote down the names of the plants that they found as they walked in a straight line down the hill. They made a drawing of the hill and the plants that they found. Study this drawing then complete 9 to 17 below.



- KEY
- ↑ = reed
 - * = daisy
 - ♣ = clover
 - ☐ = dandelion

- 9 Daisies are found at the of the hill.
- 10 Dandelions grow
- 11 The daisies do not grow under the tree because
- 12 The reeds only grow in two areas because
- 13 The two gases that are needed for plants to survive in this area are and
- 14 The daisies were easy to identify because the survey was carried out in summer. Suggest one difference you would notice in the daisies in the winter time.
- 15 Clover plants have white flowers that need bees to pollinate them. Suggest why the clover plants make their flowers in summer.
- 16 Daisy plants close their flowers up at night. Two physical factors that might make them do this are
 (i) (ii)
- 17 In winter ponds are like a desert. What do you think is meant by this statement?

