

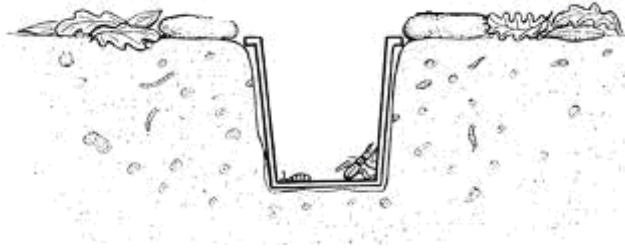
**CfE Science**  
**Energy and**  
**Living Things**  
**Homework**

**Energy and Living Things Homework 1**

**1 What is the word used to describe where an animal lives? 1**

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**2 a. What is the name of this sampling technique? 1**




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**b. Describe an improvement that could be made to this set up and state why you would make this improvement.**

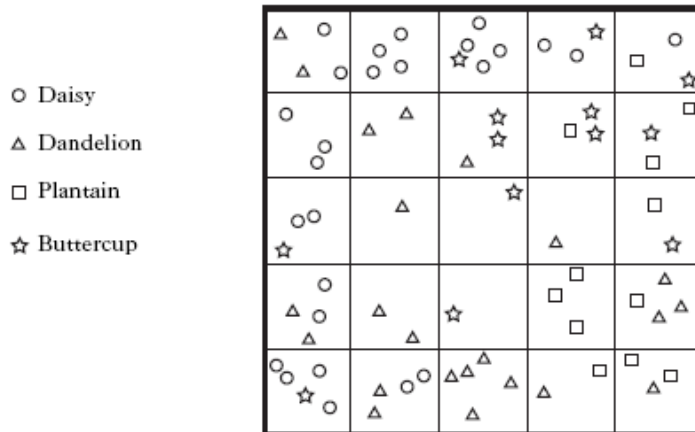
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**1**

**3 The diagram below shows the species found in one throw of a quadrat**



**Complete the following table to show the abundance of the four species found in the quadrat.**

<b><i>Plant species</i></b>	<b><i>abundance</i></b>
Daisy	
Dandelion	
Buttercup	
Plantain	

**1**

4 a. What can be used to measure light intensity?

\_\_\_\_\_

1

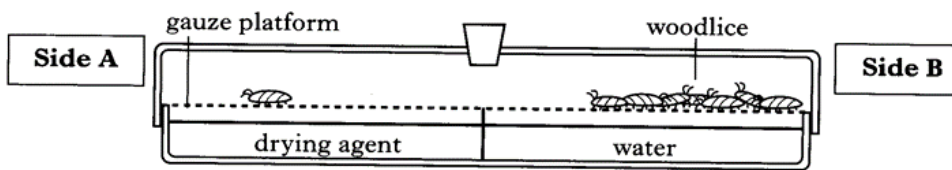
b. Describe how this is used?

\_\_\_\_\_

\_\_\_\_\_

1

5 The apparatus shown below was set up as part of an investigation.



At the start of the investigation, 20 woodlice were placed in the centre of the choice chamber.

After 10 minutes there were 2 on side A and 18 on side B.

a. What was being investigated in this experiment?

\_\_\_\_\_

\_\_\_\_\_

1

b. Why were 20 woodlice used rather than 1?

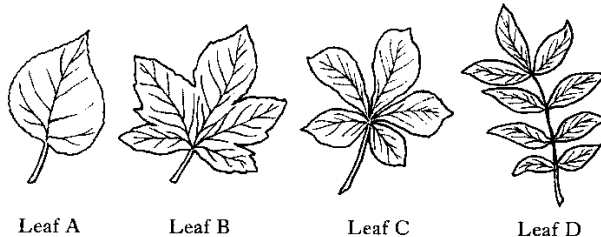
\_\_\_\_\_

1

6 The following key can be used to identify four species of trees from the shape of their leaves

1. Leaves divided into a number of separate leaflets.....go to 2  
 Leaves not divided into separate leaflets.....Go to 3
2. All leaflets grow from the same point.....Horse chestnut  
 Leaflets grow from separate points.....Ash
3. Leaf outline has several pointed lobes.....Sycamore  
 Leaf outline has a single point.....Lime

Use the key to identify each of the following leaves:



Leaf A

Leaf B

Leaf C

Leaf D

2

A = \_\_\_\_\_

B = \_\_\_\_\_

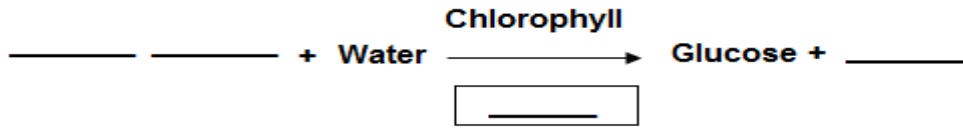
C = \_\_\_\_\_

D = \_\_\_\_\_

Total = 10

**Energy and Living Things Homework 2**

**1 Complete the following word equation to describe the process of photosynthesis:**



**3**

**2 Complete the sentences below:**

**a. Photosynthesis takes place in the \_\_\_\_\_ of plant cells**

**1**

**b. Carbon dioxide enters the plant through the \_\_\_\_\_**

**1**

**c. Water enters the plant through the \_\_\_\_\_**

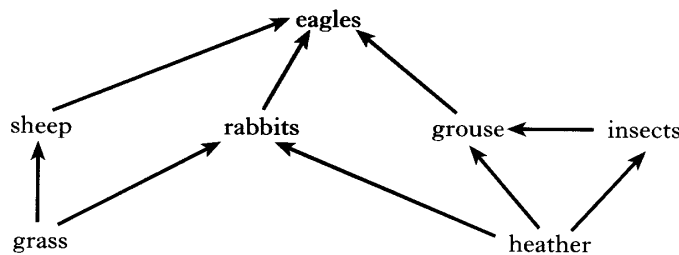
**1**

**3 The following steps are carried out to test a leaf for starch but are in the wrong order. Rearrange the letters for each step to make the order correct.**

- (a) Iodine solution is added to the leaf.
- (b) The leaves are boiled in alcohol for a few minutes to remove the green colour – chlorophyll.
- (c) The leaves are put into boiling water for a minute. This kills the cells.
- (d) If starch is present, the iodine changes from brown to blue/black.
- (e) The leaves are rinsed in warm water – to remove the alcohol.
- (f) The leaves are placed on to a tile.

**1**

**4 The diagram below shows part of a food web in a Scottish moor land.**



**a. Heather plants are producers.  
What is meant by the term producers?**

**1**

**b. From the above food web, name an organism that can be described as**

**1**

**i) a predator \_\_\_\_\_**

**1**

**ii) prey \_\_\_\_\_**

**c. What do the arrows represent in a food chain/web?**

**1**

**Total =10**

