Firrhill High School

Science

B1: Ecology

Effective Contributors

Responsible Citizens

Food Chain

Successful Learners

Confident Individuals
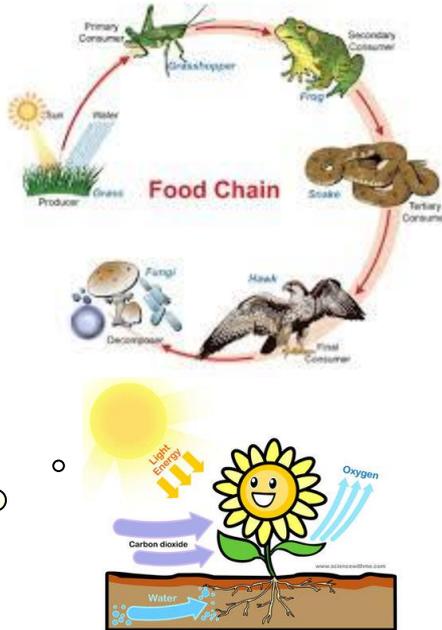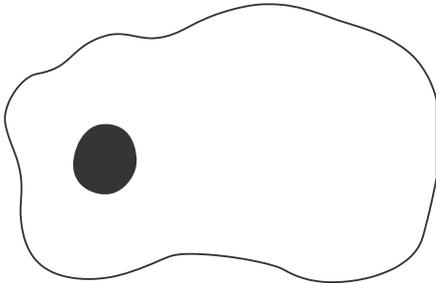
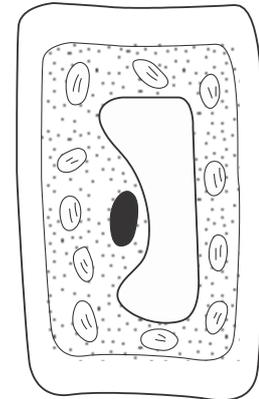| Homework	Due	Comment
Homework 1 Animal & Plant Cells		
Homework 2 The Environment		
Homework 3 Food chains & webs		
Homework 4 Endangered Species		

1. Animal & Plant Cells

1. a) Draw lines from the words in the boxy to the correct part of each cell. The words can be used more than once.

| cell wall |
| cell surface membrane |
| chloroplasts |
| cytoplasm |
| nucleus |

This is __ _____cell   This is __ _____cell

b) in the blank space in the sentence underneath each diagram, fill in the words **a plant** or **an animal.**

2. Draw lines from the parts of cells to their functions.
   The first one is done for you.

Part of cell   **Function**

Part of cell	Function
Cell surface membrane	Tells the cell what to do
Chloroplasts	Keeps the cell together and controls what goes into and out of the cell
Nucleus	A jelly-like substance in which may of the cell's activities happen
Cell wall	A storage space filled with sap
Cytoplasm	Green discs that allow the plant to make food by photosynthesis
Vacuole	Supports the cell

I CAN...   • Name the parts of cells and describe their functions

2. The Environment

1.
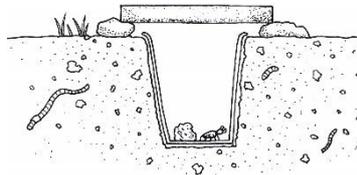   a) Why is sampling an environment a useful tool for scientists?

   _____

   _____

   _____

   b) What does the word 'environment' mean?

   _____

   _____

   c) Label each picture and state what organism it is best for sampling.

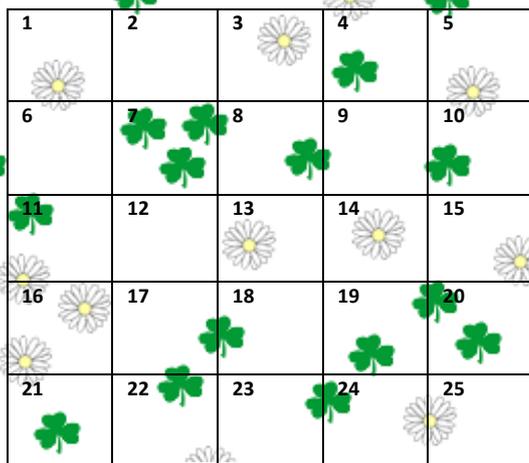|		
This is a _____. It is used to collect _____.	This is a _____. It is used to collect _____.	This is a _____. It is used to collect _____.

2. A quadrat is another tool used to sample an environment.

a) Chose four boxes and count the number of daisies in each box.

Box ___	___daisies
Box ___	___daisies
Box ___	___daisies
Box ___	___daisies
Box ___	___daisies

b) Calculate the average number of daisies.

$$Average = \frac{total\ number\ of\ daisies}{number\ of\ boxes}$$

$$Average = \ \_\_\_\_\_ \div \_\_\_\_\_$$

$$Average = \_\_\_\_\_ daisies$$

c) Give one **biotic** factor that could affect the number of daisies growing in a field.

d) Give one **abiotic** factor that could affect the number of daisies growing under a tree.

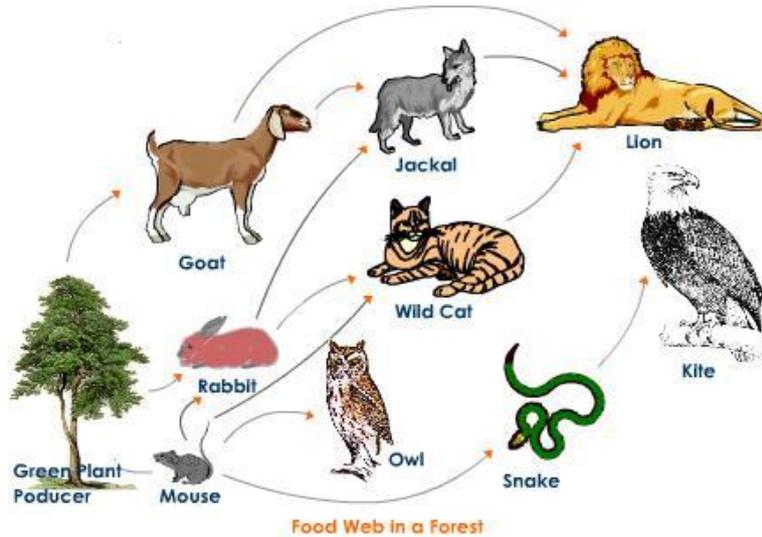I CAN...   • Give examples of biotic and abiotic factors   Collect & analyse data

3. Food Chains & Food Webs

1. Use the food web above to make TWO different food chains.

(all spaces must be filled in)

Food Web in a Forest

Food chain 1

_____ → _____ → _____ → _____

Food Chain 2

_____ → _____ → _____ → _____

2. What do the arrows in a food chain show?

_____

3. What is a producer?

_____

4. From the food web above, name:
   i) A prey of the wild cat _____
   ii) A producer _____
   iii) A predator of the shrew _____
   iv) A carnivore _____

5. After a very stormy winter there were less trees. How do you think this would affect the other animals in the food web? Try to explain your answer.
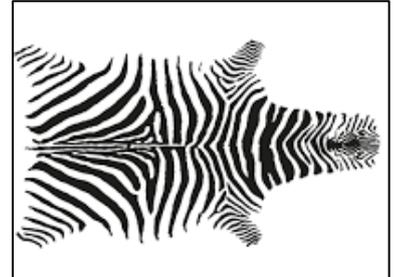
_____

_____

_____

_____

I CAN…:
- Use scientific terms to discuss food chains and webs.
- Understand how organisms are all linked in a food web.

4. Endangered Species

1. Label each example below to show the different ways that humans have caused different animals to become endangered.

Animals are _____ by humans.

Animal _____ are destroyed by humans.

_____ _____ caused by humans makes the environment hotter.

Animals are _____ for their skins or horns by humans.

2. Using a computer (either at home or in school) research one animal that is endangered and complete the fact file about it.

Endangered Animal Name:

Endangered Animal Drawing:

Endangered Animal Habitat:

_____

_____

_____

_____

_____

_____

Reason for Animal Endangerment:

_____

_____

_____

_____

_____

_____

I CAN…
- Research and make opinions about scientific issues.
- Think about how animals have adapted to suit their environment.