

# S1 Biology - Environmental Biology Revision Sheet


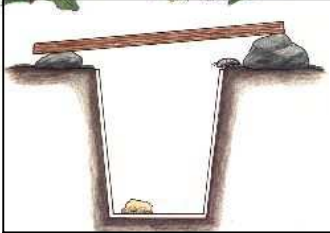
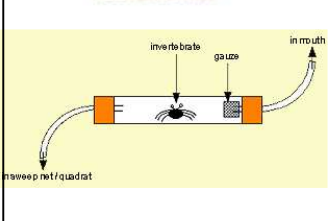
## Describing an environment

There are lots of terms that we can use to describe part of an environment. You must know the meanings of these terms. A list of words you should know is given in the table:

Keyword	Meaning
Habitat	Place where an organism lives
Community	All of the organisms living in an area
Population	The number of one species living in an area
Ecosystem	Habitat+Community+Non-living Factors

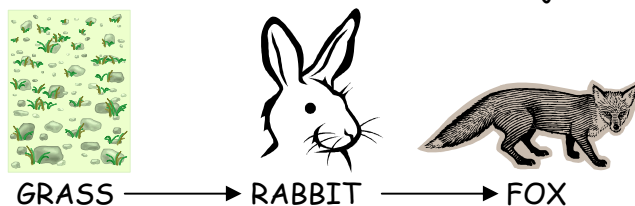
## Sampling an Environment

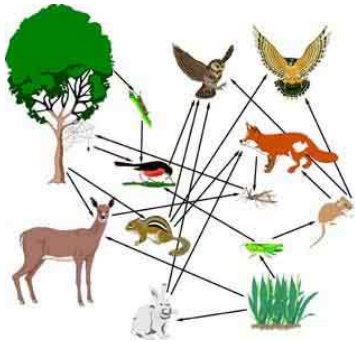
You should be able to name different techniques that can be used to sample organisms in the environment and describe how to carry out each technique:

	<p>Name of method: Quadrat            What does it sample? Plants            How is it used? Put the quadrat in different places (which are chosen randomly). Count the number of squares each type of plant is found in.</p>
	<p>Name of method: Pitfall trap            What does it sample? Ground-living insects            How is it used? Insects will crawl along the soil surface and fall into the trap. Holes in the bottom allow water to drain out.</p>
	<p>Name of method: Pooter            What does it sample? invertebrates            How is it used? One tube is placed over an insect and the other is placed in your mouth. Suck through the tube to draw the organism into the chamber.</p>

## Food chains and Food webs

You should be able to draw food chains, just like the one below:





You should also know that food webs are diagrams which show lots of food chains that have been fitted together ( a bit like the pieces in a jigsaw).

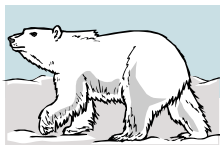
The arrows in a food chain or web show DIRECTION OF ENERGY FLOW.

There are lots of terms that we can use to describe an organism's eating habits. A list of words you should know is given in the table:

<i>Keyword</i>	<i>Meaning</i>
Herbivore	An organism which only eats plants
Carnivore	An organism which only eats meat
Omnivore	An organism which eats both plants and meat
Producer	An organism (green plant) which can make its own food by photosynthesis
Consumer	An organism which eats another organism

### Adaptations

An adaptation is any feature which aids the survival of an organism. Adaptations can be physiological (of the body) or behavioural. Here are some examples of adaptations:



**POLAR BEAR**

Physiological:  
Camouflaged  
+ thick coat



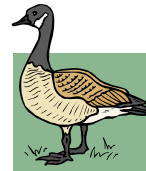
**CACTUS**

Physiological:  
Long roots  
+ stores water



**WOODLOUSE**

Behavioural:  
Remains in  
dark/damp



**GOOSE**

Behavioural:  
Migrates in winter  
avoiding cold

### Competition

Competition occurs when two or more individuals require the same resource. Animals can compete for water, food, mates and shelter. Plants might compete for space, water, sunlight, mates and soil nutrients.

### Human impact on the environment

Humans can have positive and negative effects on the environment. Negative effects include cutting down trees (deforestation) and pollution. Positive effects include new trees being planted (reforestation) and developing alternative fuels.