

Forces

Key Vocabulary:

Acceleration: The rate at which an object's velocity changes

Air resistance: The force of air acting on a moving object

Balanced forces: Two forces of equal size acting in opposite directions

Contact force: A force that must touch an object to affect it

Friction: The force caused by one surface touching another surface

Gravity: A force that attracts an object towards the centre of another object

Magnetism: The force between two magnets or between a magnet and a magnetic material

Motion: Movement

Newton: The unit for force

Non-contact force: A force that can affect an object without touching it

Tension: The force acting on an object that has been stretched

Thrust: A 'pushing' force

Up-thrust: The force that acts upwards on an object, often from air-resistance or water

Velocity: The scientific word for 'speed'

Weight: The force that results from an object's mass and the effect of gravity

Life.

7 life processes: (MRS GREN). Movement, Respiration, Sensitivity, Growth, Reproduction, Excretion, Nutrition.

Habitat: Is where an organism lives, it contains everything the organism needs to survive.

Ecology: the relations of organisms to one another and to their physical surroundings.

Environment: everything within the surroundings of a specific area.

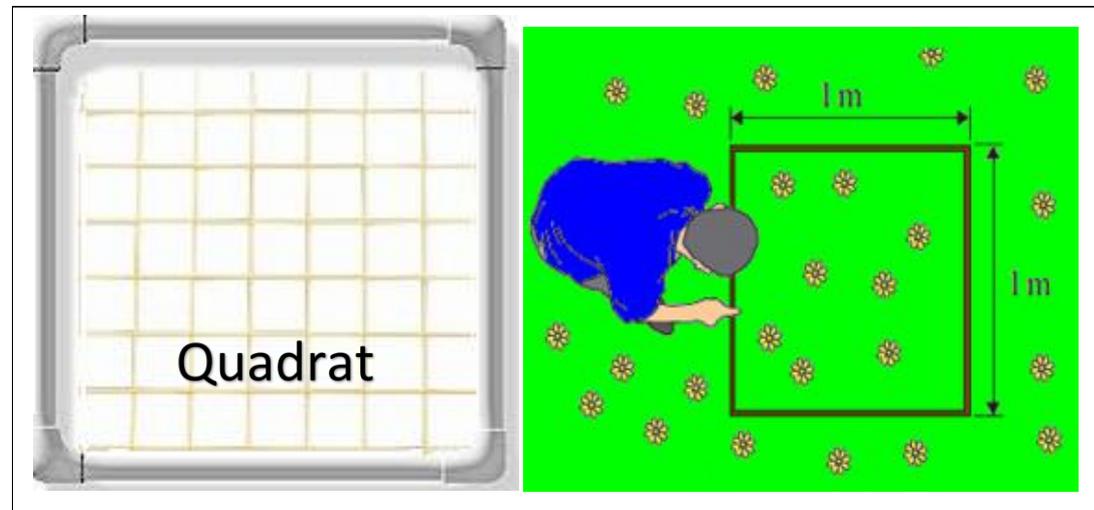
Sample: A small part or quantity intended to show what the whole is like.

Population: the number of organisms of the same species within a certain area

Abundance: A measure of how common or rare something is.

Distribution: Where particular types of organisms are found within an environment.

Quadrat: A square frame randomly placed, to estimate number of plants and animals in a given area.



Feeding Relationships.

Food Chain: a series of organisms each dependent on the last as a source of food.

Food webs: many food chains linked together to show the feeding relationships of organisms in an ecosystem.

Producer: A plant (or photosynthesizing microbe) can make its own food (glucose) using photosynthesis.

Consumer: An organism that obtains its food by feeding off of other organisms.

Trophic level: the position an organism occupies in a food web, shown by the number of steps it is from the start of the chain.

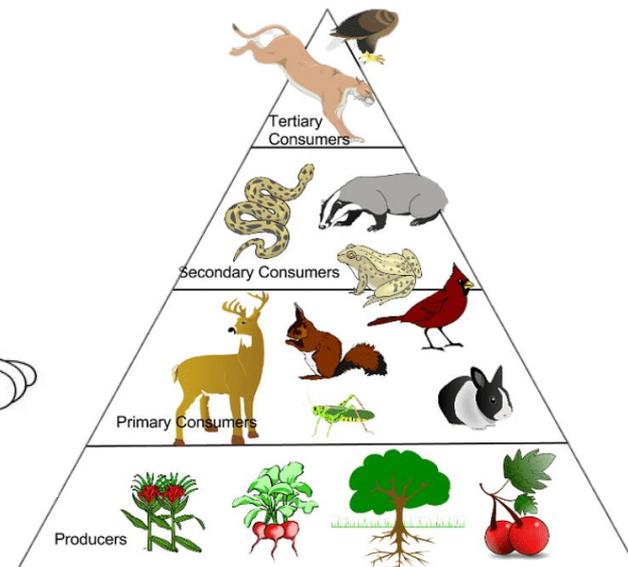
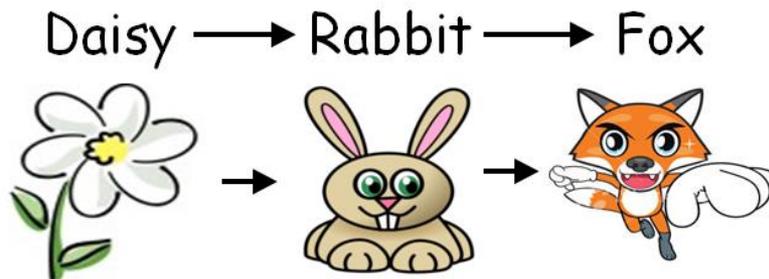
Pyramid of numbers: is a graphical representation that shows the number of organisms at each trophic level.

Biomass: the total quantity (kg) of organisms in a given area or volume.

Pyramid of biomass: A graphical representation of the amount of organic material found in a particular habitat at ascending trophic levels of a food chain.

Food Chain.

* → Shows the movement of energy.



Keyword	Definition
Habitat	The area in which an organism lives
Ecosystem	The interaction between plants , animals, and their habitats in a particular location
Community	The collection of different types of organisms present in an ecosystem
Adaptation	Characteristics that help an organism to survive in its environment
Structural adaptation	Physical feature that the animal has to help it survive
Behavioural adaptation	Something the animal does to aid survival e.g. migration , hibernation
Extremophile	An organism that can survive and reproduce in extreme conditions

Habitats are places where organisms live.

Examples of habitats include:

Desert, meadow, woodland, grassland
forest, seashore, ocean.



Living things are adapted to their habitats. Animals and plants have special **adaptations** or characteristics that help them survive in the habitats.



An African elephant, for example, lives in a hot habitat and has very large ears that it flaps to keep cool.



An Arctic fox lives in a cold habitat, it has thick fur to keep it warm.

Large ears and thick fur are examples of **structural adaptations**.