Biology

Ecology

Habitat
The place where an organism live is called habitat

Population
All organisms of one species living in a habitat

Community
All the different species living in a habitat

Abiotic factors
Non living parts of environment that are temperature light and soil

Biotic factors
living parts of the environment such as food and predators

Ecosystem
A community of living organisms and the non living things around them

Competition

Plants compete for

- Light
- Space
- Water
- mineral ions

Animals complete for

- Territory
- Food
- Water
- mates

Organisms compete with their own species and other species

Interdependence

Species depend on each other for

Food, shelter, pollination , seed dispersal

this is called interdependence

If one species changes or dies

- **Other species are affected**
- **because everything is connected like a chain**

Food web knock on effects

Organism	Effect	reason
Black fly larva	increase	Less Competition for algae
Water spider	decrease	Less water
Stickleback	decrease	Less food

Stable community

- This Community has
- balanced species
- balanced environmental factors
- population sizes stay almost constant

Examples are tropical rainforest old oak Woodlands

Abiotic factors nonliving

- A biotic factors are non living
- Examples
- moisture level, light intensity, temperature, carbon dioxide level,. wind intensity and direction, oxygen level, soil PH and Minerals

ABiotic changes affect populations

Example if there is low light there will be low photosynthesis plant will grow less and then plant population decreases

Low soil minerals then nutrient deficiency plants will grow less

this also affects animals that eat plants

Biotic factors

Biotic factors are living

- **Examples are**
- **New predators, competition, new pathogens, food availability**

Biotic changes also affect populations

Example

- **there is a new Predator so pre polish population decreases**
- **grey squirrels out complete red squirrels and red squirrels decreases**
- **new pathogen can make a special drops suddenly**

Adaptation

Adaptations are the features that help organisms to survive



Structural adaptations means body features

- Arctic Fox they had white fur for camouflage
- Whales have thick blubber to keep warm
- Camel have thin fat and large surface area to loss heat

Behavioural adaptation

- Birds migrate to warmer places in winter
- Penguins huddle together to stay warm

Functional adaptation internal processes

- Desert animals produces very little sweat and concentrated urine
- bears Hibernate means they have low metabolism

Extremophile

microorganisms that live in extreme conditions

- high temperature
- high salt
- high pressure