

## Year 7 Science

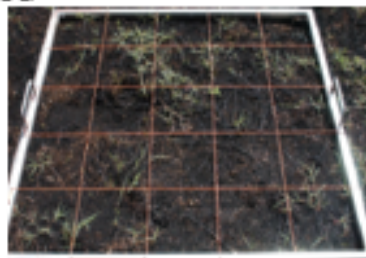
### Summer 1: Ecosystems

#### Ecosystems

1. An **ecosystem** is the interaction of a community of organisms with the non-living parts (abiotic factors) of their habitat. *E.g. a rainforest ecosystem that contains: gorillas, ants, nut trees, lots of water and lots of sunlight*
2. A **population** is a group of the same organism. *E.g. a group of gorillas*
3. A **community** is made of several different populations living in the same area that depend on each other for survival. *E.g. populations of: gorillas, ants and nut trees*

#### Sampling

4. Sampling techniques are used to measure the size of a population in a habitat
5. **Quadrats** are used to count the number of individuals in a specific area



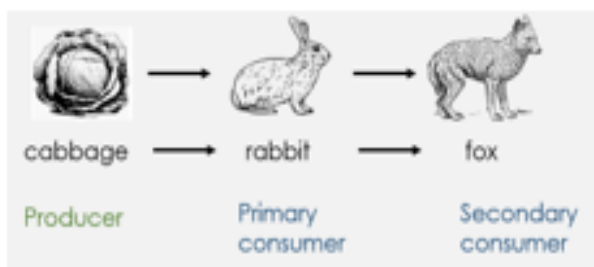
6. **Transects** are used to count the number of individuals in a specific location *e.g. counting the number of daisies as you move further away from a pond*



#### Food Chains and Webs

7. Feeding relationships within a community can be represented by **food chains** and **food webs**
8. The direction of the arrow in a food chain and food web shows the direction

9. **Producers** are plants that can make their own food (glucose) using sunlight in the process of photosynthesis
10. **Primary consumers** eat producers, **secondary consumers** eat primary consumers and **tertiary consumers** eat secondary consumers



11. **Predators** are consumers that eat other animals, called **prey**
12. In a **stable community** the numbers of predators and prey increase and decrease in cycles
13. If there is a change in one population then this affects other populations in the community. You can use a food web to predict what changes could happen

#### Abiotic and Biotic factors

14. **Biotic factors** are **living** things that can affect a community
15. Examples of biotic factors are: food, disease and predators
16. **Abiotic factors** are **non-living** things that can affect a community
17. Examples of abiotic factors are: temperature, light, wind, amount of water

#### Competition

18. Animals often compete with each other for space, mates and food
19. Plants often compete with each other for space, water, minerals and light
20. The best competitors are most likely to survive