Term 6: How healthy is our local pond ecosystem?

Year 9 Term 6

Trinity Academy Bradford | Trinity Academy Halifax

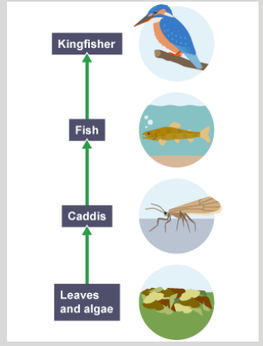
(1) Keywords

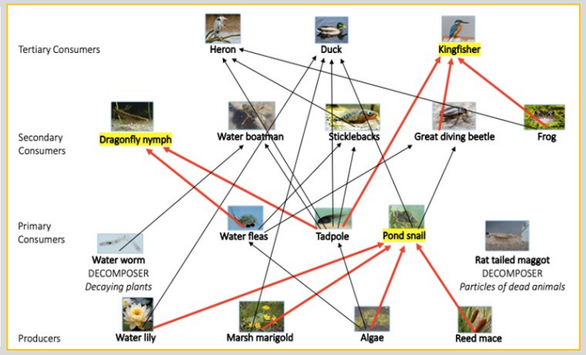
Abiotic	The non-living components of an ecosystem e.g., rocks, sunlight, water
Biotic	The living components of an ecosystem e.g., animals, plants
Producer	An organism that creates its own food
Consumer	An organism that must eat other organisms to survive
Decomposer	An organism that decomposers (breaks down) dead matter into nutrients to be recycled.
Food chain	A linear series of organisms dependent on the next as a food source
Food web	A complex system of interdependent food chains
Ecosystem	A natural system made up of plants, animals and the environment

(2) How do ecosystems function?

Ecosystems must be **balanced** to function. This means that they need more **producers** than **consumers**. The **producers** are then eaten by the **primary consumers**, who are eaten by **secondary consumers**.

If a change occurs, the whole ecosystem can be affected as the organisms are **interdependent (**rely on each other)





(3) Changes in an ecosystem

Many factors can affect an ecosystem, these include both human and physical factors;

Human

- Farmers removing hedgerows to increase field size
- Deforestation
- Tarmacking driveways
- Overfishing
- Damming rivers
- Pollution
- Mining
- Climate Change

Physical

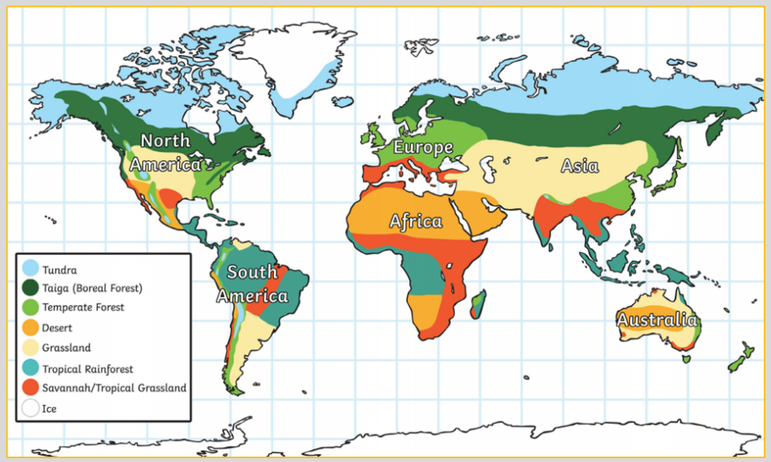
- Droughts
- Storms
- Volcanoes
- Wildfires
- Earthquakes
- Diseases
- Migration

Example

The wolves at Yellowstone National Park had to be reintroduced after hunting until they were gone from the park meant that the whole ecosystem was forced out of its natural equilibrium. This even caused the river to change its course!

(4) Global biomes

Biomes are **large scale ecosystems**. There are many biomes in the world, each with their own **climates**, and plants and animals species that are **adapted** to live in that biome.



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(5) What are the stages of a fieldwork enquiry?

Stage	What **do** Geographers do?
Hypothesis	This is a statement which we will test e.g. 'The pond ecosystem at TAH is healthy.'
Data collection methods	This is where we plan what data to collect, how we will collect it and the equipment we need. We then go outside to collect the data.
Data presentation	Once we have collected our data, we decide how to present it using a variety of appropriate graphs.
Results	We study our presented data and identify trends and anomalies.
Conclusion	This is where we use the evidence we have collected and conclude whether or not our hypothesis was correct.
Evaluation	This final state is arguably the most important. Here we judge whether or not our conclusion is reliable and how we might improve our techniques to get a more reliable conclusion in the future.

(6) Data presentation

There are many methods of data presentation. Two examples that are common include pie chart and bar charts.

Both charts are good presentation techniques to show quantitative data and they allow for easy comparisons to be made allow between data. Both are clear to see and easy to read.

Pie charts are also great for showing percentages, however do not show the exact amount when in a percentage. Which can be a **limitation.**