

Habitat Explorers

Living things and their habitats

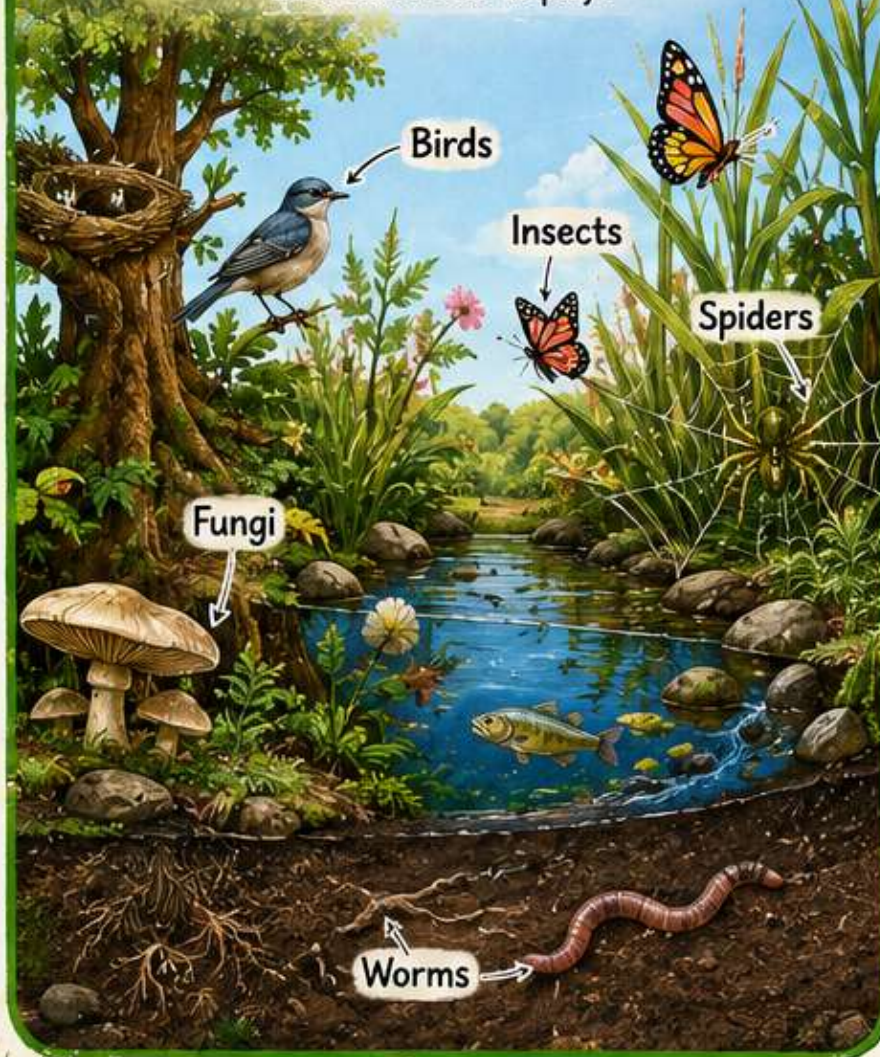
A habitat is the natural place where living things live, find food, water and shelter.

Look closely!

Many different organisms live together in a habitat. They depend on each other to survive.

ORGANISMS IN A HABITAT

A habitat is home to many living things. Each has a role to play!



PLANTS

Plants make their own food using sunlight, water and air.



- Provide food and oxygen
- Provide shelter
- Help keep the soil healthy

INSECTS

Insects are small animals with six legs.



- Pollinate flowers
- Break down dead matter
- Food for other animals

BIRDS

Birds have feathers, wings and beaks.



- Eat insects and seeds
- Spread seeds
- Help control populations of other animals

WORMS

Worms live in the soil and are important helpers.



- Break down dead leaves and organic matter
- Improve soil texture
- Help plants grow

FUNGI

Fungi include mushrooms, moulds and yeasts.



- Break down dead organisms
- Return nutrients to the soil
- Some form partnerships with plant roots

SPIDERS

Spiders are not insects. They have eight legs.



- Catch insects in webs
- Help control insect numbers
- Food for birds and other animals

EVERY ORGANISM MATTERS!

All living things in a habitat are connected. If one is affected, others are too.



Observe it.



Respect it.



Protect it.



Be a Habitat Explorer!



Who Eats What?

Every living thing is part of a food chain or food web.

All living things need food to survive.
Food chains show how energy moves through a habitat.

Energy flows from producers to consumers to decomposers.

PRODUCERS

Make their own food.
They are the start of every food chain!



Grass



Trees



Flowers



Algae



Seaweed



Phytoplankton

Producers use sunlight, water, air and nutrients to make food.

CONSUMERS

Cannot make their own food.
They get energy by eating other living things.

PRIMARY CONSUMERS

Eat plants.



Caterpillar



Snail



Rabbit



Grasshopper

SECONDARY CONSUMERS

Eat primary consumers.



Frog



Lizard



Small Bird



Fish

TERTIARY CONSUMERS

Eat other consumers.



Snake



Hawk



Owl



Shark



DECOMPOSERS

Break down dead plants, animals and waste.

They return nutrients to the soil.



Fungi (Mushrooms)



Bacteria



Mould



Earthworms



Woodlice



Termites

Decomposers help to recycle nutrients so producers can grow.

EXAMPLE: A SIMPLE FOOD CHAIN



Grass (Producer)



Grasshopper (Primary Consumer)



Frog (Secondary Consumer)



Snake (Tertiary Consumer)



Fungi (Decomposer)



THINGS TO THINK ABOUT

- What would happen if there were no producers?
- What might happen if frogs disappeared?
- Why are decomposers important?

All living things are connected.



We need each other to survive!



FOOD CHAIN BUILDERS

Energy moves from one living thing to another in a food chain.

1 Grass → Mouse → Snake → Wedge-tailed Eagle



Grass
Producer



Mouse
Consumer
(Primary)



Snake
Consumer
(Secondary)



Wedge-tailed Eagle
Consumer
(Tertiary)

2 Grass → Grasshopper → Lizard → Falcon



Grass
Producer



Grasshopper
Consumer
(Primary)



Lizard
Consumer
(Secondary)



Falcon
Consumer
(Tertiary)

3 Native Seeds → Mouse → Owl



Native Seeds
Producer



Mouse
Consumer
(Primary)



Owl
Consumer
(Secondary)

STUDENTS LABEL:



PRODUCER

Living things that make their own food using sunlight, water and air.

Example: grass, plants, native seeds



CONSUMER

Living things that cannot make their own food. They get energy by eating other living things.

Example: mouse, snake, lizard, eagle



DECOMPOSER

Living things that break down dead plants, animals and waste. They return nutrients to the soil.

Example: fungi, bacteria, worms, insects

DECOMPOSERS AT WORK



Fungi



Worms



Insects

Decomposers recycle nutrients so the food chain can start again.



All food chains are **connected**. If one part changes, it can affect **everything**!

SAVE OUR GRASSLAND

Healthy grasslands. Healthy wildlife. Healthy future.

Grasslands are home to many amazing plants and animals.
But they are under threat.

Grasslands
need us,
and we need
grasslands!

ISSUES AFFECTING GRASSLANDS



INVASIVE FOXES



Foxes hunt native animals such as small mammals, birds and reptiles.

WHAT HAPPENS?

Native wildlife numbers drop and ecosystems become unbalanced.



RABBITS



Rabbits eat lots of grass and plants and dig burrows that damage the soil.

WHAT HAPPENS?

Plants are eaten faster than they can grow. Soil is left bare and erosion increases.



DROUGHT



Low rainfall means there is less water for plants, animals and soil.

WHAT HAPPENS?

Plants dry out and die. Animals struggle to find water and food.



BUSHFIRE



Fire can burn large areas of grassland and destroy plant and animal habitat.

WHAT HAPPENS?

Plants and animals can be killed. Recovery takes a long time.



OVERGRAZING



Too many animals eat too much grass and trample the soil.

WHAT HAPPENS?

Grass doesn't have time to grow back. Soil gets damaged and plants die.



POLLUTION



Rubbish, chemicals and waste can harm plants, animals and soil.

WHAT HAPPENS?

Animals can get sick or die. Soil and water become unsafe.



WHAT CAN WE DO?



Protect native plants and animals.



Control invasive foxes and rabbits.



Save water and use it wisely.



Prevent bushfires and be fire ready.



Manage grazing to protect the land.



Keep our grasslands clean.

Healthy grasslands support all living things.
Let's work together to protect them for today and tomorrow!



GRASSLAND CONSERVATION EXPO

(ASSESSMENT)

LEARNING INTENTION

We are learning to communicate scientific findings to an identified audience.

SUCCESS CRITERIA

- ✓ I can explain feeding relationships.
- ✓ I can communicate using scientific vocabulary.
- ✓ I can persuade others using evidence.

ASSESSMENT

Students become environmental scientists presenting to the Local Council.

Each student creates a Grassland Conservation Report.



STUDENTS PRESENT THEIR FINDINGS

Students present their findings and answer questions from classmates acting as council members.



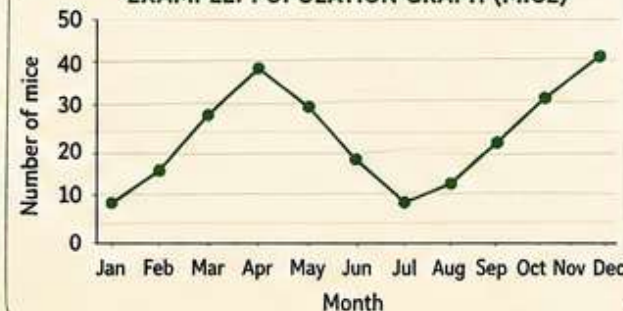
GRASSLAND CONSERVATION REPORT MUST INCLUDE:

1. Grassland habitat description
2. Producers
3. Consumers
4. Decomposers
5. Three food chains
6. Correct energy arrows
7. Population graph
8. Patterns identified
9. Mouse population prediction
10. Dependence for protecting the habitat
11. Scientific vocabulary
12. Persuasive conclusion explaining why the council should act

EXAMPLE: THREE FOOD CHAINS

1. Grass → Mouse → Snake → Wedge-tailed Eagle
2. Grass → Grasshopper → Lizard → Falcon
3. Native Seeds → Mouse → Owl

EXAMPLE: POPULATION GRAPH (MICE)



EXAMPLE PATTERNS

- Mouse numbers increase from Jan to Apr.
- Numbers drop from May to Jul.
- Numbers rise again from Aug to Dec.

EXAMPLE: PREDICTION



I predict the mouse population will continue to increase over the next three months because there is more grass and food available.

SCIENTIFIC VOCABULARY

- Habitat
- Organism
- Living
- Non-living
- Producer
- Consumer
- Decomposer
- Food chain
- Feeding relationship
- Energy
- Predator
- Prey
- Ecosystem
- Biodiversity
- Population
- Graph
- Pattern
- Prediction
- Evidence
- Invasive species
- Native species
- Conservation
- Conclusion



Your mission: Use science. Use evidence. Use your voice. Help protect our grasslands for the future!