

Food supply Name five ways humans have increased food production.	Food supply Why do farmers use herbicides?
Food supply Why do farmers use insecticides?	Food supply What is a monoculture?
Food supply Disadvantages of large-scale monocultures?	Food supply Advantages and disadvantages of intensive livestock production?
Habitat destruction Define biodiversity.	Habitat destruction Three reasons for habitat destruction?

To kill weeds and so reduce competition with the crop for light, water and ions.

Machinery, chemical fertilisers, insecticides, herbicides and selective breeding.

Growing a single crop plant on a large area of land.

To kill insect pests so that crop quality and yield improve.

Advantage: much food from little land at low cost. Disadvantage: welfare problems, disease spread, waste pollution.

Pests and disease spread quickly; low biodiversity; lots of fertiliser needed; chemicals can pollute water.

Housing, crop and livestock production; extraction of natural resources; freshwater and marine pollution.

The number of different species that live in an area.

Habitat destruction

How can humans harm habitats through food webs?

Habitat destruction

Five undesirable effects of deforestation?

Habitat destruction

Why does deforestation cause soil loss?

Pollution

Effects of untreated sewage on a river?

Pollution

How does fertiliser get into rivers?

Pollution **Supplement**

Order the stages of eutrophication.

Pollution **Supplement**

What causes the fall in dissolved oxygen in eutrophication?

Pollution

Why are plastics a problem in the environment?

Reduced biodiversity, extinction, loss of soil, flooding, increase of carbon dioxide in the atmosphere.

By removing or adding species, which alters food chains and food webs and affects other organisms.

Adds nitrates, microorganisms and organic matter; oxygen is used up and organisms die.

Without tree roots to hold it, soil is washed away by rain.

More nitrate, producers grow, producers die and decompose, aerobic respiration by decomposers, oxygen falls, organisms die.

Rain washes (leaches) excess fertiliser from fields into streams and rivers.

They are non-biodegradable, so they persist and harm animals by blockage or entanglement.

Increased aerobic respiration by decomposers breaking down dead producers.

Pollution

Two effects of plastic on land?

Pollution

Sources of carbon dioxide and methane?

Pollution

What is the enhanced greenhouse effect?

Conservation

Define a sustainable resource.

Conservation

Which two resources can be managed sustainably?

Conservation **Supplement**

How can forests be conserved?

Conservation **Supplement**

How can fish stocks be conserved?

Conservation **Supplement**

Why use a larger net mesh size?

CO₂: burning fossil fuels and forests.
Methane: cattle, rice paddy fields, landfill.

Fills landfill sites; animals eat or are trapped
by plastic; chemicals build up in soil.

One produced as rapidly as it is removed
from the environment so that it does not run
out.

Extra infrared radiation trapped by raised
CO₂ and methane levels, warming the Earth
and causing climate change.

Education, protected areas, quotas and
replanting.

Forests and fish stocks.

Young fish escape and can grow and breed.

Education, closed seasons, protected
areas, controlled net types and mesh size,
quotas and monitoring.

Conservation

Causes of endangerment and extinction?

Conservation

Four ways to conserve endangered species?

Conservation

What is a seed bank?

Conservation **Supplement**

What is artificial insemination (AI)?

Conservation **Supplement**

What is IVF?

Conservation **Supplement**

Reasons for conservation programmes?

Conservation **Supplement**

Risk of a small population?

Monitoring and protecting species and habitats, education, captive breeding programmes, seed banks.

Climate change, habitat destruction, hunting, overharvesting, pollution and introduced species.

Sperm is collected and placed into a female by people, without natural mating.

A store of seeds of rare plants, kept so plants can be grown if wild populations are lost.

Maintain biodiversity, reduce extinction, protect vulnerable ecosystems, maintain nutrient cycling and resources (food, drugs, fuel, genes).

Fertilisation of eggs by sperm outside the body; embryos are then placed into a female to develop.

Reduced genetic variation, so disease or environmental change may kill all individuals.