

Heat from the sun travels to Earth as **solar radiation**

Humans have changed many habitats by removing plants and animals and altering soil

Clouds, ice, land, and other things **reflect** some of the radiation

When large sea creatures die, their bodies (and the carbon) sink to the seabed

Ice reflects
70-90% of
radiation
hitting it

Places are being
rewilded to
allow humans
to work with
nature more
closely

Storms,
hurricanes,
floods, droughts
and fires are
happening
more often

Humans have
been damaging
soil through
building houses
and causing
erosion

More
greenhouse
gases means
more heat
energy in the
atmosphere

In England,
beavers are
helping slow
the flow of
rivers and
flooding by
natural dams

Climate
determines
what can be
grown where
and
what habitats
can exist

Slow moving
rivers reduce
pollution
and help soil
recover

The Sun's
energy controls
the climate
on Earth

By returning
wolves to
Yellowstone
National park,
rivers changed,
and trees
grew back

Plants on land
and in the sea
take in carbon
dioxide and give
out oxygen

Temperatures
around
the world
are slowly
increasing

Farm animals
produce large
amounts of
greenhouse gas

Animals and
plants in the
sea **absorb**
carbon into
their bodies

Greenhouse
gases include
carbon dioxide
and methane

Modern life,
cars, factories,
and heating use
lots of coal, oil,
and gas (fossil
fuels)

Humans are
damaging the
oceans through
pollution and
overfishing

More people
are using
renewable
energy

Solar radiation
is a type
of **energy**
which warms
things up

Large cattle
farms and
plantations
have been made
where forests
used to be

Earth's
atmosphere
acts like a
greenhouse
and traps
some energy

Many animals
play an
important role
in their habitats

Burning oil, coal
and gas makes
carbon dioxide

More people
are using
sustainable
transport

As the earth's temperature rises, ice melts and raises sea level

Millions of trees are being planted around the world

Soils are a great **store** of carbon

More people are eating less meat and a more plant based diet

Key words — Definitions



- Solar radiation:** Energy traveling from the sun that reaches Earth's atmosphere
- Energy:** A source of power, like heat
- Reflect:** To send back some of the energy from the sun
- Absorb:** To take in (like water in a sponge)
- Store:** To hold onto, to keep it locked away.
- Erosion:** The wearing away or loss of soil. Often by water or wind
- Plantations:** A type of farming where one crop is grown in large areas
- Pollution:** Putting harmful things into the air, water, land and sea.
- Overfishing:** Taking too many fish from the sea so that they reduce in number
- Rewilded:** Returning a place to a more natural situation, may include returning species to a habitat.
- Sustainable:** To keep something going. Using a resource without harming future generations chance to use it.
- Renewable Energy:** Natural sources of energy that do not run out like fossil fuels. Examples include solar, wind and tidal energy.

Heat from the sun travels to Earth as **solar radiation**

Humans have changed many habitats by removing plants and animals and altering soil

Ice reflects 70-90% of radiation hitting it

Places are being **rewilded** to allow humans to work with nature more closely

Clouds, ice, land, and other things **reflect** some of the radiation

When large sea creatures die, their bodies (and the carbon) sink to the seabed

Storms, hurricanes, floods, droughts and fires are happening more often

Humans have been damaging soil through building houses and causing **erosion**

More greenhouse gases means more heat energy in the atmosphere

In England, beavers are helping slow to flow of rivers and flooding by natural dams

The Sun's energy controls the climate on Earth

By returning wolves to Yellowstone National park, rivers changed, and trees grew back

Climate determines what can be grown where and what habitats can exist

Slow moving rivers reduce pollution and help soil recover

Plants on land and in the sea take in carbon dioxide and give out oxygen

Temperatures around the world are slowly increasing

Farm animals produce large amounts of **greenhouse gases**

Animals and plants in the sea **absorb** carbon into their bodies

Humans are damaging the oceans through **pollution** and **overfishing**

More people are using **renewable energy**

Greenhouse gases include carbon dioxide and methane

Modern life, cars, factories, and heating use lots of coal, oil, and gas (fossil fuels)

Solar radiation is a type of **energy** which warms things up

Large cattle farms and **plantations** have been made where forests used to be

Earth's atmosphere acts like a greenhouse and traps some energy

Many animals play an important role in their habitats

As the earth's temperature rises, ice melts and raises sea level

Millions of trees are being planted around the world

Burning oil, coal and gas makes carbon dioxide

More people are using **sustainable** transport

Soils are a great **store** of carbon

More people are eating less meat and a more plant based diet

Look at the connection you have made and ask

What if.....?

Positive outcomes

1. **The sea and animals in it were protected from harm?**
2. **More humans chose to travel by bicycle or walk?**
3. **Areas of land were left to go wild?**
4. **Important animals were returned to their habitats?**
5. **We decided to look after the soil and stop it washing away?**
6. **Took more care of nature?**

Negative outcomes

1. **We keep on polluting the land and sea?**
2. **Habitats are lost to human activities?**
3. **We use transport that is not sustainable?**
4. **We allow wildlife and habitats to disappear?**