

■ = causes ■ = impacts



Pollution

Deforestation

CLIMATE CHANGE

Burning Fossil Fuels

Rising sea levels

Cattle Farming (Methane)

Rising Temperatures

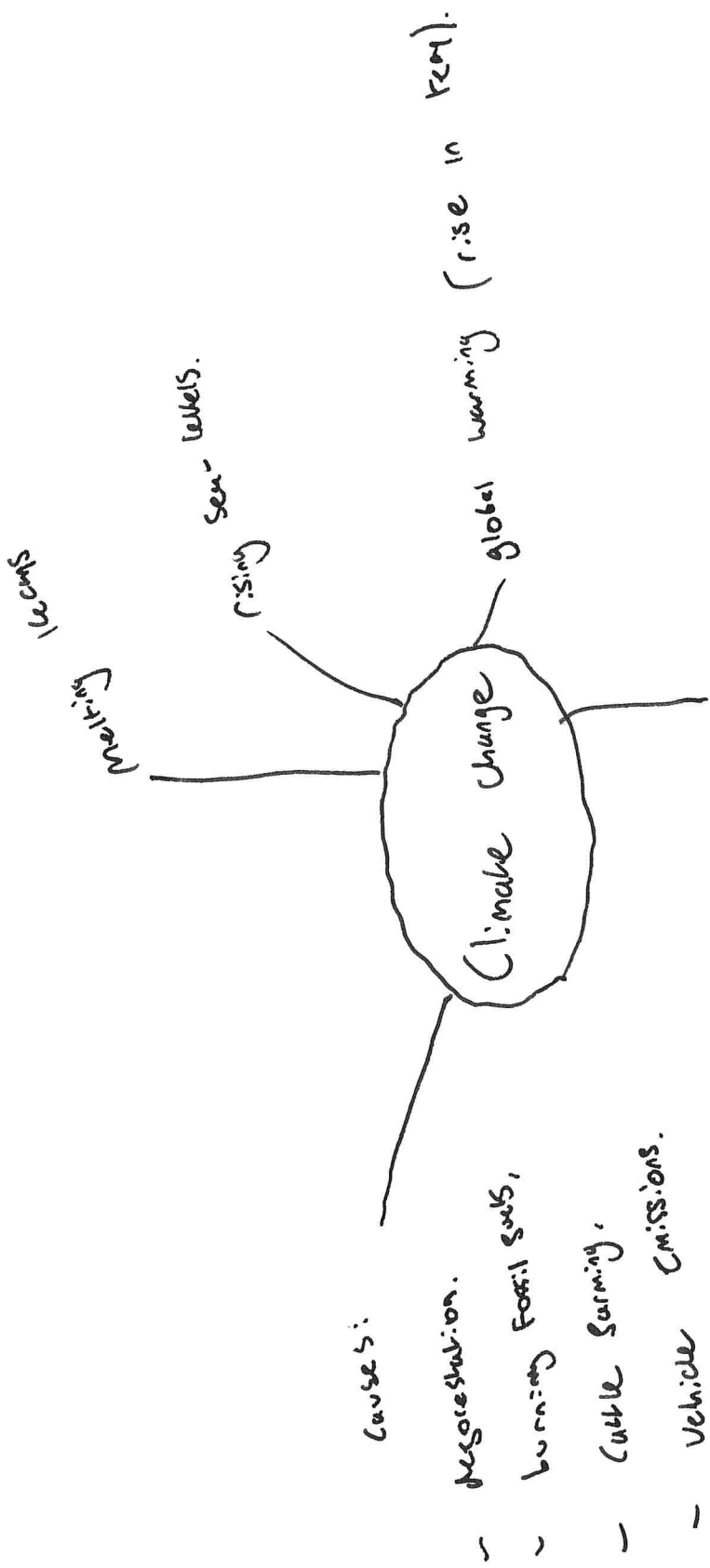
Vehicle exhaust (Emissions)

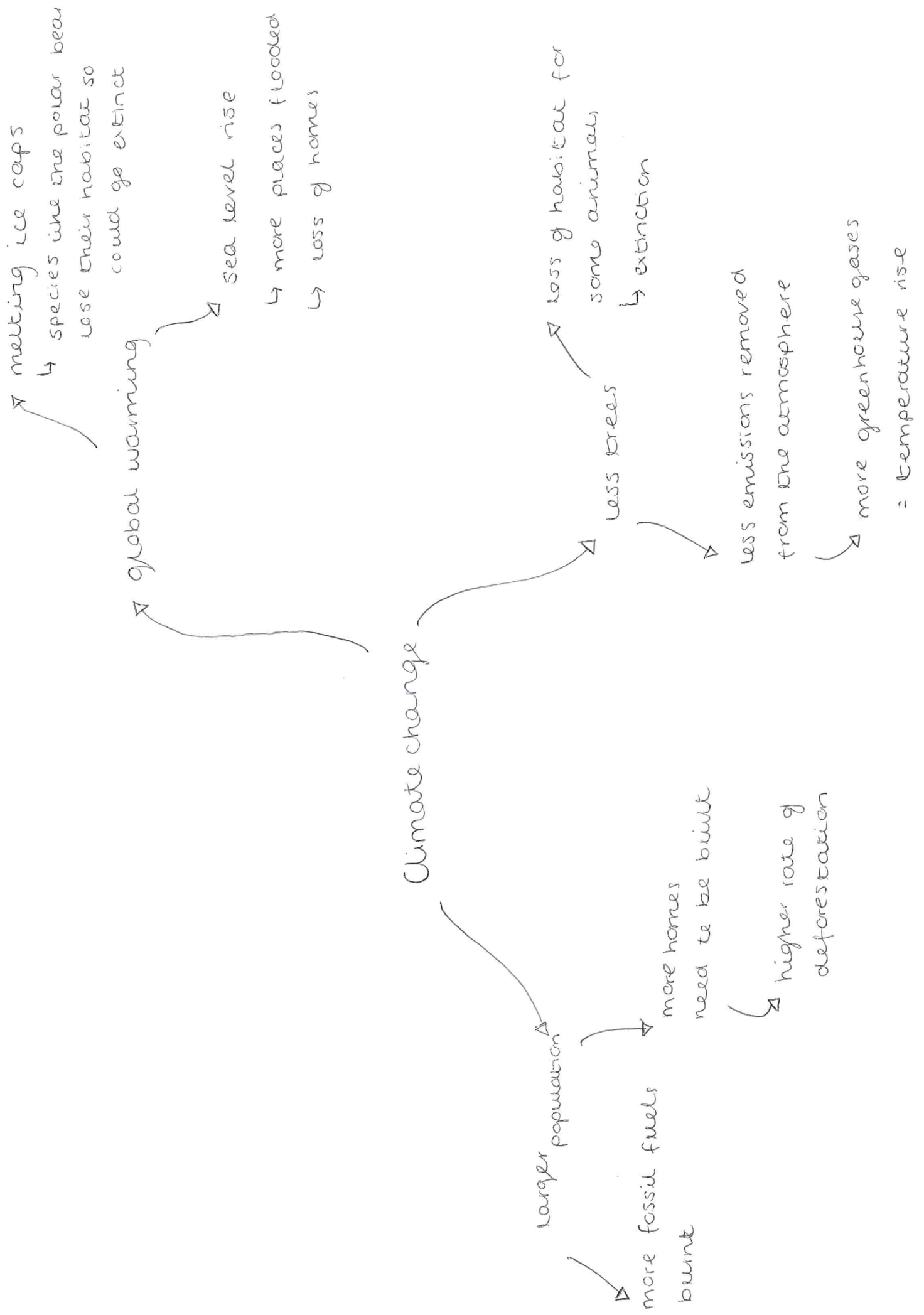
Other (Carbon) emissions

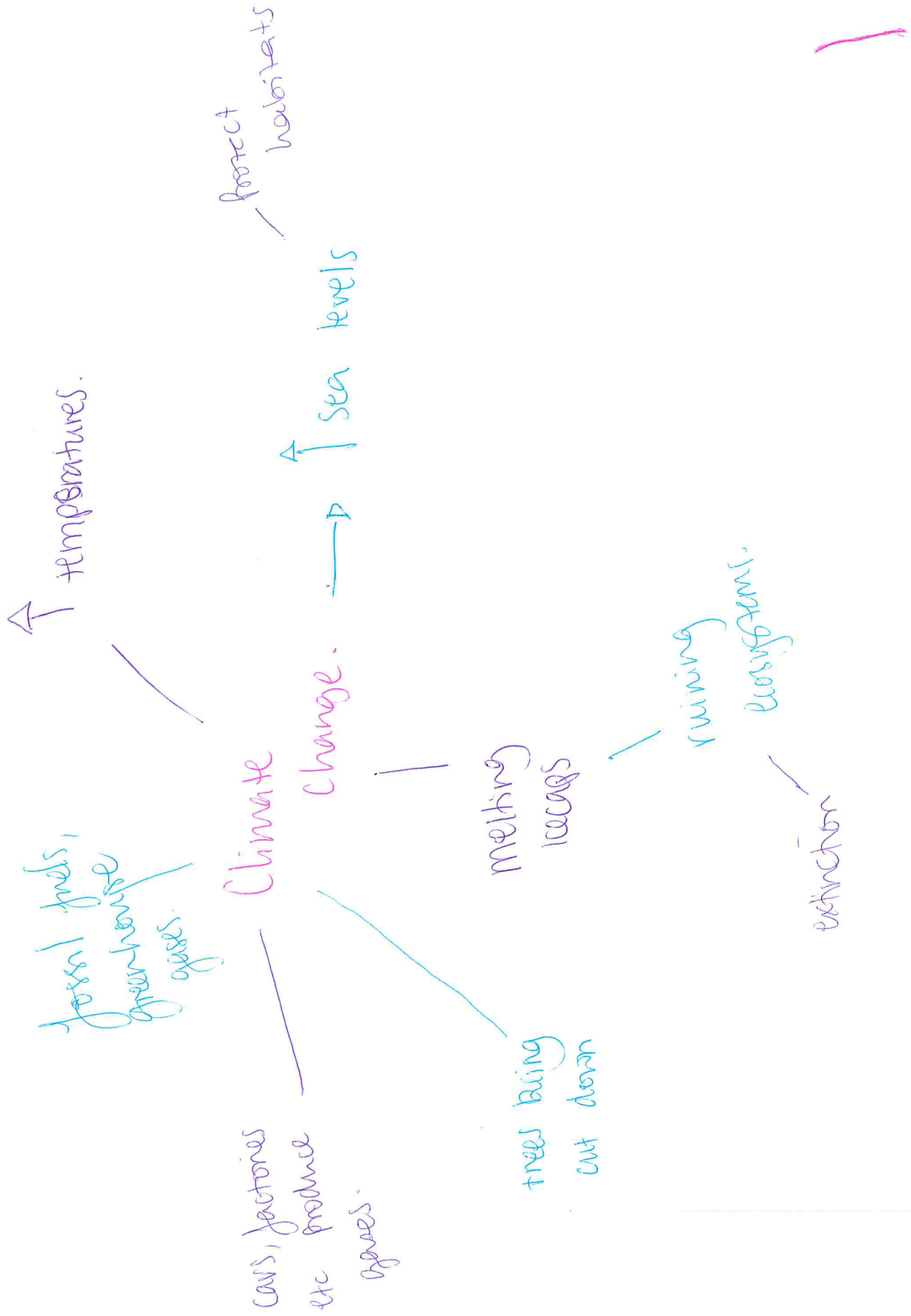
Melting Icebergs

Global Warming

James







Carbon Sinks. — Amazon

About 40 football pitches are being cut down every day.

Heating & Cooling of the Earth.

Natural climate change.

Climate Change.

Protect:
trees.

Enhanced Greenhouse Effect

Build up of carbon emissions in atmosphere, traps in heat and sun insolation causing the earth to heat up faster and cool down slower.

Increased heat leads to rising sea levels.

Causes an increase in frequency and severity of extreme weather (flooding, hurricanes, droughts).

Carbon emissions

Carbon emissions.
Natural increase in gas from human activity from excessive burning of cattle increases methane.

By enhancing these gases a thick layer is formed which traps the radiation from the sun

Enhanced GHGs

CH₄ (methane)
cattle farming, rice fields
uncontrolled decomposition
of waste release methane
to the atmosphere

CO₂ (Carbon dioxide)
burning fossil fuels, trees
cutting down trees increases
the amount of carbon dioxide
in the atmosphere

Steam (H₂O)
water rising from
hot areas around
the world

Climate Change

Greenhouse Effect
There is a natural
layer which warms up
earth to make living
possible. It traps radiation
from the sun and it reflects
radiation back to earth
instead of losing it to space

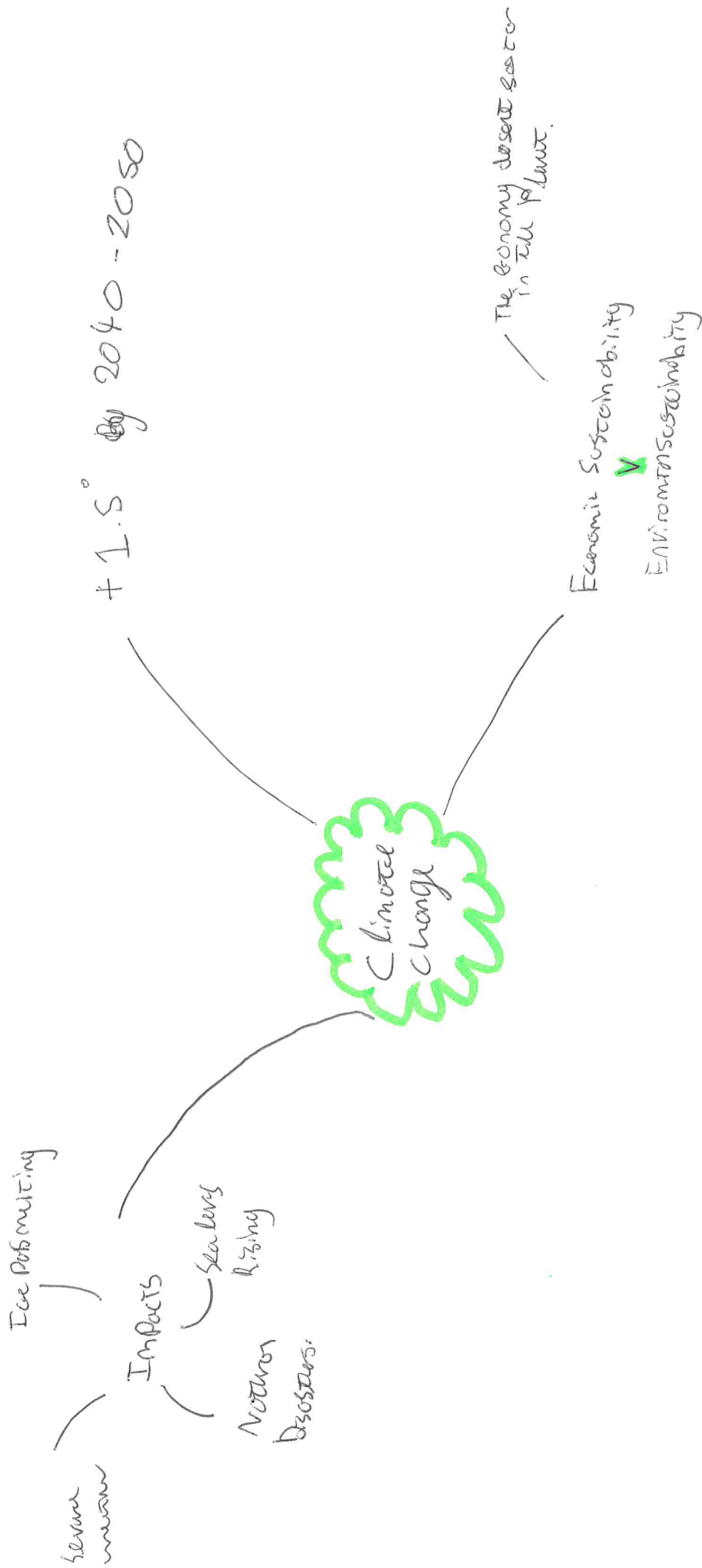
Volcanic activity / Earth's
tilt

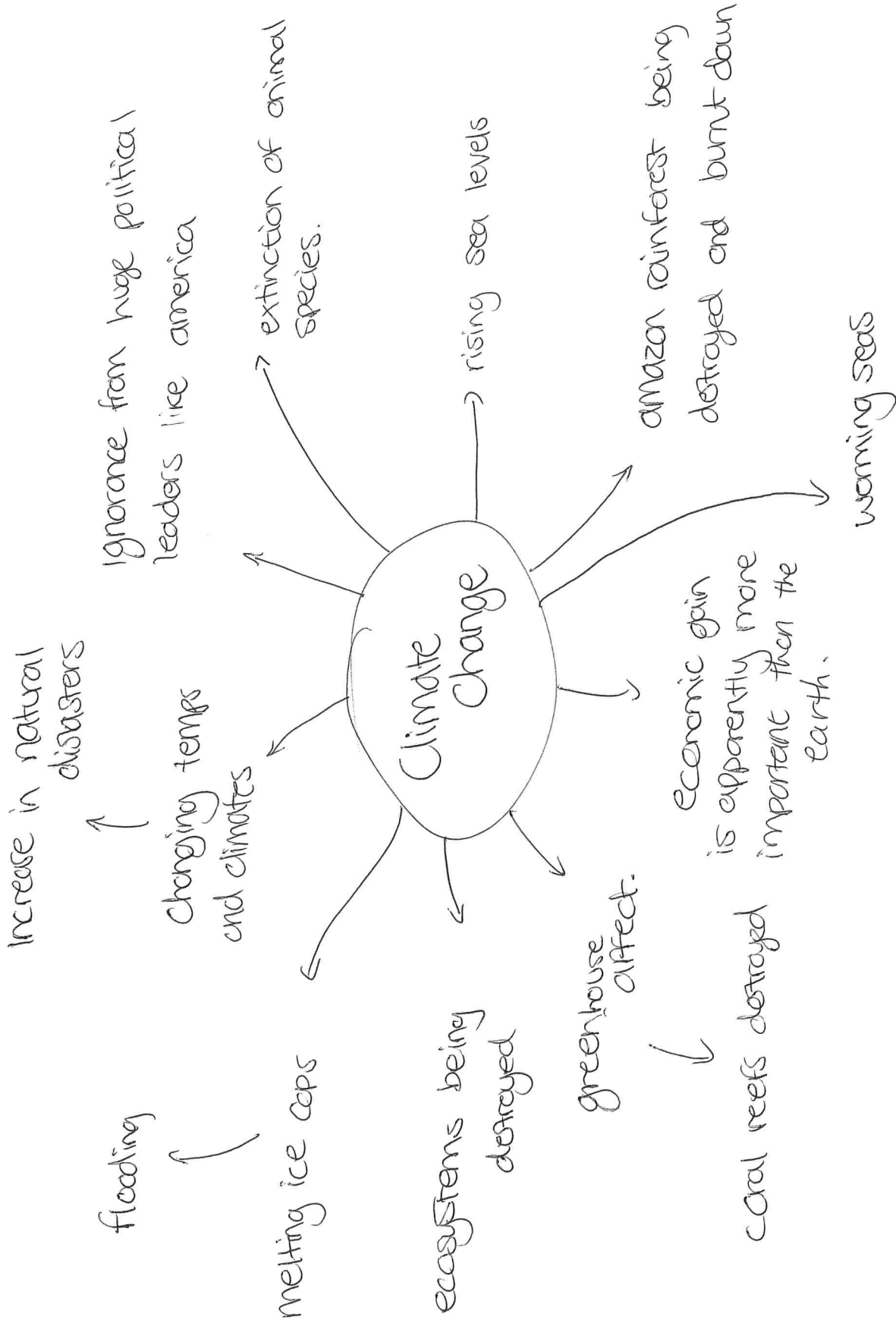
Natural effects cause
the earth to cool down
or warm up

air currents that warm up Europe
so it will soon enter another
ice age.

Impacts

Melting ice caps lead
to cold water mixing
with sea water. This
cold water will eventually
freeze the warm sea and

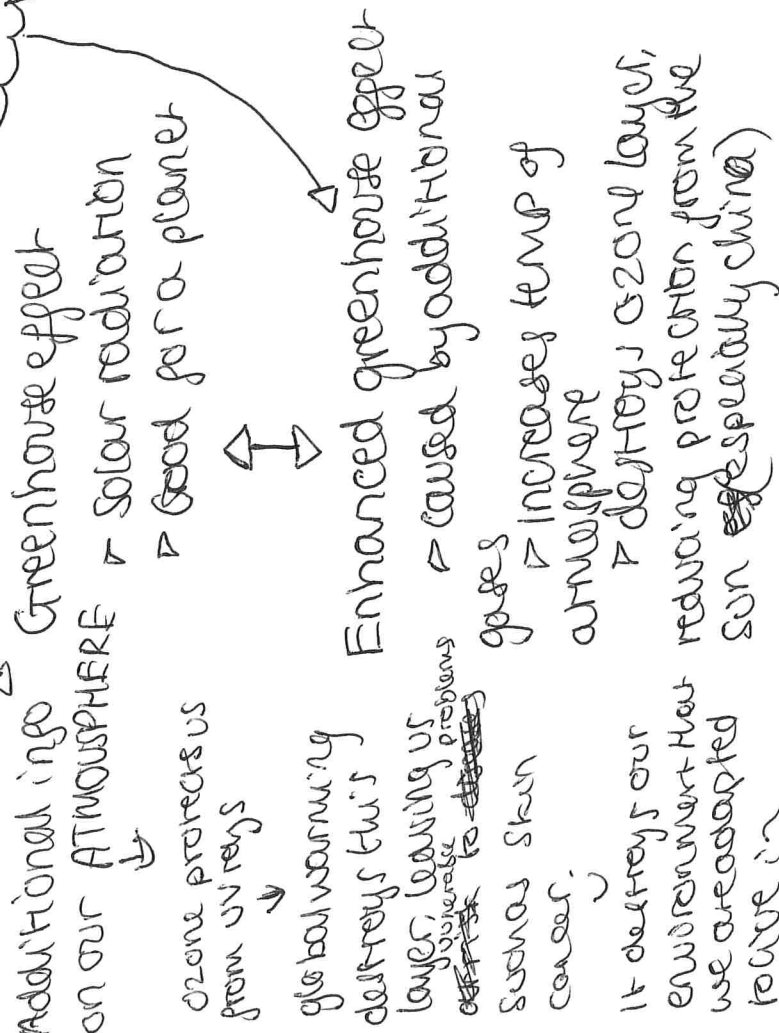




Extinction Rebellion:

- > Children taking action against MPs leaving ~~the~~ climate change action stagnant.
- > Disrupting air transport
- > slowing down the economy by causing minor / major inconveniences
- > Greta Thunberg, (Swedish child), seems to be the figure head of this movement.

Climate Change



Greenhouse effect

- > Solar radiation
- > Good for a planet

Enhanced greenhouse effect

- > caused by additional gases
- > Increases temp of atmosphere
- > depletes ozone layer, reducing protection from the sun especially China

Additional info on our ATMOSPHERE

- > Ozone protects us from UV rays
- > global warming
- > decreases turt's layer, leaving us vulnerable to ~~problems~~ problems
- > skin cancer
- > It decreases our environment that we are adapted to live in

Rising sea levels

Interrelated

- > Melting ice caps (burgs)
- > melting glaciers
- > Thermal expansion
- > Melting permafrost (releasing gases)

- > Bleaches coral, thus destroying underwater biomes (coral reefs)
- > MANY sea creatures have to migrate elsewhere, leaving behind feeding/breeding grounds

- > Rising sea levels - London, Maldives and other low areas could all be under water if levels rise by 5m/2m.

CLIMATE CHANGE

as the permafrost melts, tons of methane are released into the atmosphere.

more weather extremes will occur - violent storms, hurricanes

Change in Ocean currents - changes direction of El Niño mean more droughts and floods

The ocean as a carbon sink is becoming more acidic causing coral bleaching

land-ice is melting causing sea level rise and reduces albedo of the Earth's surface

Climate change is causing the extinction of many species because they are not able to adapt to new conditions

Climate change is hard to predict because positive and negative feedback mechanisms can effect the rate of climate change.

will affect food sources for humans as many crops are not suited to new conditions

wind patterns and precipitation will change and water will affect the planet around

as land ice melts salinity of water decreases meaning that convection currents slow

Gulf stream will be affected

wind patterns and precipitation will change and water will affect the planet around

as the permafrost melts, tons of methane are released into the atmosphere.

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Climate change is causing the extinction of many species because they are not able to adapt to new conditions

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consolidating learning and maybe learn more.

Keep crude oil in ground and convert to renewable energies.

Protests

- Extinction rebellion
- Youth Strike for climate
- Greta Thunberg
- D. Attenborough affect

Main pollutants

- Petroil oil industry - Shell
- Meat industry burn forests for space for farming - methane

positive feedback loop

- Planet warms up which warms the ocean
- The ocean releases carbon dioxide when warmed
- Carbon dioxide in the atmosphere warms the ocean

Risks

- we could face irreversible conditions
- Risk of mass starvation
- Less clean, safe drinking water
- Huge mass migration

Climate Change

who will be affected

- New generation
- people living in developing countries
- poorer people
- people living in hazard prone areas
- People living in warmer climates

Increased chances of natural hazards

- Hazards become more common and severe
- flooding displaces people from their homes
- Sea level rise will overtake many islands and parts of mainland continents.

what we should do

- Switch to clean, green energy sources.
- Reduce our own carbon footprint (less plane journeys + carpool + take trains)

Many species go extinct

- Natural habitats such as the arctic melt which puts species such as Polar bears to struggle to live.
- Coral reefs are dying due to the warming sea temp.
- Positive feedback - if fish die or are fished then their predator will also die, and so will their predator.

Increasing
Number of
Animal
extinctions

Rising
Global
Temperature

←

Climate

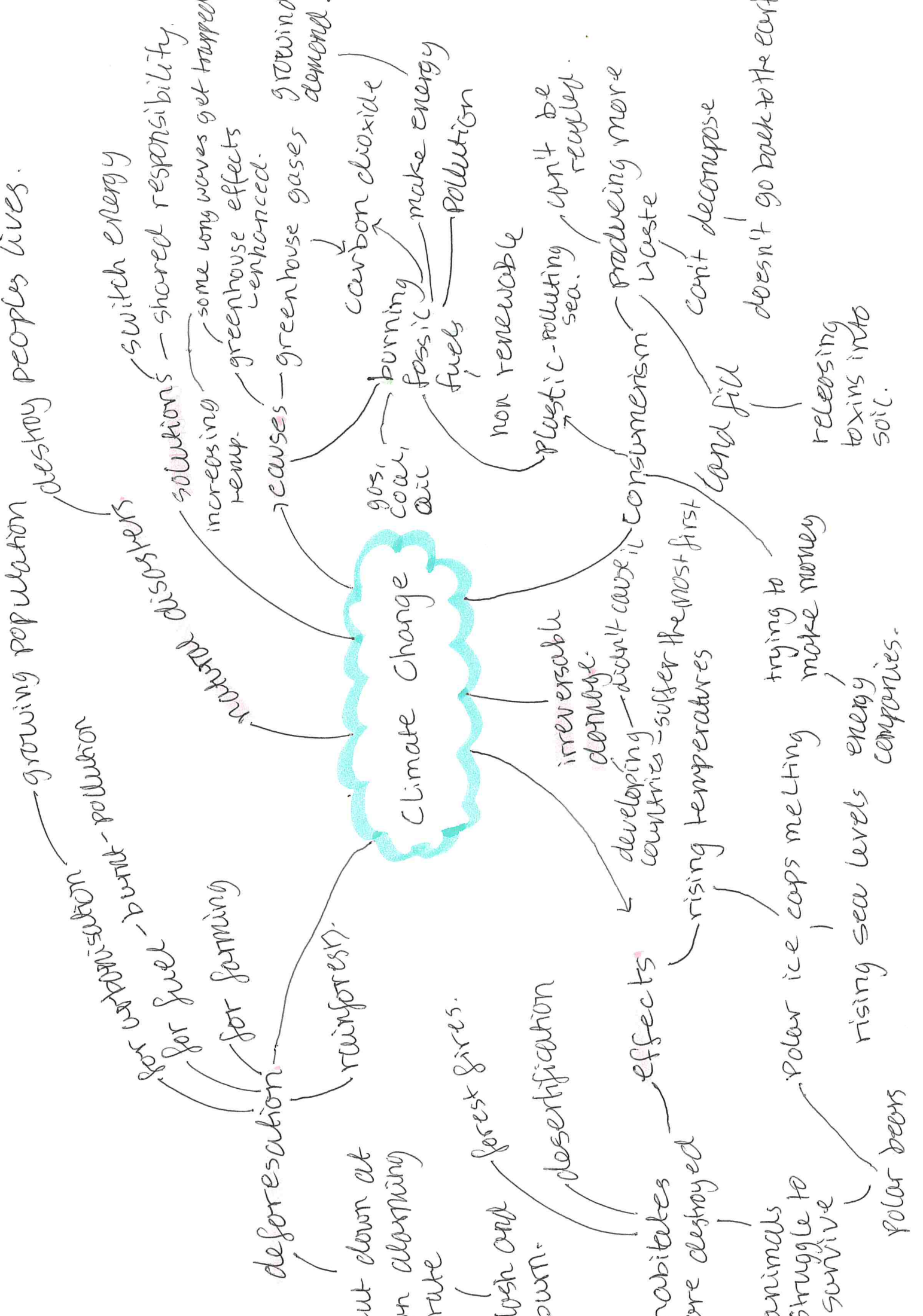
→ Pollution

→ Rising
Sea
Level's

Change →
dying
Ecosystem's

↓

Deforestation



use polluting fuels like petroleum

need for more transport e.g. planes + ferries

growing population

growing demand for energy + electricity

Non-renewable fuels being used up quickly

Fossil fuels

oil, gas, coal

increased carbon dioxide levels in atmosphere

doesn't let heat escape through ozone

- rising sea levels
- forest fires
- melting ice caps

companies selling energy need to stay in business

money

The earth is closer to the sun

Orbital changes

1 cycle every 96000 years



Climate Change

money

energy

Forests being cut down

farming

deforestation

purposefully-made forest fires

Forests act as carbon sink

removes

CO₂ from atmosphere

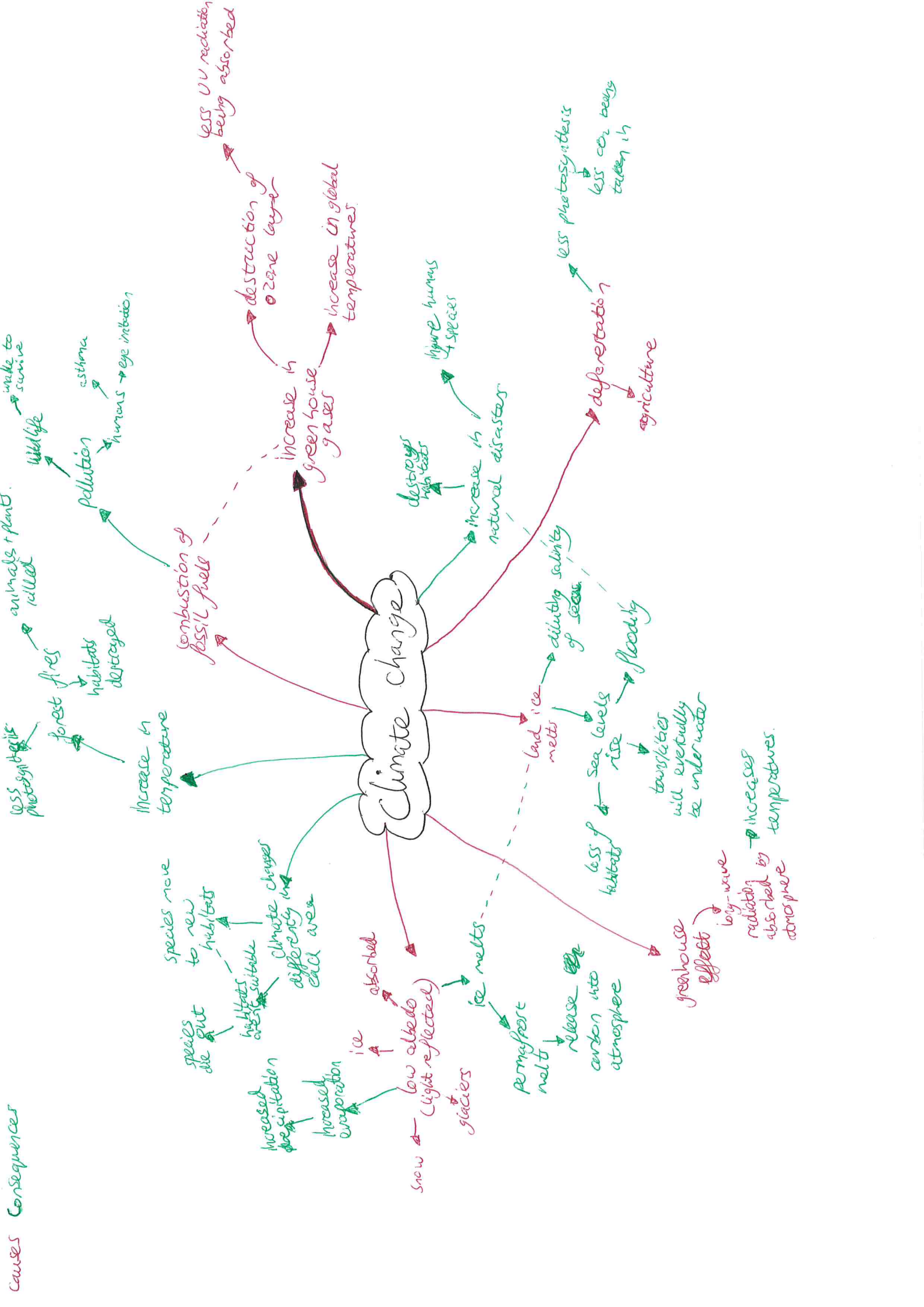
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photosynthesis

= CO₂ into

oxygen

Causes



Consequences



Climate Change

CAUSES

TEMPERATURE RISING
INCREASED EMISSIONS
GREED
RISING IGNORANCE

DEFORESTATION

TRIPLE

Participation

Fossil Fuels
Carbon Footprint

NO HABITATS

DEATH

SEA LEVELS RISE

DESTRUCTION

INCREASED EXTREME WEATHER

40 football pitches of trees = 7min

EXTINCTION OF LIFE

GREED LIFE

RESPONSES

NO FOOD/CROPS
EXTREME WEATHER

DESERTS

USE LESS PLASTIC

eat less meat

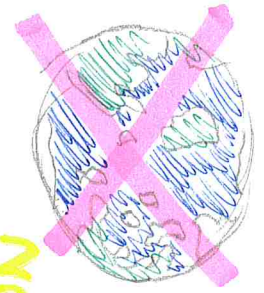
WWF

GREEN PEACE

EXTINCTION

EXTINCTION REBELLION

NO LIFE



PROTEST RECYCLE

FUTURE

NO GREEN