

# Ideas Organiser: FRAGILE EARTH SPRING TERM Y3/4



## Knowledge:

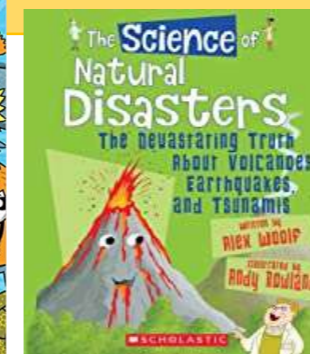
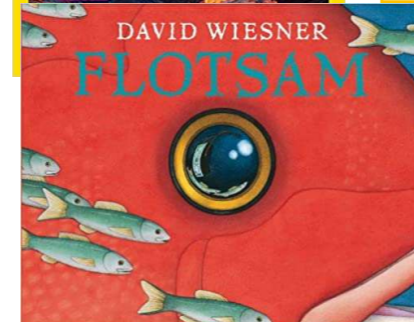
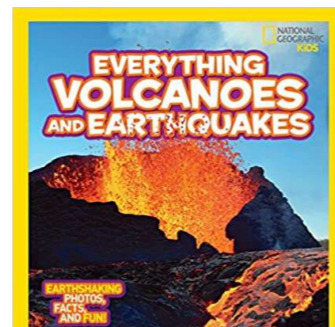
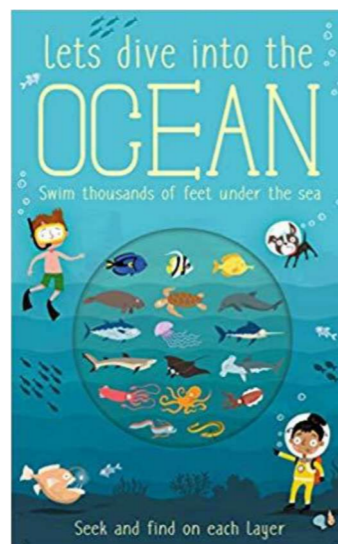
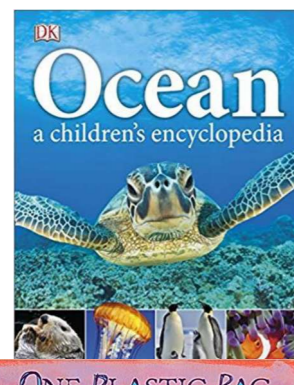
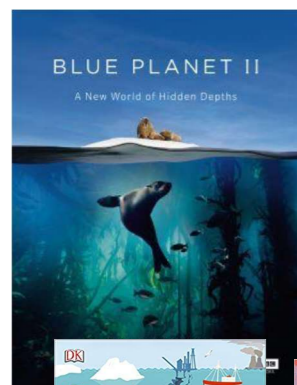
- **Volcanoes** are made when pressure builds up inside the earth. This affects the earth's crust causing magma to sometimes erupt through it.
- Active volcanoes have erupted in the last 10000 years. Dormant volcanoes haven't erupted in the last 10,000 years but may erupt again. Extinct volcanoes aren't expected to erupt again.
- **Water Cycle**- clouds form when warm, moist air is cooled. When it is cooled it condenses into tiny water droplets which appear as clouds. Heat from the sun evaporates water into water vapour, which rises, condenses in the cool air and then falls back down to earth.
- **Changing state**- evaporation occurs when a liquid changes into a gas or water vapour. Condensation is when a gas cools and changes to a liquid.
- **Pollution**- chemicals can poison animals. Litter can be ingested by animals or trap them. Fertilisers can cause a lack of oxygen and kill them.
- **Marine Protection and Conservation**- just under 25% of UK waters are protected. 71% of our Earth is covered by ocean. Tiny marine plants produce over half of the world's oxygen, the ocean absorbs carbon dioxide gases that make our planet warmer and billions of people depend on marine life to sustain their own. If our oceans don't thrive, neither will we.
- **Reducing Pollution**- be careful what you throw down the sink or toilet. Don't throw litter into lakes, rivers or oceans. Use environmentally friendly cleaning products
- **Animal Classification**- animals can be grouped in lots of different ways
- upon their characteristics. You can use classification keys to help group, identify and name a variety of living things.

## Vocabulary and background knowledge:

<b>mantle</b>	A portion of the earth between the crust and the core
<b>magma</b>	Extremely hot, liquid rock
<b>Tectonic plates</b>	The earth's crust is made up of large plates that join together
<b>pollution</b>	Anything introduced into a habitat that is harmful to living things
<b>Water vapour</b>	Heat from the sun evaporates water into water vapour
<b>evaporate</b>	When a liquid turns into a gas or water vapour
<b>condensation</b>	A gas cools and changes to a liquid
<b>estuary</b>	Where a river meets the ocean
<b>tributary</b>	A small river or stream that joins a bigger river
<b>current</b>	The strength and speed of a river
<b>vertebrate</b>	Animals with a back bone
<b>invertebrate</b>	Animals without a back bone
<b>Climate change</b>	Long-term shifts in temperatures and weather patterns



## Recommended Reads:



**Skills:** understanding an atlas-identifying oceans/rivers/continents

Drawing and labelling diagrams-linked to Geography and Science

Using ICT for research-retrieving key facts.

Practical skills-designing and making using recyclable materials-joining/cutting, measuring

## Making Links:

**Mathematical-** statistics linked to plastic pollution/percentages/understanding charts and graphs

**Measuring liquids-link** science/geography

**Understanding measures** linked to heights of mountains/depths of the earth's core etc

**ICT-** research/word processing/making power points

## British Values

**Democracy-** rules against plastic pollution/climate change/write our own manifesto/climate protest/write to an MP

**Tolerance-** listening to views about how to make changes to our lives to protect our planet/Greta Thunberg

**Rule of law-** rules to help protect living creatures

**Mutual Respect-** respecting all living things/ways to respect our environment/make changes to our planet



## Values & attitudes we can always show in this project:



## The World beyond our doorstep...



## Quality Outcomes & Experiences:

- Making our own volcano explode
- Climate change debates/action groups
- Writing a letter to an MP/Head Teacher
- Re-using materials-designing and making
- Organise a whole school Plastic free day.
- Art work linked to Green Turtles
- Poetry inspired by our planet

Local

- exploring our own local environment. Pollution in the Brayford etc/Recycling plants in Lincoln. What happens in our local area to help our planet? Explore local councils.

National

- UK river pollution/know and identify main rivers in UK

International

- Blue Planet- what's happening to our world? Extreme weather because of climate change. What can we do to make a difference?