# Plastic not so fantastic

The world is being severely impacted by the amount of plastic we throw away each year. We need to be the generation to stop this and provide a better future for generations to come!



## WHY ARE WE LEARNING THIS? In year 5, we need to know:

- · That some changes are not reversible, including changes associated with burning.
- . These changes have an impact on our lives and the future of our planet.
- We need to understand that we are the next generation and we should be doing all
  that we can to protect our beautiful planet from harm.
- · We need to understand why recycling and reusing is so important in today's society.

### WHY IS PLASTIC USED?

- Plastic is lightweight, strong and mouldable, which makes it an ideal packaging material.
- Rigid plastic keeps fragile items secure and flex plastic makes easy-to-carry bags for our shopping!
- Food stays fresher for longer when packed in plastic, which
  reduces waste by reducing the amount of spoiled food that
  must be discarded every year. This also reduces the
  amount of preservatives needed to keep food fresh.
- Plastic is an ideal material for manufacturing cars, trucks and other vehicles due to it being lightweight and durable.
- Plastics also make vehicles safer and more comfortable.
   Life-saving seat belts and airbags are made of plastic.

**Pollution** - the presence in or introduction into the environment of a substance which has harmful or poisonous effects.

**Properties** - properties that can be observed or measured without changing the composition of the material **Ecologist** - An ecologist is a scientist who studies how animals and plants interact with their environment.

Opaque or transparent — transparent materials do let light through (you can see through them). Opaque materials do not let any light through (you cannot see through them).

Micro-plastic - extremely small pieces of plastic debris in the environment

Reversible change - a physical change that can be undone

Irreversible change - a physical change that cannot be undone.

Durable - able to withstand wear, pressure, or damage; hard-wearing.

Rigid - unable to bend or be forced out of shape; not flexible.

Malleable - able to be hammered or pressed into shape without breaking or cracking.

Single-use plastic — plastic only used once before they are thrown away or recycled

Conservationist - a person who advocates or acts for the protection and preservation of the environment and wildlife

## **BOOK FOCUS**

# SULLIE SAVES THE SEA

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#### General description:

Sullie the seagull has noticed that plastic pollution is destroying his precious Turtle Beach. He decides to do something about it and calls his friends to action to form a Secret Society. Sullie and his pals take aim at specific thoughtless humans who are causing environmental damage to the beach and to Sullie's ocean pals.



CAN

- Encourage your family to recycle!
- · Research careers that are linked to protecting the environment.
- Keep a plastic diary to log how much single-use plastic you use at home!
- Plastic pollution this is when plastic is where it shouldn't be! It's in the sea, on the beach and it is causing harm.
- Micro-plastic in the ocean is consumed by plankton which, in turn, becomes part of our food chain.
- We're using more plastic than ever due to it being durable and cheap to produce.
- There could be more plastic in the ocean than fish by 2050.
- Plastic is a risk to the lives of birds and animals that live in our seas (e.g. whales, dolphins and turtles)
- At least 8 million tons of plastic enter the oceans each year. That is about the same as 1345 blue whales.
- Plastic takes a long time to break down. A plastic bottle can last for 450 years in the marine environment, slowly
  fragmenting into smaller and smaller pieces which eventually end up microscopic but never really go away. This
  means that every piece of plastic that has ever been produced is still with us...Yuck!

Key Vocabulary	
asexual reproduction	One parent is needed to create an offspring, which is an exact copy of the parent.
fertilise	The action of fusing the male and female sex cells in order to develop an egg.
gestation	The length of a pregnancy.
life cycle	The journey of changes that take place throughout the life of a living thing including birth, growing up and reproduction.
metamorphosis	An abrupt and obvious change in the structure of an animal's body and their behaviour.
pollination	The transfer of pollen to a stigma to allow fertilisation.
reproduction	The process of new living things being made.
sexual reproduction	Two parents are needed to make offspring which are similar but

Humans develop inside their mothers and are dependent on their parents for many years until they are old enough to look after themselves.



Amphibians such as frogs are laid in eggs then, once hatched, go through many changes until they become an adult.

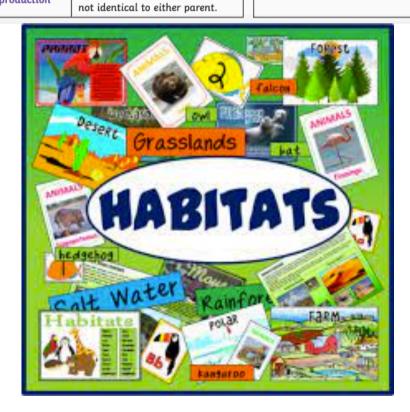


Some animals, such as butterflies, go through metamorphosis to become an adult.

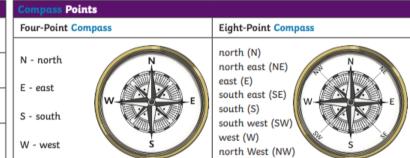


Birds are hatched from eggs and are looked after by their parents until they are able to live independently.





Key Vocabulary	
atlas	A collection of maps often of each country in the world.
compass	A tool used for showing direction.
digital map	A map that uses technology such as a satnav.
easting	The numbers used in a grid reference that run west to east.
grid references	The numbered squares on a map used to locate a place.
National Grid	A system used to split Great Britain into 100km squares.
northing	The numbers used in a grid reference that run south to north.
Ordnance Survey maps	Detailed maps of Great Britain where each square represents 1km squared (1km²).
symbols	Small pictures, letters or lines that represent a feature.



#### Symbols

- · Maps use symbols instead of words to label real-life features.
- · A key on the map tells you what the symbol means.



Nature Reserve



Cycle Trail



Footpath



Motorway



Train Station



Place of Worship