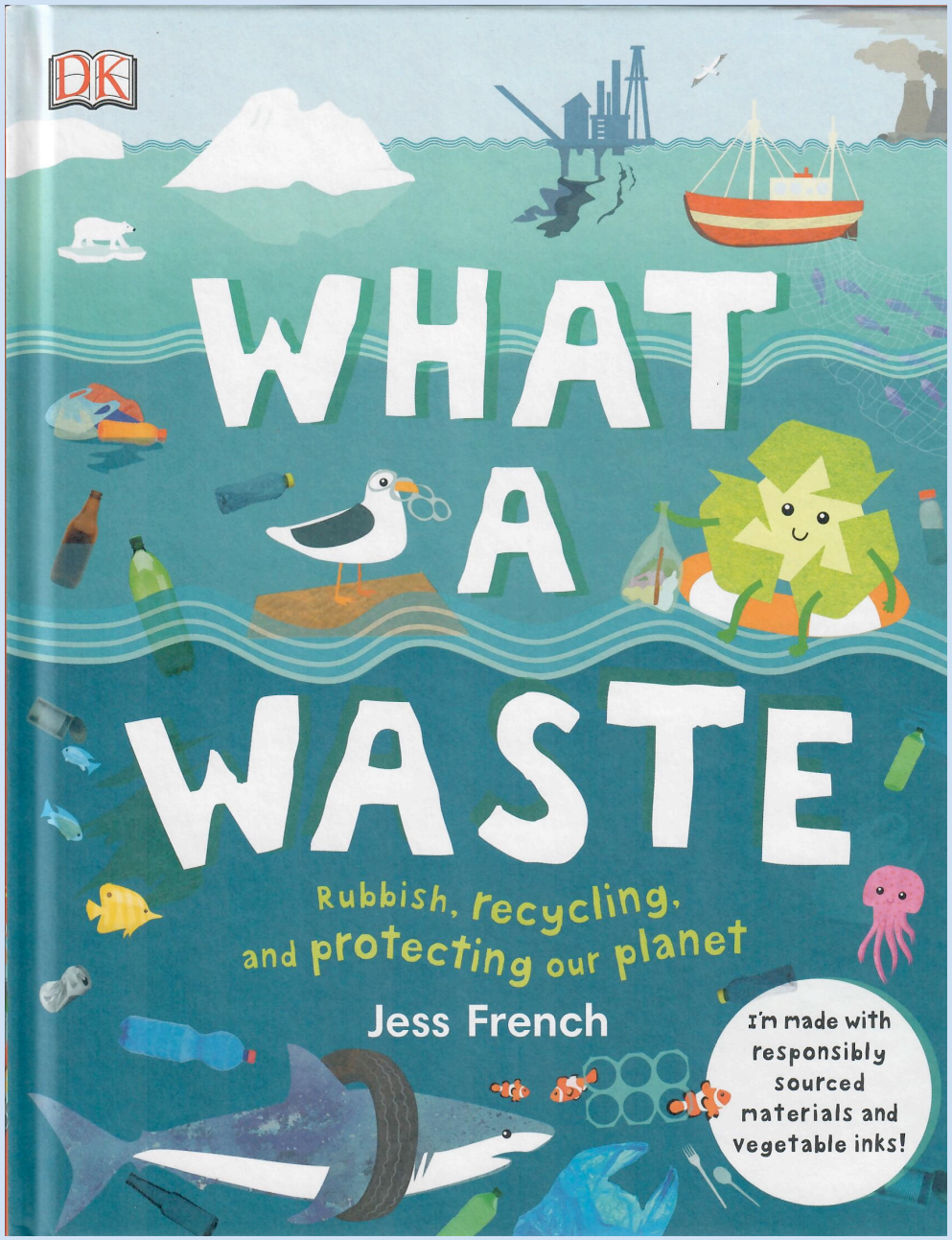

DK
WHAT A WASTE
Rubbish, recycling, and protecting our planet
Jess French
I'm made with responsibly sourced materials and vegetable inks!

Save our seas!

Imagine an island of rubbish in the middle of the ocean. When plastic items get washed into the sea, they clump together and form floating rubbish dumps. Plastic breaks down so slowly in water that it may never entirely disappear.

Asia

Pacific Ocean

Australia

Hard hats have been found in the oceans dating back as far as **1989**.

Island of rubbish

Rubbish in the oceans is carried by moving water until it forms gigantic floating rubbish patches. The biggest of these patches is the Great Pacific Garbage Patch (GPGP), which is in the north Pacific Ocean. It is about three times the size of France and contains around 1.8 trillion pieces of rubbish.

Sea turtles caught in the Great Pacific Garbage Patch can end up with **74%** of their diets made up of ocean plastic.

The plastic in the GPGP weighs around the same as 500 jumbo jets!

North America

Ocean gyres

Ocean water moves in patterns called currents. Gyres are currents that move around in a circle. They collect pieces of rubbish into huge swirling patches of waste. There are five main rubbish patches in our oceans.

Microplastics have been found dating from the **1950s**.

Almost half of the rubbish in the Great Pacific Garbage Patch comes from discarded fishing nets.

Microplastics

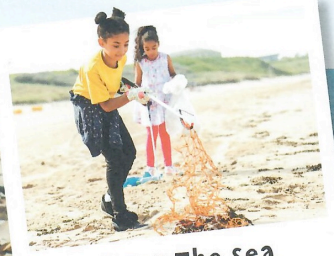
Plastic in the sea never fully disappears but only breaks down into smaller pieces. Pieces of plastic less than 5 mm (0.2 in) are called microplastics. Fish and birds mistake these pieces for food and eat them.

Cleanup projects

Many organizations are helping to clean up ocean rubbish, such as the ones below. Ask an adult before becoming a litter-picking hero too!

Cleaning up our oceans

From straws to deflated footballs, around a third of the plastic made each year ends up in oceans and on beaches. So what can we do to help? Scientists, governments, and ordinary people are trying to tackle this problem.



Take 3 For The Sea

Become part of this project by taking just three pieces of rubbish away whenever you leave a beach or waterway. Make sure recyclable materials are recycled!

Coastal Cleanup Day

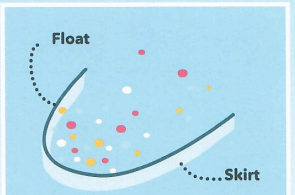
Join volunteers across more than 100 countries for a beach cleanup on International Coastal Cleanup Day. This is in mid-September every year.

The world's largest cleanup

The largest beach cleanup in history took place on Versova beach, Mumbai, India. Over a three-year period, a team of volunteers managed to remove nearly 10 million kg (22 million lb) of rubbish from the beach.

The ocean-cleaning machine

The Ocean Cleanup organization's plastic-gathering machine is the first of its kind. It has been designed to remove 50 per cent of the waste in the Great Pacific Garbage Patch within five years. It will gather the plastic waste together, so that it can be removed by nets and brought back to land to be recycled.



A U-shaped float sits on the ocean's surface. A large "skirt" is attached to the float, beneath the surface of the water. The plastic-gathering machine slowly moves forward to gather plastic.

#2minutebeachclean

The next time you're on a beach, become part of this project by taking two minutes to collect as much rubbish as you can.

Organize your own!

Cleanups show just how much waste we are making. Get your friends and family together for your very own project and help spread the word about waste!

Help stop ocean rubbish

Around 80 per cent of ocean plastic is from land. There are things you can do to help stop litter getting into oceans.

Litter can be blown into a river that then carries it to an ocean. We can help stop this by securing rubbish in bin bags and not littering.

Wet wipes that are flushed down the toilet can end up in the ocean. Wipes that break down in nature can be used instead.

Waste in landfills can blow into rivers. It's helpful to use less plastic and recycle what you can!

Water Waste

Imagine if we ran out of clean water to use. We need to drink it to survive. Water isn't just for drinking, though. It is used to make products and for lots of other things. Water is cleaned for reuse, but this process needs electricity. Saving water helps to make sure we all have enough!

Up to 12 litres (2.6 gallons) of water pour out of a running tap a minute. Turn taps off when you're not using them during teeth brushing and face washing.

Up to 6 litres (1.3 gallons) of water is used with one flush. In toilets with big and small flush buttons, the small button uses less water.

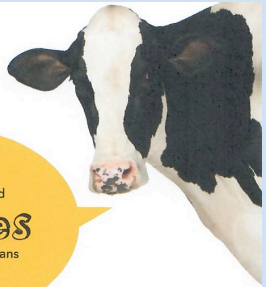
Water is one of our most precious resources. The amount of water on the Earth does not change and people do not have enough of it in many parts of the world.

Sewage

Toilet and sink waste is usually cleaned at a special centre. Uncleaned sewage that gets into rivers can carry nasty poisons and diseases. These affect animals and plants. Sewage can also change water so that too much algae grows on the surface. You can write to a politician if you think there's a polluted river nearby.

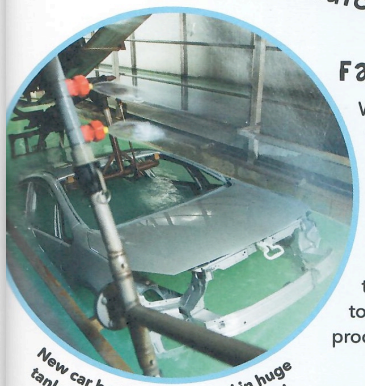
Too much algae stops light getting to plants beneath.

We use around 80 per cent of our water to grow crops. If food is wasted, even more water is needed to produce extra crops.



A cow raised for meat drinks around **15 times** the amount that humans do in a day!

A bath uses up to 80 litres (17.6 gallons) of water. Quick showers use much less.



New car bodies are cleaned in huge tanks of water before being painted.

Factory use

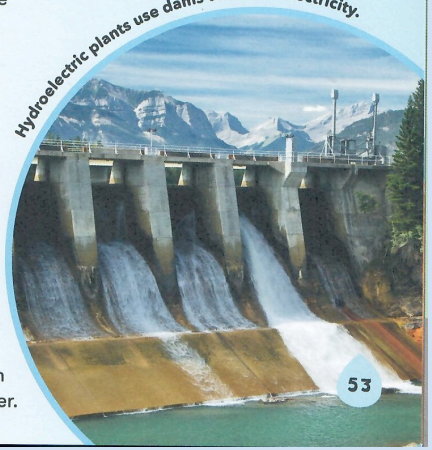
Water is required in factories to dilute chemicals, wash products, and to cool down machinery. It is also used inside lots of different products, including chemicals, food, and paper. It's important that there's enough water to keep making the products we need.

In the USA, up to **60%** of the local water supply is used to water lawns. Water butts can be used to collect rain for watering the garden, instead!

1 in 9 people lacks access to safe water. Charities use donations to build wells that provide people with safe water.

Energy

Moving water creates lots of energy that can be turned into electricity. Waves, tides, and water flowing through dams can all be used to make electricity. Norway makes 90 per cent of its electricity from moving water.



Hydroelectric plants use dams to create electricity.

Where does our poo go?

Everyone poos! It's a natural part of life. In the wild, poo is recycled by tiny animals called invertebrates, and helps new plants to grow. However, we need a way to get rid of the poo from our homes, towns, and cities so it doesn't start piling up!

Flushing the toilet

When you flush the toilet, your wee and poo gets washed into a big pipe that is full of sewage (water, wee, and poo).

Taking sewage away

Bad bacteria

Fatberg

Fatbergs are solid lumps of fat found in sewers. They are made of waste that will not break down, such as cooking fat and wet wipes.

Cotton buds

Nappies

1 in 3 people on the planet don't have a clean and private toilet they can use.

Separating the waste

The water goes to a sewage plant to be treated until it is clean again. First, it is run through a giant sieve, which takes out the big bits of waste that shouldn't be there, such as nappies and cotton buds.

Sewage treatment plant

Items that shouldn't have been flushed, such as nappies, are removed – but often things like bricks and bottles are found in sewage!

Water-treatment tanks

Good bacteria

Removing the poo

Next, the wastewater is stored in a big tank, where the poo settles to the bottom and is removed. Air can be bubbled through the water to help good bacteria grow, which kills the bad bacteria.

Sludge

Cleaning the water

In the next tank, the water is sieved through a bed of sand, and all the good bacteria settles to the bottom. The material that settles to the bottom of the tank is called sludge.

Sludge

The clean water is then returned to rivers and streams, or directly to the sea.

Sludge treatment

Most of the sludge left over from water treatment is used in farming as fertilizer. However, it can also be burned to make heat, electricity, or gas.

Animal poo!

Pets poo too! As pet owners, we are in charge of getting rid of their poo responsibly so they don't spread disease and make our homes stinky.

Doggie poo

Dog poo can be dangerous to people and other animals. Collect it using biodegradable poo bags and throw it in the special dog poo bin.

Cat poo

Cats poo in a litter tray. Litter made from clay or silica can be very bad for the environment, so why not try one made from recycled newspaper instead?

Poo in the wild

Many insects need poo to survive! Some insects, such as dung beetles, eat it. Dung beetles even lay their eggs in a burrow full of poo!

In some countries, such as the USA, chicken poo is collected and sold as a cheap food source for beef cows.

Sea Turtles Planning Sheet

PAT Non-Chronological Writing
Purpose - To write about plants.
Audience -Mrs Gabriel
Type - Report
Class Plan

+

IPEELL
Introduction
Points
Elaboration
Ending
Language
Links

I All About Plants.
flowers trees bushes
wild plants bright colours

P Parts of a Plant
E
roots
stem
seed
leaf
cones
flowers

P Growing plants
E
seed pips
bulb
soil warmth
light
water
seedling

P Plants We Eat
E
flowers
stems
leaves
roots
seeds

E Looking After The World

L and or but
when if that because

L Most.... Many ..... A few.....
All ..... Some ....
Plants have..... They have.....

L

PAT Non-Chronological Writing
Purpose - To write about Sea Turtles
Audience -Ms Charlesworth
Type - Report

+

IPEELL
Introduction
Points
Elaboration
Ending
Language
Links

I

P
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L and or but
when if that because

L Most.... Many ..... A few.....
All ..... Some ....
Sea Turtles have ... They have ...

L

Monday Afternoon Activity – Oceans

WHERE MARINE TURTLES LIVE

Marine turtles are found in most of the world's oceans, apart from cold polar seas. They tend to spend their lives in relatively shallow continental shelf waters.

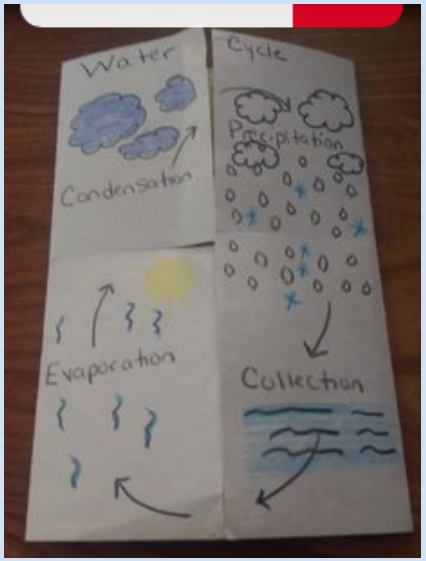
Find out about the world's oceans here by watching the videos.
Complete the quiz and the map activity.

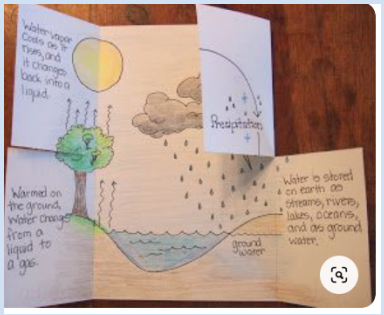
https://www.bbc.co.uk/bitesize/articles/zmmp7yc

Tuesday Afternoon Activity - The Water Cycle

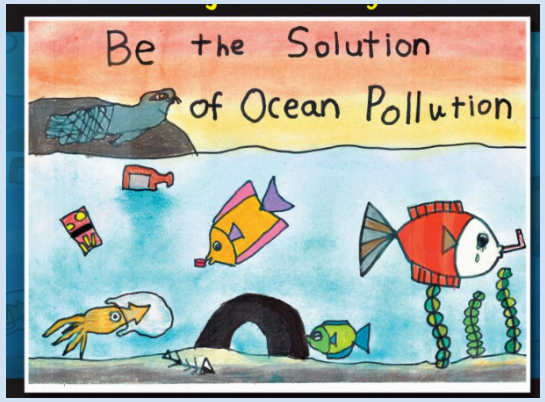
https://www.bbc.co.uk/teach/class-clips-video/geography-ks1ks2-the-water-cycle/zbcmxyc

Watch the video to find out about the water cycle.
Make you own water cycle diagram/book.



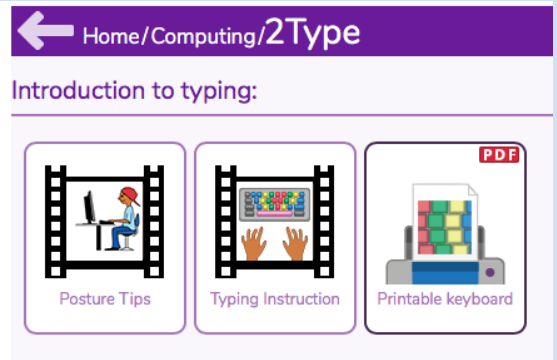


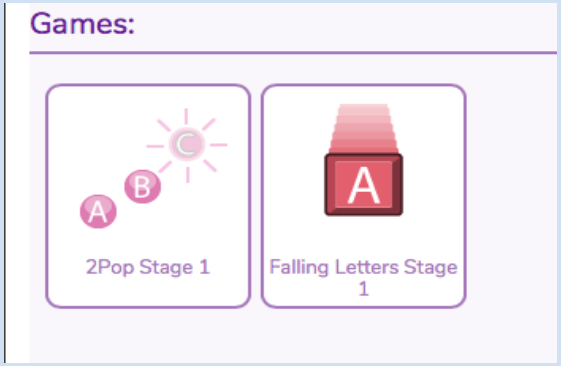
Wednesday Afternoon Activity – Beach Poster

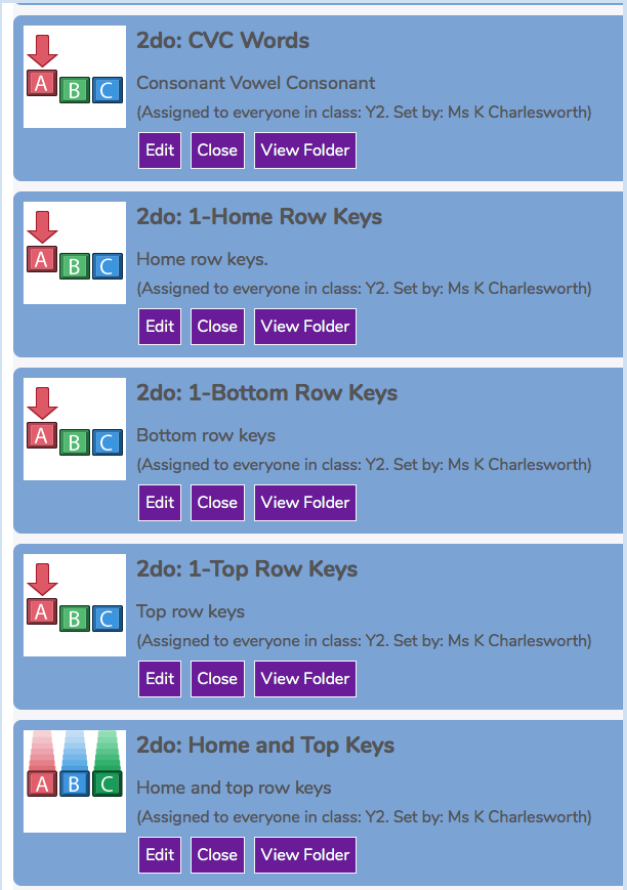


Thursday Afternoon Activity – Keyboard Skills

- Watch the 2 videos above before starting the activities in your 2Dos list.
- I have only put a few tasks in your 2Dos list
- If you complete the set tasks there are lots of further activities in 2Type to extend your typing skills.
- The games below are good to use too.







Friday Afternoon Activity

Well Being – Feelings Mandala

- Choose a mandala to colour in
- List different feelings below or above the mandala.
- Draw a small circle next to each feeling.
- Pick a colour for each feeling and fill in the circles with the colours to use as a guide to remember which colours belong to which feelings.
- Colour the mandala with the feelings colour to show how often you have the feelings.
- If there is a feeling you have a lot of in your life, colour more of the picture with that colour.
- If there is a feeling you don't notice having very much, only colour a little of the picture with that colour."
- This can be helpful to start conversations like, "I notice you only have a little bit of green in your picture and that is your happy colour. What can we do to get more happy in your life?" Or "I notice there is a lot of red in your picture and that is your angry colour. Thank you for being so honest with your feelings in this activity! I wonder what are some of the things that cause that much anger in your life… What do you think?"