

LEVEL 2 – INVESTIGATE



What to expect from Level 2 – Investigate

During this level, children will learn about how plastic gets into the ocean, and the impact that plastic pollution has on us, our communities and our natural environment.

They will also learn about the 6R's to help you think of ways to cut down your problem plastics. They will do some investigating to identify the problem plastics in your school so you can pick the top two to tackle, then create an action plan to decide how you'll achieve it! You'll share what you found out and what you want to do about it.

Lesson Outline

Lesson 1 – How does plastic end up in our oceans?

In this lesson, children will learn all about how our plastic waste can travel and end up in the ocean. They will also explore the effect that this pollution has on our wildlife.

Lesson 2 – The 5 Gyres (Garbage Patches)

In this lesson, children will learn all about the 5 Gyres, focusing on the largest of them all, The Great Pacific Garbage Patch. They will learn all about why these garbage patches form and what is being done to stop this plastic pollution.

Lesson 3 – The 6 R's

In this lesson, children will learn about the 6 R's (Reduce, Refuse, Recycle, Rethink, Reuse, Repair) and how they can act on these in their own lives as well as in school.

Lesson 4 – Action Planning

In this session, children will investigate the problematic plastic in their school and will write an action plan to reduce at least two of these plastics.

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Lesson 1 – How does plastic end up in our oceans?

Lesson input

Introduce the focus of the lesson 'How does plastic end up in our oceans?' (using the PowerPoint if you would like to) and discuss as a class.

As you go through the lesson, discuss the affect that plastic pollution has on wildlife (use the Impact on Wildlife factsheet for more info).

Impact on Wildlife:

- Entanglement
- Animals eating plastic
- Plastic enters the food chain
- Pollution causes threats to marine ecosystems

How does plastic travel? Share the 4 main ways that our plastic waste can end up in our oceans (wind, rain, people littering & waste water systems).

Share images with the children showing the damage that plastic is having on our waterways. Discuss what they could do to help and then look at the images of the clean oceans and waterways.

Activity

Create an upcycled plastic wave to show that you are part of the Plastic Clever Schools Community. Take a look at the Let's Make Waves How to sheet to find out more.



Additional Activity

Children are to create before and after pictures of our oceans. One picture showing the current plastic pollution situation and one picture of what it could be like with their help.

Resources

- [Impact on Wildlife factsheet.](#)
- Let's Make Waves (How to sheet)

Book recommendations

- Clean Up by Nathan Bryon

Plastic Clever Schools Actions:

- Photo – Complete your [Plastic Clever School Audit](#) and upload a photo of your results to your [profile](#).

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Lesson 2 – The 5 Gyres (Garbage Patches)

Lesson input

What happens to the rubbish that ends up in our oceans? Allow the children to discuss and share ideas.

Show the children a range of images of garbage patches in our oceans. Can you identify any products/objects?

Did you know that plastic is estimated to take between 450-1000 years to biodegrade? So what effect can this pollution have?

Share the information with the children all about the 5 Gyres (Garbage Patches), what they are and how they are created (information on PowerPoint and factsheet)

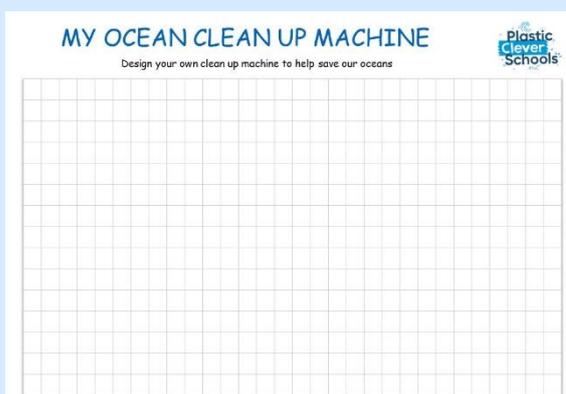
Watch the video all about The Great Pacific Garbage Patch (on PowerPoint)

<https://youtu.be/vrPBYS5zzF8>

Discuss the Ocean Cleanup Project and watch the video of CEO Boyan Slot explaining what the project is and why he started it (on PowerPoint).

Activity

Children are to use the design sheet to design their own Ocean Clean Up Machine. Encourage the children to think about how the plastic gathered from the ocean will be sorted and possibly recycled.



Resources

- Ocean Clean Up Machine Design Sheet
- [The 5 Gyres factsheet](#)

Book recommendations

- A Whales Tale Online Story <https://www.youtube.com/watch?v=xFPoIU5iiYQ>
- Planet Full of Plastic – Neal Layton

Plastic Clever Schools Actions:

- Photo – Upload photos of your designs to your [profile](#).

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Lesson 3 – The 6 R's

Lesson input

Introduce the 6 R's to the children, using the PowerPoint.

- Reduce
- Refuse
- Recycle
- Rethink
- Reuse
- Repair

As you go through each one, encourage the children to think about how they could use each R in their own lives.

As a class, think about the questions below and discuss. Think, Pair, Share.

How could we use the 6 R's in school?

What do we already do?

What could we do differently?

Activity

Children are to create posters to promote the 6 R's which they can display around school or on their Plastic Clever School display board.



Resources

- [The 6 R's factsheet](#)

Book recommendations

- Stuff – Maddie Moate
- What A Waste: Rubbish, Recycling, and Protecting our Planet – Jess French

Plastic Clever Schools Actions:

- Photo – Upload photos of your posters to your [profile](#).

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Lesson 4 – Action Planning

Lesson input

Before the session, ask a selection of classes, parents and teachers to complete the [Plastic Survey](#).



The image shows a 'Survey' form from Plastic Clever Schools. It contains several multiple-choice questions about plastic pollution, such as 'Are you a...?' with options like 'teacher', 'parent', 'student', and 'community member'. It also includes a Likert scale for 'How much do you know about plastic pollution?' and 'How well do you think your school is tackling the issue?'. There are also questions about what concerns people most and who is responsible for reducing plastic waste. A final question asks for one thing the school could do to become a Plastic Clever School, with a large text box for the answer.

Explain to the children that now you have learnt all about plastic pollution and how it is damaging our environment, it is time to start planning how you are going to help the environment by tackling plastic in your own school.

Work through the PowerPoint thinking about each of the focus questions (this could be done on large sheets of paper in groups or as a class discussion).

Activity

As a class, create an action plan, using the discussion from the PowerPoint and the Plastic Clever School Action Plan Sheet.



The image shows a 'Plastic Clever School Action Plan' sheet. It is divided into four quadrants, each with a question: 'What problem/plastic are you going to tackle?', 'What can you do to reduce it?', 'What help will you need?', and 'How will you know you've been successful?'. Each quadrant has a large text box for the answer.

Don't forget to share your journey so far and your Action Plan with KAP as well as teachers and pupils. This will help them to join your mission.

Resources

- Plastic Survey
- Plastic Clever School Action Plan Sheet

Book recommendations

Plastic Clever Schools Actions:

- Photo – Complete your [Plastic Clever School Action Plan](#), outing at least two types of problem plastics from your school and upload photos to your [profile](#).