



BY



Common
Seas

x

**KIDS
against
PLASTIC**



PLASTIC CLEVER SCHOOLS

SECONDARY STUDENTS WORKBOOK



HEY!

WELCOME TO PLASTIC CLEVER SCHOOLS

We're so pleased you're here because we need your help to make every school Plastic Clever. Plastic pollution is a big problem- you'll find out more about that later - but we know a way you, your school, and all your friends and family can help.

Why is it important to be plastic clever?

Plastic pollution is a global issue - chances are, it's one you've seen yourself already.

Every year, humans produce a huge 220 million tons of plastic waste! Of this plastic, 40% goes to pollute our environment and just 15% is recycled.

Plus, it's getting everywhere. Plastic has now been found at the deepest and highest places on Earth, in tap water, and even in our blood.

It's not too late to fix this problem, but we need everyone to play their part- including you. This workbook will help you lead your school to become Plastic Clever.

Amy & Ella's top tip

Don't be afraid to speak up about what you care about! If you think there is a problem in the world that you're passionate about tackling, then don't underestimate the power of your voice! It's better to make the change you want to see happen rather than wait for someone else to!

LEARN
MORE

Look for this sticker to find out more about the plastic problem and how you can help.

Plastic Clever Schools

CONGRATULATIONS

YOU'RE A PLASTIC CLEVER SCHOOL!

LEVEL ONE INSPIRE

Learn about plastic pollution and spread the word with a Plastic Clever Schools assembly

Organise a litter pick

Share why you want to become plastic clever

LEVEL TWO INVESTIGATE

Audit plastic waste in your school with our easy tool

Identify your problem plastics and create an action plan to tackle them (start with 2)

LEVEL THREE ACT

Turn plans into action with a school wide campaign

Capture photos and videos of your journey and the changes you've made to reduce plastic waste

Make a video, poster or display to showcase your success

BEFORE YOU START

Inspire a teacher or other adult in your school to help you register your school online.

Rally a team to help you become a Plastic Clever School.



Want to earn a plastic Clever Schools Award?

Each stage has an evidence checklist- ask a teacher to help you upload this evidence on plasticcleverschools.co.uk

LEVEL ONE

INSPIRE

If you want to help solve the plastic problem, you need to know more about it. In this first stage of your journey, you'll be learning why plastic is a problem in your local and global environment. Get the whole school involved by sharing what you're learning and including them in inspiring events.



EVIDENCE CHECKLIST

- ☐ Host an assembly
- ☐ Do a litter pick
- ☐ Make a video, poster or display to tell others what you want to achieve and why.

1 ASSEMBLY TIME

Kick things off with an assembly.

This is a great way to let the whole school know about your plans to become a Plastic Clever School. It will also help you introduce everyone to the beauty of our incredible oceans, so they feel inspired to help protect it from plastic pollution.

Need help?

We've made a presentation that you (or a teacher) can use to deliver an inspiring assembly. Make it fun by getting some friends involved too!

[Click here for the assembly](#)



2 DO A LITTER PICK

A litter pick is a brilliant way to find out more about problem plastics in your local area, like the litter hotspots, types of plastic and even where they come from.

It's also a fun way to get lots of people involved in your challenge to become Plastic Clever.

[Click here for litter pick sheet](#)



3 MAKE A POSTER, VIDEO OR DISPLAY

Share why you want to be a Plastic Clever School.

You can make a video, a poster or a display. Share it with your school and with us- this is your final piece of evidence to complete the Inspire stage. Hurray!

Here are some questions to help you:

- What sparked the idea to sign up?
- Is plastic pollution a real problem in your local community?
- How would your school, local environment and planet improve if everyone helped become Plastic Clever?

[If you're making a display, take a look at page 24 for our guide to making a Plastic Clever School Wall.](#)

Hayden's top tip

Get lots of people involved by planning a regular litter pick. This can really improve the atmosphere of the school by bringing people together to do something good for the planet.

LEARN
MORE

Different types of plastic

Remember that recycling rules vary a lot depending on where you live. If you're not sure what to do with your waste plastic item, check your local council's website.



Try this!

Want to know more about the science behind different types of plastic? Watch my video about polymerisation and how to test the process by making your own slime!

George

Click here to watch my video

LEARN
MORE

The life cycle of a plastic bottle

Click here to learn more about how plastic is made



LEARN
MORE

Everyone's talking about...

Climate change

What is Climate Change?

Climate change describes a change in average weather conditions over a long period of time. Many of these changes are the result of an increase in the average global temperature, known as global warming. Here's a very quick explanation of what this all means...

Global warming is a natural process where greenhouse gases (carbon dioxide, methane, nitrous oxide, and water vapour) capture some of the sun's heat and warm the earth. This process is what makes our planet so perfect for life to survive.

However, human behaviour is making it warm up too quickly. Think of the greenhouse gases in our atmosphere as a nice warm blanket keeping the earth just the right temperature. Now imagine what will happen if we keep adding more blankets... Well, that's what's happening to our planet. Human activities – like burning fossil fuels to power factories, cars and buses – are adding greenhouse gases to the atmosphere, preventing heat from escaping and warming the earth. This is already leading to global problems such as an increase in extreme weather (like storms and droughts), melting ice caps, rising sea levels and animal extinctions.

Millions of young people have taken part in school climate strikes to protest the lack of action on the climate crisis by world leaders. So, what is Climate Change and what does it have to do with plastic?

Plastics and the climate crisis

The lifecycle of a plastic bottle will leave a lasting impact on the environment, including our climate, because when we throw away a single-use drinks bottle, that's not all we're wasting.

Challenge

Plastic isn't only a problem at the start of its life. Take another look at the plastic lifecycle on p. 6 of the workbook. How else is plastic contributing to climate change? Could anything be done to reduce this impact?

one waterbottle =



X3

Three litres of water are used to make a one litre water bottle

100g

100g of carbon dioxide, a greenhouse gas, is released into the atmosphere

250ml

250g of oil is mined from beneath the ground to produce one bottle.

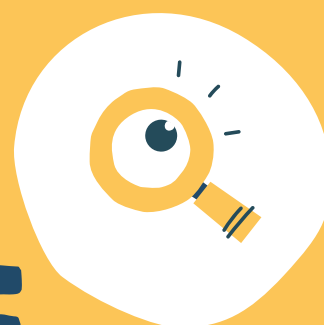
Oil is a fossil fuel & can not be replaced once it is used

Want to know more?
Check out the KAP website

LEVEL TWO

INVESTIGATE

Congratulations! You've inspired your school to become Plastic Clever. Welcome to level two - Investigate!
As a Plastic Clever School, you need to take steps to cut down on single use plastic waste and help keep our ocean and natural world healthy. It's time to start looking at the problem plastics in your school.



EVIDENCE CHECKLIST

- Complete the Plastic Clever Schools audit
- Create an action plan to tackle two plastic items



Inaaya's top tip

The more people on your team the easier it'll be to make a difference. Get creative to encourage your whole school to reduce single use plastic and protect our amazing ocean.

1 PLASTIC CLEVER SCHOOLS AUDIT

Download our audit tool and answer the questions. This will help you understand more about plastic waste in your school, so you can know which plastic items you need to tackle.

Gathering data is a really important skill that scientists and explorers use to make new discoveries and solve problems.

[Click here to start your audit](#)



2 ACTION PLAN

Once you've discovered the problem plastics in your school, it's time to plan how you can tackle them. An action plan is a simple way to get really clear on your next steps.

Your plan must tackle at least **TWO** problem plastics.

[Here are some useful questions and examples to help you get started](#)

HAVE YOU HEARD OF THE 6 RS?

Recycling is an important part of dealing with plastic waste, but it's not the best option. Try looking at how you can use the first 3 Rs - rethink, refuse and reduce - as a starting point for your action plan.

[Click here to learn more about the 6 Rs](#)



rethink



refuse



reduce



reuse



recycle



repair

LEARN
MORE

How does plastic end up in the ocean?

Where does all the plastic come from? And how does it end up in the sea? Did you know that approximately 80% of plastic flows from land-based sources? The other 20% is plastic littered at sea, from fishing and shipping.

Even if you live hundreds of miles from the coast, the plastic you throw away could make its way into the sea.

How does plastic pollution impact marine life?

Plastic pollution is bad news for the natural world. Did you know that plastic in the ocean impacts all species, big and small – from marine mammals like whales and dolphins to the smallest fish and plankton.

[Click here to learn more](#)

How does plastic travel



Wind blows plastic and plastic litter into the environment.



Rain sweeps plastic into the waste and stormwater system or directly into rivers and streams.



People might **dump plastic waste** near to or directly into rivers and streams.



Waste and stormwater systems can **overflow** during storms and high tides.

Plastic pollution

What do you picture when you think about plastic pollution? Close your eyes and take a moment to think about it.

Whatever you imagined, we're sure it wasn't pretty. Plastic pollution is a big deal and causes a lot of problems in our local environment and across the planet – especially in our ocean.

Now close your eyes and imagine what this environment could look like if it was free from plastic waste – this is the difference you can make!

[Click here to learn some surprising facts about plastic...](#)

LEARN
MORE

The 5 gyres

When ocean water moves together it forms a current. Wind patterns and the forces from the Earth's rotation can make these currents move in circles (like slow moving whirlpools) known as 'gyres'.

The most famous gyre is the North Pacific Gyre. It's been nicknamed 'The Great Pacific Garbage Patch' because it has the highest concentration of plastic waste.

[Click here to learn more](#)



Skye's top tip

Use what you found out on your litter pick as well as your audit results to plan your action and keep plastic waste out of your school and your local environment. Taking action is really easy when you're protecting something you care about





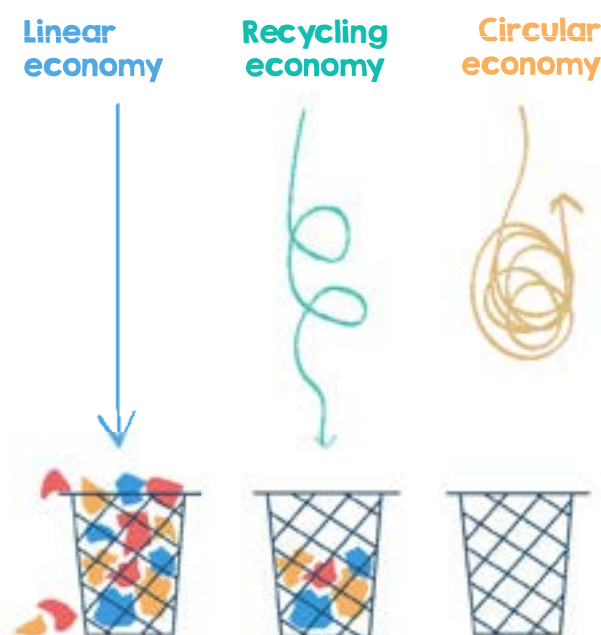
Circular economy

A new economy

Humans produce A LOT of waste. This is because we often design things to be used once and then thrown away. This is known as the linear economy.

In a recycling economy, products at the end of their life (when we're finished using them) are collected and their materials recycled to make new things.

This prevents them being wasted, saving raw materials and energy. So is this the answer to a more sustainable approach? Unfortunately not. Especially when we're talking about plastic.



A few plastic recycling facts:

- Not all plastics can be recycled. Although the plastic polymers can usually (technically) be recycled, the way that plastic products are designed or used often hinders the recyclability.
- Recycling plastic is actually more like 'downcycling' as the quality of the material is reduced in the process.
- Although we preserve the energy embodied in the materials, the process to collect and recover plastics in recycling is also energy intensive.
- Today, our world already creates 220 million tons of plastic waste every year – only 15% is recycled.
- Recycling instructions are different in each area, which is why mistakes are made in cleaning and sorting resulting in contamination that makes plastics difficult to recycle.

Feeling confused about plastics recycling in your own area? Check out www.recyclenow.com to find your local recycling information.

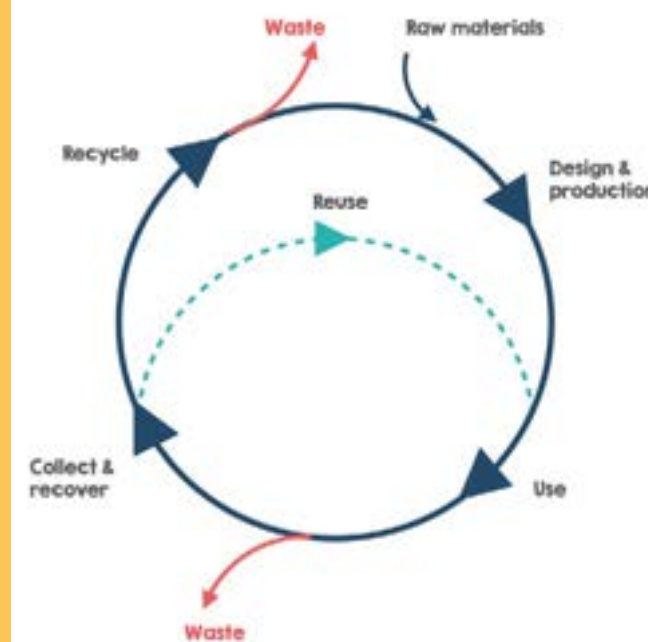
What about a circular economy?

In a circular economy, much less is wasted because everything has value. Products are designed and made to last much longer and to be easily re-used, repaired and recycled.

Did you know?

Reusable products also require materials, energy and water consumption to produce. That's why reuse is key- the more you reuse them, the greater the impact you can have to reduce waste and your carbon footprint.

Sadly not all that is collected for recycling is recycled.



In a circular economy we are careful to keep waste to a minimum.

1. Products need to be designed and produced in a way that enables us to use less energy, less materials, and create less waste. The goal of the circular economy is to 'reduce'.

2. Materials and products need to be used in the cycle as long as possible. This means products need to last longer and be reusable, repairable or easily recycled. Do you notice how 'reuse' creates a smaller cycle? This is the best way to reduce our energy consumption and waste.

Can you think of any examples of the circular economy at school?

E.g. Plates in the canteen that are washed and reused each day. If yes, how much plastic waste is it preventing each day? Could this approach be used elsewhere in school to reduce plastic waste further?

LEVEL THREE

ACT

You're onto the final stage of your Plastic Clever journey - fantastic! This is the most exciting part of the process- leading campaigns to encourage your whole school to wave goodbye to single-use plastics.



EVIDENCE CHECKLIST

- ☐ Run a campaign in school to reduce at least two problem plastics
- ☐ Share photo evidence of the plastics reduced
- ☐ Create a celebration presentation

Spread the word!

Why not ask your teacher to help you share your celebration on the schools website, or with a local newspaper to really capture the attention of your whole community and celebrate your amazing work!

1 RUN YOUR CAMPAIGN

It's time to run your campaign in school to reduce the problem plastics identified in your audit.

Take a look at our guide to building effective campaigns to help turn your action plans into action!



[Download the guide here](#)

Keep a record of your awesome campaign activities by taking pictures. These pictures are essential evidence for this part of the award.

You can find more ideas about activities for your campaigns on page 26

2 SHARE PHOTO EVIDENCE

Remember to take pictures! We want to see the great plastic changes you've made. For example, if you've swapped single use cups for reusable bottles in the classroom, take a snap!



Jaz's top tip

It can get difficult when trying to be plastic clever but persevere and remember all the good you're doing! Don't be scared to help educate people around you who want to learn. Keep going!

3 SHARE YOUR SUCCESS WITH A CELEBRATION

Celebrate all your hard work to reduce single use plastic. Get creative- make a video, photo montage, PPT presentation or poster all about your schools success.

Things to include:

- Which plastic items have you reduced?
- How do you know your campaigns have been a success?
- What are you most proud of?
- What are you going to do next?

LEARN
MORE

How to make a difference

When you feel passionately about something, changing your own individual behaviour is a great place to start. But what if you want to create a change bigger than your own action?

You need to use something called **advocacy**. Advocacy means trying to inform and influence the people around you to feel passionately too.

Here are some ideas to help you become a great advocate -

Learn

Research as much as you can so that you understand the issue and can speak confidently about it. Look online, speak to teachers, parents and people in your community.

Connect

Remember that there are lots of amazing people around the world working on this issue. Find ways to connect with other activists, organisations and community groups.

Find your superpower

Think about the skills that you have that you can bring to this cause. Everyone has something they can use to help.

Start small

Look for things you can do at home, in your school and in your local community first.

Fight for not against

Rather than focusing on all the bad things that plastic pollution does, why not focus on why our ocean is so important and how amazing all the marine creatures are.

Speak up

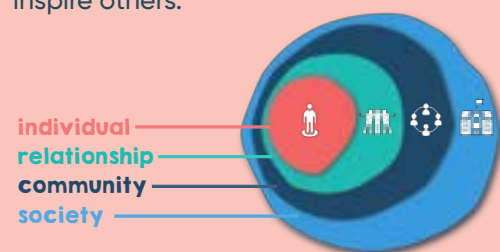
Don't be afraid to use your voice and find ways to share your message.

Practice what you preach

Try and be a Plastic Clever role model so others can learn from you.

Ripples of change

Your actions can become ripples that inspire others.



Who do you want to reach? What changes do you want to see?

LEARN
MORE

Inspiration & innovation

Imagine if we all looked at the issue of plastic pollution as an exciting opportunity to make change. There are some incredible projects happening around the world that can help inspire us all. Here are some of our favourites...



Everyday Plastic

Everyday Plastic provides families, schools and organisations with a personal connection to the plastic problem. They run an amazing programme called the Everyday Plastic Survey that helps people calculate their own plastic footprint by collecting all their plastic for one week.



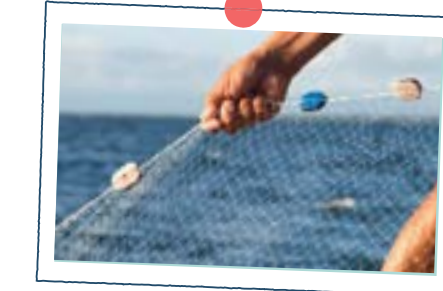
City to Sea Refill

City to Sea are an environmental organisation who are on a mission to stop plastic pollution at the source. They want to make it really easy to reduce how much single use plastic we use and so they've created an app to help people find their nearest refill stations. All you need to do is download the app and enter your location and you'll see all the places you can refill your water bottle, grab a hot drink in a reusable cup or even refill a bottle of shampoo!



Washed Ashore

Washed Ashore use marine plastic to create incredible pieces of art. They work with hundreds of volunteers across the USA to make big sculptures that help people understand the impact of plastic pollution. Make sure you check out their work - could you create a sculpture at your school?



Net-works

Net-works help turn old fishing nets into new materials. They help communities in South East Asia collect old nets from fishermen and clean them up from their coastline. Once they have been collected and cleaned, they can trade them in for money which helps support their families. Getting rid of the old nets also means that the ocean is cleaner and the fish populations increase.

CONGRATULATIONS!

Wow! How does it feel to be waving goodbye to single use plastics?

If you've ticked off everything on your checklists, then you are really really close to becoming an official Plastic Clever School.



INSPIRE ✓



INVESTIGATE ✓



ACT ✓

YOU'RE A PLASTIC CLEVER SCHOOL!

Plastic Clever Schools



Welcome to the Plastic Clever Schools community! We're so happy to have you on board.

Amy & Ella at Kids Against Plastic

Kids Against Plastic was founded by teenagers Amy and Ella Meek. When they found out about the harm caused by plastic pollution they needed to do something about it. They created KAP - a charity by kids, for kids - to inspire and motivate others to take action too.



Click here to submit your evidence

To stay plastic clever, you'll need to keep on learning, doing and sharing to help your whole school and your community wave goodbye to single use plastic for good!

The work you have done to get this far is amazing and we are so excited to see where you go next!



Massive congratulations!

Jo & Sarah at Common Seas

Common Seas was founded by Ocean Explorer Jo Royle. We're a team of sea champions on a mission to quickly and significantly reduce the amount of plastic produced and stop it polluting our rivers and seas. We created Common Seas Education to empower the next generation of ocean superheroes to join our crew!



Raven's top tip

It's not enough to just tell people not to litter or not to use plastic. Show them what really happens to our planet. That will get through to them better; this is their home and they need to protect it!

Ask your teachers for more education on this topic. Ocean Plastics Academy is a great place to start.



EXTRA ACTIVITIES

WANT TO GO FURTHER TO HELP YOUR SCHOOL BECOME PLASTIC CLEVER?

Take a look at these ideas to help you keep going and get everyone involved.

DO
MORE

Design your Plastic Clever Schools wall

Becoming a Plastic Clever School is much easier if everyone at your school knows about it.

One way to do that is to create a Plastic Clever School wall. Think of it like a giant display that everyone can see and that can be updated as you progress along your journey.



Your step by step guide to creating your Plastic Clever School wall

1. Ask your teachers if they can help identify a good spot for your display. Make sure its somewhere central in the school and big enough for you to fill with lots of pictures and information.
2. Start designing your wall on a piece of paper, so you can figure out what you'd like to display. You'll want to include the three different levels, a checklist to tick off, a space for photos, drawings or posters, and somewhere to create a map of your school.
3. Remember that you will keep adding to your wall as you work through the three levels, so don't fill it up too soon!
4. Let everyone know what they can create for the wall - drawings, posters, sticky notes with ideas for your school.
5. Make sure you take photos and send them to us so we can see your amazing Plastic Clever School wall and share it on our website.

DO
MORE

Use social media for good

Social media can be a really powerful tool when it comes to taking care of our planet.

We can reach more people and engage in good conversations about causes we care about by posting content on social media channels. Throughout your journey we are going to encourage you to share what you are doing and try to engage even more people.

Here are our top tips -

- **Fact check first** - Be sure to check & reference your sources when sharing anything on social media.
- **Be creative** - Make a video or create a piece of art that can help amplify your message.
- **Raise voices** - Seek out people who are playing active roles in local movements. Make sure you make everyone feel welcome.
- **Follow your schools guidelines** - Make sure you abide by your schools social media policy.
- **Be positive** - Whilst we shouldn't be afraid to shine a light on the plastic problem, upbeat, engaging and supportive messages will get you further than trying to shame people into action
- **Remember to tag** - If you want to draw attention to your post, for example from a specific person or business, tag them in your post to make sure they see it!

Most social media channels are for users aged 13+. If you are under 13, it could be possible to share your messages safely through your schools social media channels instead. Speak to a teacher to find out who can help you with this.

Follow us at -

@kidsagainstoplastic
@commonseas

And use the hashtag -
#plasticcleverschools



DO
MORE

Take action!

Ready to wave goodbye to plastic waste?
Here are a few ideas to get you started.

- Start a newsletter
- Give a presentation to your school leaders
- Get another local school involved!
- Send a tweet! Ask a teacher or an adult at home to help with this.
- Plan an event
- Create a blog
- Create posters to put up in plastic hotspots
- Need money to make some of your ideas possible? Come up with a fun way to fundraise!

Remember: these aren't required evidence pieces to complete your Plastic Clever award – but, they're great way to spread even more awareness of plastic pollution and your efforts to tackle it!

How to write an advocacy letter

Letters are a great way to communicate your opinions with others to encourage positive change. There are several questions that you should ask before writing your letter such as what, who, and why?

What?
What is it that you want to change? Do you want to learn more about plastics in your school curriculum? Or perhaps you wish there was fewer plastic items in the canteen. Focus on one or two key points that you would like to communicate.

Who?
Once you have decided what you want you can then think about who the best person would be to contact.

Contact your school leadership team
When it comes to making change, your school is the very best place to start. You might need to contact your headteacher, parents and the team who run your canteen.

Contact a local business
Local businesses can produce a lot of waste. Generally, they want happy customers, so getting in contact to share your opinion on a product or service they do or don't deliver can be very helpful. Local businesses can also help reduce waste! For example, you could find out if any businesses will let you refill your water bottle when you're out and about.

Why?
After outlining what you want and who you will write to for support you can consider why it is important. In your letter you will have to be persuasive so you will need to consider why it is important to you and why it is important to the person you are writing to.

Some ideas for writing your letter...

...the why you are writing
...line the problem (For example - 'We've done a waste audit and found that 70% of our plastic waste is coming from our canteen.')

...provide a solution

Paragraph 3: Explain how the solution will benefit you, them, and others.

Summary: Thank them for reading your letter and ask that they contact you back.

Here are some persuasive sentence starters to get things going:

I believe... Did you know... Imagine if... As a matter of fact... Everyone knows that... Firstly... In addition... In my opinion... I'm sure you agree... However... Even though... Having considered... In conclusion...

One way to advocate is with a persuasive letter – Click here for an easy guide to get started.

DO

Amy's
top tip

Celebrate what you're doing with your local community! It's a great way to show off your good work, and highlight plastic pollution in a fun way: such as, through an ocean-themed movie night, or a coffee morning for parents and community members.

Build your Plastic Clever Schools map

Creating a map of your school and your local community is a really good way to reflect on your journey to become Plastic Clever, capture some key information about problem plastics and highlight some of the solutions now in place. It's also an excellent way to begin thinking about what you want to do next.

1. Start by drawing a birds eye view of your school. Make sure you include all the outside spaces too, like playgrounds, sports fields, car parks etc. Do it on a big piece of paper so you have lots of room to add information.
2. Add in your recycling bins, water refill stations or drinking water taps and any Plastic Clever projects (e.g. maybe you have litter pickers that people can use stored somewhere).
3. Great – now add your plastic hotspots to the map – the places where you most often see plastic pollution. You might also want to include any popular local shops or places to eat outside of school, as these places can also often become hotspots.
4. Next up you can add some important people to the map. This should be the people who make decisions about your waste management, the person who runs your canteen or lunchroom, plus anyone else who plays an important role in your Plastic Clever School journey (e.g. your Eco Club or school council if you have one).
5. Once you've created the map of your school, see how far you can extend it. Add in local recycling centres, plastic hotspots, water refill stations, parks and green spaces etc. Include ideas about local leaders and organisations who could help you take things further. Keep building – The idea of your Plastic Clever Schools map is for it to grow :)
6. Don't forget to display your map on your Plastic Clever Schools wall!

Plastic Clever Schools



Common
Seas x

**KIDS
against
PLASTIC**

This resource has been assessed by Royal Meteorological Society against their *Quality Control Framework for Climate Education*, developed as part of the National Climate Education Action Plan.

