## Secondary Teachers Toolkit









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# Introduction



# Hello Trom Common seas!

We want to support educators in inspiring and equipping young people to solve the marine plastic challenge, while helping their schools and local environment to become plastic-waste free. To achieve this, we believe in an approach that builds plastics literacy, develops critical skills and provides meaningful, real-world experience. We created Ocean Plastics Academy, a suit of curriculum aligned resources help young people experience the wonders of our ocean, while learning about the complex problem of plastic pollution.

Now, we've teamed up with the brilliant Kids Against Plastic to launch Plastic Clever Schools, an exciting school award to help you and your students wave goodbye to single-use plastics. Plastic Clever Schools turns literacy into action, empowering young people to lead a plastic waste revolution in their classroom and beyond. We'll explain how it all works over the next few pages so, for now, thank you and welcome aboard!



## Since it became popular in the 1950s, plastic has changed our world.

Globally, we create 220 million tons of plastic waste every year, of which just 15% is recycled and 40% pollutes our environment. On top of this, the plastic industry is extremely carbon intensive, contributing to global warming at every stage of its lifecycle.

Without a dramatic change of course by 2040 we are set to use almost a fifth or our global carbon budget to make plastic, much of which will contribute to four times more plastic in our ocean.

Plastic is a pervasive environmental and social issue that affects ocean, human and economic

> Click to find out more about plastic pollution



# Plastic Clever Schools





A Plastic Clever School is one where young people are leading action to reduce single-use plastics, with the support of their teachers, school leaders and wider community.

It doesn't need to be 'plastic-free', but everyone should be working together to reduce as much plastic waste as possible (we recommend starting with two items). Through this process, Plastic Clever Schools turns plastic literacy into action. Student-led, schoolwide campaigns provide real-world experience to make learning about plastics practical and fun, whilst supporting a meaningful process to identify and implement real solutions to one of the biggest environmental problems of our time.

The journey will be different for every school and so we've created a diverse collection of resources that will help along the way. Each level requires evidence to show how students are working towards making your school plastic clever. You can register your school online and submit all your evidence via the Plastic Clever Schools online platform..

Click to register here

Inspire They'll go on a deep dive to learn all about plastic and share that information with their peers, teachers, parents and They'll uncover the school's problem plastics and community.

There are three levels for students to complete -

form a plan to tackle them

Act They'll learn about advocacy and create a positive impact by leading exciting campaigns to wave goodbye to single-use plastic for good.

# Becoming Plastic Clever



# For Students

### Your students should be leading the way on this journey.

Make sure they have access to our interactive student workbook to guide them through the process. It has lots of useful information & links to worksheets to dive deeper on specific subjects, as well as some helpful tips and advice from Amy and Ella, the founders of Kids Against Plastic, and other young people, including the Kids Against Plastic Club members.





This symbol will guide you to specific resources for your students

# for teachers

## Becoming Plastic Clever is a whole school endeavor.

Your students will need your support and encouragement every step of the way. This Toolkit outlines the key elements of the programme as well as identifying the best way for you to support your students and engage staff, parents and your wider community. We've also included the resources needed to embed learning about plastics within the school curriculum. Your role is to ensure your students are enabled to lead change on plastics and to help create a lasting impact as a Plastic Clever School.

We hope you find everything you need to make that possible within these pages!



# cean Plastics Academy



To solve a problem, we first need to understand it. We've created everything you and your team need to bring learning about plastics to the curriculum.

Ocean Plastics Academy teaches young people about plastic - where it comes from, what it does, where it goes, and what they can do about it - to create a generation dedicated to solving the plastic pollution crisis.



All of our learning resources are aligned to the national curriculum, are easy to access and free to use. The full suite of secondary resources can be found on the Ocean Plastics Academy platform.

### **Oceans for Beginners**

Introduce students to the awe and wonder of the ocean. This unit explores the ocean's diversity of life and some of the many ways we depend on it. Students will discover the problem with ocean plastic pollution and critically appraise information from different media sources. They'll go on to investigate possible career opportunities within this field.

This short course is a great introduction to ocean literacy ahead of exploring the ocean plastics units.

### Ocean Plastics: Geography

Created in partnership with the Geographical Association, this unit of work aligns to the Geography Key Stage 3 programme of study. The lessons address the issue of marine plastic pollution, the harm caused by plastics to the environment and communities, how we deal with all the waste, ending with a debate on approaches to reducing ocean plastic pollution.

Fieldwork templates for investigating plastics in the local area are included as well as a wealth of case studies exploring both the human and physical elements of plastic pollution.

### Ocean Plastics: Science

This unit combines biology and chemistry. Students are taken on the journey of plastic, exploring how plastics are manufactured, used, and disposed of. Students will learn the science behind what makes plastics both brilliant for everyday purposes and devastating to our ocean and marine life.

The topic leads students to conduct authentic research, emulating research conducted by The University of Plymouth. Students will test the properties of plastics, investigate compostable alternatives, and analyse case studies to discover how plastics can physically and chemically harm marine life.

### Ocean Plastics: Design and Technology





























# Becoming Plastic Clever



# Young people at the heart of the action

## If you're the instigator behind becoming Plastic Clever, you will need to rally some keen students to lead the way.

Consider working with a school group, such as an eco team, club, or specific class to get things going. If you've been recruited by an eager student to support their school action, help them grow their team.

If your eco team is already working hard on other environmental activities, and clubs have a busy schedule mapped out, consider creating a new Plastic Clever team specifically dedicated to issues relating to single use plastic.

Ideally, the team should be representative of the wider student body, with members included from every year group. These representatives will be able to share messaging,inspire participation, and consult on solutions with their peers.

Eco Schools has excellent guidance for setting up an eco team available on their website here.

## Remember to upload your evidence during each level to achieve your Plastic Clever School award -

As part of the process to share evidence and communicate around school action, students are encouraged to share messages online. For some, this might include social media platforms. Please take a look at the 'making waves' guidance on page 4 of the student workbook for top tips on safe and effective online advocacy.



### Levell

- Raise awareness about your mission to become a Plastic Clever School
- Host a litter pick at your school
- Tell us why you're excited about becoming a Plastic Clever School



- Complete the Plastic Clever Schools audit
- Create your action plan

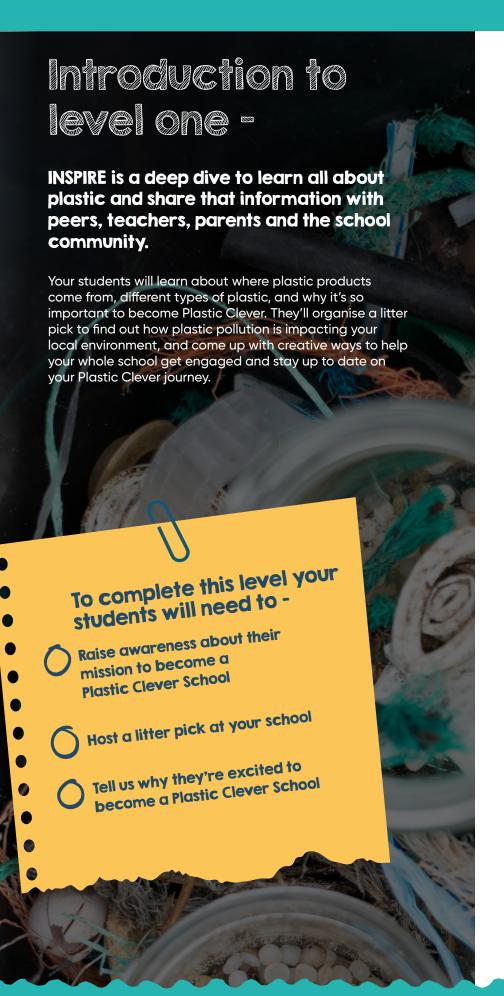


Level 3

- Run your campaign to tackle at least 2 problem plastics in your school and share a photo of the action
- Share photo evidence of two changes you made to reduce plastic waste at school
- Tell us about your proudest moment during your campaign and what you plan to do next!

# Levell Inspire





# Pupil workbook resources =



How is placeful mode?

Was a surrounded to the s

Assembly / presentation

How plastic is made





Plastics and Climate Change

Different types of plastic





Designing your Plastic Clever Schools wall

Litter pick guide

# Supporting your students



## Raise awareness

### Enable students to host an assembly or presentation

An assembly or workshop is a great way to reach out to the wider student body and generate interest and excitement. It can be delivered by staff or students (or delivering together is always fun!) and you can even invite other staff, parents, and carers to join in - reaching the whole community at once. Download the presentation here.

### Ensure students have somewhere to create their Plastic Clever Schools wall

Somewhere in a central location with lots of footfall is ideal. Alternatively, could they use a digital space, perhaps a page on the school website?

### Help identify key stakeholders

Who do your pupils need to be onboard and motivate? Once you know who you need to inspire, you can decide on the level of engagement you would like to have with them.

Presenting to the whole school can feel a bit daunting. Here are a few ideas to help:

- 1. Target one year group at a time
- 2. Divide and conquer-share the presentation out between friends so that each person only has a small part to present. The moral support will go a long way too!
- 3. Pre record! It's not easy standing up infront of your peers. Recording the assembly instead could take the pressure off while keeping students at the heart of the action.



Check out page 10 in the student workbook for more info

## Host a litter pick

## Support with the logistics of organising the litter pick

Your students may need you to supervise the event and help with providing equipment (bags, gloves, litter pickers etc). If they are planning to run a bigger clean up, perhaps inviting parents/carers & community members to join, then you may be able to support by extending invitations, helping with timings and carrying out a risk assessment with them.

Become citizen scientists by logging your litter pick data in the Kids Against Plastic app!

### **Helpful hint:**

Learning about plastic is a great platform from which to explore wider topics of sustainability such as climate change, biodiversity loss and a range of social and economic topics too. We've created a student resource to introduce the connection between plastics and Climate. Take a look here.



Check out page 9 in the pupil workbook for more info

## **Share!**

Help your students share their progress and tell us why they want to make their school plastic clever. Creativity is welcomed! They could make a video, write an article, produce a presentation or find another creative way to share.

Plan what to include in this report by asking why this issue feels so important to them and what impact they think they can have at school and in the local community. If they are including video or photos of themselves in their evidence, make sure they have the necessary permissions for sharing these as part of their evidence.



# Engaging staff, parents and your wider community



## Introduce the Ocean Plastics Academy

If you haven't already, introduce your colleagues to Ocean Plastics Academy. Our curriculum aligned resources provide everything you need to embed learning in Geography, Science and D&T.

More information is included on page 4 and on the Common Seas website.



Show how Ocean Plastics Academy and becoming a Plastic Clever School aligns with the SDGs

Common Seas has worked with partners to create a set of universal Ocean Plastics Learning Objectives, utilising the frameworks developed by UNESCO and those working for Ocean Literacy.

> Click to access Ocean Plastics <u>Learning Objectives</u>



The Act on Plastic staff meeting slideshow can be used to introduce the plastic pollution crisis and explain how the stages of this toolkit will empower the school community to take positive

Download the slideshow here

## Invite speakers from environmental organisations to present to stakeholders and pupils

Why not get in touch with us to see if we can help? You can email us at hello@commonseas.com

Alternatively, is there a parent or local organisation who might be interested in coming into school to share more about their work? Having someone speak at school might be the first step in building a collaborative project.



# Curriculum resources from Ocean Plastics Academy



All of the Ocean Plastics Academy resources are design to be used either as a series of lessons, or as individual workshops to support wider school learning. Below are some examples of Ocean Plastics resources that support learning in the Inspire stage, building knowledge about how plastic is made and it's properties.

## Ocean Plastics Geography, Lesson 2: What is plastic & why is it a problem?

With plastics being ubiquitous in modern life, students examine what has made this material so popular. Students then learn what happens to litter when it enters the ocean. Finally, the lesson looks at how plastics affect turtles, and whether we have enough information to take drastic action on plastics, or whether we need to wait for more research to be conducted.

### Ocean Plastics Science, Lesson I: How are plastics made?

Students will learn how monomers and polymers dictate the properties of plastics. By making slime (a polymer) students will observe how changing the structure of a substance changes its properties.

Check out the short video, presented by 12 year old George, to introduce this slimy challenge!

## Ocean Plastics Science, Lesson 3: What happens to plastic when you throw it away?

The lesson is focused on students designing their own investigation to investigate rates of decay, comparing plastic with a biodegradable alternaitve.



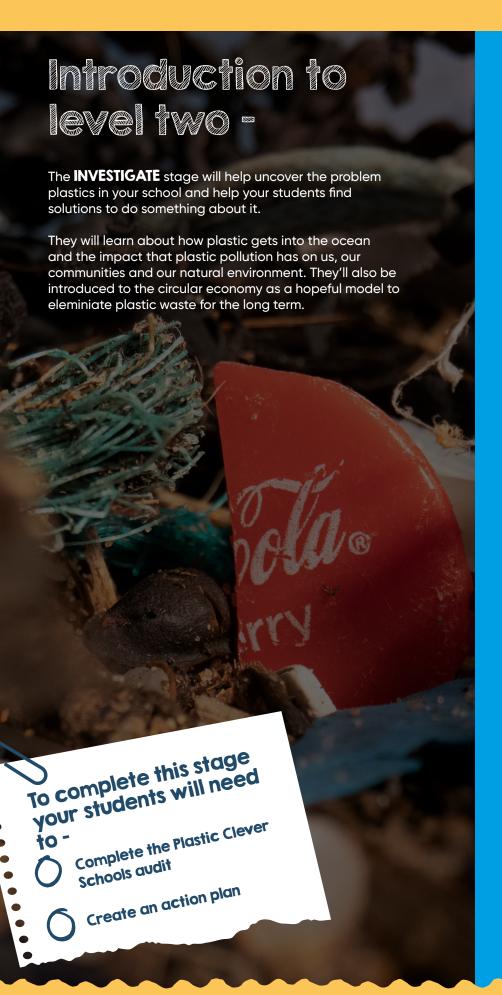
## **Congratulations!** You've reached the end of Level I





# Level 2 - Investigate





# Student . workbook resources -





Impact on Wildlife

Plastic Pollution Facts





**5 Gyres** 

**Audit** 





6 R's

**Action Plan** 





Survey

Circular Economy

# Supporting your students



# Complete the Plastic Clever Schools audit

### Support a team of students to complete the plastic waste audit

The audit will help identify single-use plastics in different areas across the schools such as canteens, classrooms and bathrooms. Some of the required data will be readily available and students will be able to complete the questions with a visual inspection around the site. Others may need input from other staff members such as the head of catering, school business managers or senior leaders.

Encourage students to seek out information from members of staff, investigate waste management facilities across site and collect data from order sheets to build their confidence as leaders. There are plenty of tips on how to collect data included in the audit tool too.

Your students will be useful sources of knowledge around the use of single-use plastics at school, and could be encouraged to carry out further investigations of waste streams that are currently not well understood, for example, plastic waste generated from packed lunches.

Download audit instructions & template here

## Create an action plan

### **Results and Action Planning**

Support your students to understand the results of the audit and consider which plastic items they want to tackle. Which items will have the biggest impact if they are reduced? What other factors do they need to consider... Cost to the school? Time to implement?

The pupil toolkit contains information about the 6Rs to help them think of the best solutions for your school. Applying principles of the circular economy will reinforce the ultimate goal of waste prevention. <u>Download our circular economy resource here.</u>



### Help distribute the social survey

The social survey is a great way to understand current perceptions and attitudes towards plastic waste and amplify student voice. It can be shared via the school website, social media channels, newsletter, or even at a school event. Getting lots of people actively involved during this stage will make student led campaigns more meaningful later on. Make sure you complete it too!

### Increase ocean literacy

Set the scene for learning about ocean plastics and introduce students to the awe and wonder of the ocean with the cross-curricular Oceans for Beginners units. By learning about the marine habitat, its diversity of life and the ways we depend on it, students can begin developing a love for the ocean and a desire to protect it. No matter where we are, we are all connected to the ocean and have a responsibility to protect it.

Each age specific unit can be accessed here



# Engaging staff, parents and your wider community



### Share the results of your audit

Share the results of the audit far and wide. If your school has social media or a blog, help your students use these channels to communicate results. We've created a few tiles you can use to add an image to your message. As well as the wider community, make sure the school leadership team (SLT) are also aware of the results. Set up a meeting with school leaders and your students so they can present the results and start a conversation about what they want to do about it.

Make sure you tag @CommonSeas @KidsAgainstPlastic and use the hashtag #PlasticCleverSchools





Communication Pack can be accessed here

### Share the action plan

Once your students have created their action plan, share it with SLT and stakeholders. Perhaps you could also ensure it goes out in the school newsletter. Your students will need everyone on board for their campaigns to be a success!

### Host a movie night

A great way to engage the wider community is to host an ocean themed movie night. There are lots of great documentaries about ocean plastics that will help inspire and educate.

## Don't forget our home learning resources

Share our free home-school resources as part of your engagement activity.

We have a 12-part series of activities to help families explore the plastics issue and take action at home. From turning a plastic bottle into a bird feeder to making slime, the activities are fun and easy-to-use.



Access the activities here

### Host a coffee morning for parents/carers

Work with students to host a coffee morning where parents can find out more about the Plastic Clever Schools process, ask questions and share ideas. Consider inviting a local environment group or borough waste officer to share stories and information. You could even organise a plastics themed story session, a trip to local recycling centre or a presentation by students to really get families engaged. This is also a great chance to share the social survey to the wider school community.



# Curriculum resources from Ocean Plastics Academy



## Ocean Plastics Geography, Lesson I: What is the Great Pacific Garbage Patch really like?

Students explore the fabled 'Great Pacific Garbage Patch' understanding the human and physical processes that have created it.

## Ocean Plastics Geography, Lesson 4: How can we deal with all this plastic?

Examine three different economic models to see if recycling really is the solution, or if we need to shake up the system and radically change the way we make, use and dispose of plastic waste.

### Ocean Plastics Science, Lesson 4: How does plastic affect the environment?

## Ocean Plastics Science, Lesson 5: Plastics and bioaccumulation

This lesson explores how pollutants from plastics accumulate in the food chain, and consider the potential implications on the health of marine life.



## **Congratulations!** You've reached the end of Level 2



Don't forget to upload your evidence! **Upload here** 

# 



# Introduction to

The **ACT** level is a chance for your students to create a positive impact through exciting campaigns to help your school and community wave goodbye to single-use

Your students will find out how they can make a difference and put new advocacy skills to practice, taking inspiration from youth activists and organisations around the world.

They'll use their action plan to build campaigns to tackle at least two of the problem plastics in your school, and share what they've found out and what they've achieved through the journey.

To complete this stage your

Run a campaign to tackle at least two problem plastics in

Share photo evidence of plastic action e.g. reusable bottles in

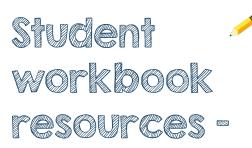
Tell us about their proudest

campaign moment

students will need to -

your school.

class







**Inspiration** 

**Building** effective campaians





**Build your Plastic Clever** Schools map



# Supporting your students



worksheet here

## Run a campaign

# Support students in showcasing their work via school website/social media/press

You can ensure that all the hard work & effort put in over the course of the Plastic Clever Schools journey is celebrated by the school as a whole, and in the community. Local newspapers are always eager to share good news, especially related to youth & the environment. You can also let the rest of the Plastic Clever Schools community know what you've been doing by tagging your social media posts @CommonSeas @Kidsagainstplastic #PlasticCleverSchools (make sure you check your schools social media policy first).

## Support student campaigns

Student campaigns are the key to becoming a Plastic Clever School. Empowering young people to think and act on behalf of their community will build their skills and confidence to make decisions and act as leaders.

Support and encourage pupils as they develop and deliver on their campaign ideas to influence their community. Help them to identify any barriers to their progress and ways in which they can overcome these. This might mean you help to amplify their work by organising an interview with a local radio station or help co-ordinate a meeting with a council member.

Link to campaigns

## Reflect!

### Help your students reflect on their journey

Reflection is an important part of the journey as it will help students to celebrate the wins, recognise the challenges and consider their next moves. Which solution or campaign was the most successful? How can they tell? What challenges did they face? Were they able to overcome them? If so, how? If not, what help, if any, would have made a difference? Importantly, what has been their proudest moment?

This last question is key. Recognising their own achievements will help develop a sense of purpose and build confidence as advocates and active citizens. Celebrate the amount of plastic waste that has been reduced, but also recognise the special ways they included others in the journey, or the time that they over came a fear of public speaking. We cannot wait to hear their stories of accomplishment!

## Share photo evidence

Assign a team of Plastic Clever photographers to capture all the action as campaigns are in full swing.

They may need access to a school camera and some instruction on how to use it. Your students will need to share pictures of the plastic reductions they've made as part of your evidence. For example, if you've swapped single use cups for reusable bottles in the classroom, send us a snap!



## What next?

# Encourage students to continue their advocacy beyond their certification

Your journey in reducing plastic in school shouldn't stop once you've become a Plastic Clever School! You've now got all the tools you need to identify the next problem plastics and keep reducing. You can also explore opportunities to have a positive impact in your community as a whole.



# Engaging staff, parents and your wider community



## **Share opportunities** for Continued **Professional Development (CPD)**

Keen to enhance staff learning, improve subject confidence and minimise workload? Once you have registered on the Plastic Clever Schools platform, keep an eye out for information and invitations to training workshops and events. You can also access some brilliant free staff development resources by our friends at **Encounter Education.** 

### Find them here

Other opportunities for training and CPD will be available through the Ocean Plastics Academy platform. Get in touch if you'd like to know more about how we can support your school to build a Plastic Clever curriculum -

hello@commonseas.com

## **Explore what long** term changes you can make through policy and/or procurement at school.

## Create a Plastic Clever Schools map

Work with students to make a map of your local area and add key information about all things Plastic Clever. Engage with local businesses to add them too. More guidance on how to create this and what to include can be found in the student workbook.



## Find champions in your local community

Who are the champions in your local community? Is there a coffee shop that has made changes to reduce their waste? Can you connect with them and find ways to celebrate and promote their efforts?

Amy & Ella, founders of Kids Against Plastic, have been helping their local businesses become Plastic Clever. This could be a great next step for your students to take Plastic Clever into the community.

Find out more here

## Host a celebration event once you've been certified as a PCS

How could you best celebrate your students' hard work? Is there a way to bring the whole school together to do so? How will you help keep this event plastic waste free? Perhaps you could create a plastic free party pack. This could be loaned out to the school community too to help families reduce waste at home on special occasions.

## Inspire other schools

Connect with other schools in your area to encourage them to sign up to Plastic Clever Schools. Your students could act as mentors and share their experience & ideas with other local primary and secondary schools.

# Curriculum resources from Ocean Plastics Academy



## Ocean Plastics D&T, Lesson 3: How do we reduce, reuse and refuse products?

Evaluate the ways in which real-world companies have applied reduce, reuse and refuse to their products and brand. Then apply their own understanding of circular economy principles to design their own fashion brand.

### Ocean Plastics D&T, Lesson 5 & 6 : Can redesigning products help?

Applying the 6 Rs, students problem solve and design innovative products which creatively solve the problem of ocean plastics.

## Ocean Plastics Geography, Lesson 6: Approaches to dealing with plastic pollution



## **Congratulations!** You've reached the end of Level 3



## About us



## **Common Seas**

We're a not-for-profit enterprise that's tackling the plastic pollution crisis by driving new policy, investing in the circular economy and catalysing a cultural shift in how we make, use and dispose of plastic. We created Ocean Plastics Academy, a movement to inspire and equip young people to take on plastic pollution in their schools, their homes and their futures.





Massive congratulations from Jo & Sarah at Common Seas





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. Since 2018, they've picked up over 90,000 pieces of single-use plastic litter (and developed an app to log it!), and gathered a team of incredible kids around the UK who are tackling plastic pollution.









### What does Plastic Clever mean?

Plastic Clever is a phrase created by Kids Against Plastic to describe a person, school or business that understands the plastic problem and is taking action to do something about it. The aim is to start reducing plastic waste, not strive for zero plastic. Progress is more important than perfection.

#### What is a 'Plastic Clever School'?

A Plastic Clever School is one which has worked as a whole community to reduce it's plastic waste- with students leading the way to inspire change and motivate action.

### What evidence do we need to submit to achieve Plastic Clever Schools status?

In each stage of the Plastic Clever journey, you can submit evidence towards achieving your award. This evidence can be in a variety of forms (photos, videos, updated policies, lesson plans, quotes, newspaper clippings, students' work, tweets, audit results) and we welcome your creativity here. However, we do have a few minimum requirements for each stage.

## What is the difference between Plastic Clever Schools & Ocean Plastics Academy?

That's a good one! Created by Common Seas, Ocean Plastics Academy is a movement to inspire and equip young people to take on the plastic pollution challenge. Plastic Clever Schools is one part of this. We believe literacy (learning about the problem), action (real life experience to tackle it) and governance are essential to achieving this. So, Ocean Plastics Academy has three elements:

- Learning about plastic with our suite of curriculum-aligned teaching resources, building knowledge and skills for students aged 5-16 years.
- · Taking action to become a Plastic Clever School through student-led, school-wide action to measure and radically reduce single use plastics.
- Creating long lasting impact through structural change for an education system fit-for-purpose to end plastic pollution, alongside pioneering schools, expert partners and friends

### How do we apply to become a Plastic Clever School?

sign up here

### How do we access all the resources?

You can find all the resources in the student workbook here