

Changing the world from our classrooms

Plastic Problems and how to solve them



This lesson plan is based on a live online lesson given by Harry Waters, our Change Makers Ambassador. Part of a series of live lessons for students called Changing the world from our classrooms.

Age: Upper primary students (5th-6th grade).

Level: A2. The lesson is designed to be accessible and engaging for students with varying levels of English proficiency but may be challenging for students with little or no prior knowledge of English vocabulary related to the environment and climate.

Primary Objectives:

The primary objective of this lesson is to raise awareness about the problems associated with single-use plastics and explore possible solutions. Students will learn about the concept of single-use plastics and their environmental impact. They will also examine individuals who have made a difference in various fields and identify the qualities required to be a change maker. Furthermore, students will discuss specific plastic problems, brainstorm solutions, and explore methods to raise awareness about these issues.

The lesson will conclude with an activity to encourage students to take action by reducing their use of single-use plastics and participating in litter picking.

Additionally, students will be introduced to www.changemakersworld.live where they can further engage in activities and share their contributions.

*See the last page for a detailed list of subsidiary objectives.

Introduction:

- Begin the lesson by engaging the students in a discussion about everyday items they use and then throw away, such as plastic bags, water bottles, and cups. Ask them if they know what these items have in common. Example question: "Can you think of any items that you use only once and then throw away?"
- Explain that these items are known as single-use plastics. They are designed for convenience but have a significant impact on the environment. Example explanation: "Single-use plastics are things that we use one time and then throw away. They include items like plastic bags, water bottles, and cups."
- Provide examples of single-use plastics to help students visualize and understand the concept. Example: "Plastic bags are one type of single-use plastic. We use them to carry things and then throw them away. Similarly, plastic water bottles are designed for one-time use, and after we drink the water, they are discarded."
- Emphasize the temporary nature of single-use plastics and their impact on the environment. Example: "What makes single-use plastics problematic is that they are used only once, for

a very short period, and then they end up in landfills or as litter. Did you know that a single plastic bag is used for an average of only 12 minutes before being thrown away? That's like using a bag for just one video game level or half an episode of Friends!"

- Encourage students to reflect on why single-use plastics could be a problem. Example prompts: "Why do you think single-use plastics could be harmful to the environment? How do you think they contribute to pollution?"
- Conclude the introduction by explaining the objective of the lesson - to understand the concept of single-use plastics and explore ways to address the plastic problem. Example: "In this lesson, we will dive deeper into the issue of single-use plastics and their impact on the environment. We will discuss why they are a problem and explore potential solutions to reduce their use."

Note: During the introduction, feel free to show visual aids or props like examples of single-use plastics to enhance student understanding and engagement. Encourage students to ask questions and participate actively in the discussion.

Ask students to think of (and write down) as many different single-use plastics as they can in 93 seconds.

Part 1: Change Makers through History

- Ask students how many of the images they recognise and give them some information about what they did.
- Display or distribute a list of names: **Katherine Johnson, Thomas Crapper, Rosa Parks, Edward Jenner**. Ask students if they recognize any of these names and what they know about them. Example prompts: "Do any of these names sound familiar to you? Can you share what you know about any of these individuals?"
- Discuss the identities and contributions of each person on the list:

Picture 4: **Katherine Johnson**: A mathematician who worked for NASA and made significant contributions to the U.S. space program, including calculating trajectories for space missions like the Apollo moon landing.

Picture 3: **Thomas Crapper**: An English plumber who popularized the modern flushing toilet and made improvements to plumbing systems.

Picture 2: **Rosa Parks**: An African-American civil rights activist known for her pivotal role in the Montgomery bus boycott, which challenged racial segregation in the United States.

Picture 1: **Edward Jenner**: A British physician who developed the first successful smallpox vaccine, contributing to the eradication of the disease.

Ask students to look at the pictures of the young change makers making a difference to the world of plastics today. Encourage them to find out more about them.

Picture 1: Fionn Ferraira an inventor and scientist

Picture 2: Sammy Vance a kindness campaigner

Picture 3: Amy and Ella Meek Kids Against Plastic: Anti-plastic campaigners and youth empowerment workers

Picture 4: Melati Wijssen: Founder of Bye-Bye plastic bags and professional change maker.

- Engage the students in a discussion about the qualities and characteristics they think these individuals possessed that allowed them to become change makers. Encourage students to share their ideas and provide examples. Example prompts: "What qualities do you think these individuals had that helped them make

- a difference? Can you think of any specific examples from their lives or achievements?"
- List the qualities and characteristics mentioned by the students on the board or on a chart paper.
Example qualities: determination, courage, intelligence, innovation, perseverance, empathy, leadership, vision, dedication, resilience, etc.
- Facilitate a class discussion to explore the importance of these qualities in bringing about positive change in the world.
Example questions: "Why do you think these qualities are essential for someone to become a change maker? How do these qualities help individuals overcome challenges and make a difference?"
- Summarize the discussion and emphasize that anyone can become a change maker by developing these qualities and taking action in their own way.
- Example statement: "Becoming a change maker requires a combination of qualities such as determination, courage, innovation, and empathy. By developing these qualities and taking action, each one of us has the potential to make a positive difference in the world."

Note: Encourage students to think beyond the examples given in the lesson and share their own examples of change makers from different fields or historical periods. This discussion can inspire students to recognize the potential they have to effect change in their own lives and communities.

Part 2: Introduce the topic of plastic problems and solutions.

Explain that single-use plastics are a significant issue contributing to pollution and environmental damage.

- Display chart with a list of plastic problems and leave the solutions section blank.**

Plastic Problems	Solutions
1. Single-use-plastic shopping bags	1.
2.	2.
3.	3.

- Engage the students in a discussion about the plastic problems listed, encouraging them to share their thoughts and ideas for solutions.
Example prompts: "What problems do you see with single-use plastic shopping bags? How can we find solutions to reduce their usage or impact on the environment?"
- Encourage students to brainstorm solutions for each plastic problem listed. Write their ideas in the solutions section of the chart.
Example solutions: promoting reusable shopping bags, implementing plastic bag bans or taxes, encouraging recycling programs, advocating for alternative packaging materials, etc.

Raise Awareness

- Transition to the next section on raising awareness about plastic problems. Ask students what plastic problem the school is currently focusing on raising awareness for.
Example prompt: "What plastic problem do you think our school is raising awareness for? Why do you think this problem was chosen?"
- Discuss other plastic problems that students could raise awareness for using similar methods.
Example prompts: "Which other plastic problems do you think are important to address? How could we raise awareness about those problems using the same method?"
- Encourage students to think creatively and suggest alternative ways to raise awareness about different plastic problems.

Example prompts: “Besides the method we used, what other ways can you think of to raise awareness about plastic problems? How can we reach a wider audience and make a bigger impact?”

- Introduce the concept of taking action against single-use plastic. Highlight that simple actions like not buying single-use plastics can make a significant difference.
- Look at the examples on changemakersworld.live about Awareness raising campaigns using upcycled plastic and ask what other campaigns they could start.

Act

Introduce the concept of taking action against single-use plastic. Explain that there are multiple ways to make a difference.

Example statement: “Now, let’s discuss how we can take action against single-use plastic. There are various approaches, but the simplest one is to stop buying them. Additionally, doing a litter pick can be a rewarding and impactful activity.”

- Explain that a litter pick involves collecting litter or garbage from an area. Emphasize that it can be done individually or as a group, without the need for a large-scale event.

Example statement: “A litter pick is when we go out and collect litter from our surroundings. It doesn’t have to be a massive community event like the one from Vietnam on www.changemakersworld.live Even a small-scale litter pick can have a positive impact on the environment.”

- Share videos and images of litter picks, such as the ones mentioned in the lesson. Provide an opportunity for students to watch and observe the individuals in action.
- After watching the videos, ask the students the following questions to stimulate reflection and discussion:

Where are the individuals going when they do their litter pick? What non-plastic items do they pick up? What plastic items do they collect?

- Allow students to share their answers and observations with the class. Encourage them to think about the significance of the litter picks and how they contribute to addressing the issue of plastic pollution.
- Facilitate a brief discussion about the impact of litter picks and how they relate to the larger goal of reducing single-use plastic.

Example prompt: “How do you think these litter picks contribute to addressing the problem of single-use plastic? What other positive outcomes can result from engaging in such activities?”

- Summarize the discussion and reinforce the importance of taking action in one’s own capacity to combat single-use plastic.

Example statement: “By watching these litter pick videos, we can see that even small efforts can make a difference. Remember, every action counts when it comes to reducing single-use plastic. Let’s think about how we can incorporate similar activities into our own lives to contribute to a cleaner and healthier environment.”

Post-Lesson Challenge

We have an amazing hub filled with ideas on how your students can make a difference to the world and become Change Makers.

It’s called www.changemakersworld.live

Our challenge to you is to try one of the different activities you’ve done today with your students and then upload their work to the site.

You, your students and your school will all get a lovely certificate, but more importantly you’ll be able to help inspire other people from around the world to make a difference and take their first steps to become **Change Makers**.

*Subsidiary objectives

Vocabulary Development:

Introduce and reinforce key vocabulary related to single-use plastics and environmental issues. Provide opportunities for students to practice pronouncing and using these words in context.

Critical Thinking and Problem-Solving Skills:

Encourage students to think critically about the environmental impact of single-use plastics. Foster problem-solving skills by brainstorming and proposing solutions to plastic problems.

Research and Information Gathering:

Encourage students to research and gather information about plastic pollution and its effects on the environment.

Promote independent learning and information literacy skills.

Cultural and Historical Awareness:

Familiarize students with influential individuals from different cultural backgrounds who have made significant contributions in their respective fields.

Develop an understanding of the historical context surrounding key figures and their achievements.

Collaboration and Communication:

Promote collaborative learning through group discussions, brainstorming activities, and sharing ideas for solutions.

Encourage effective communication skills by providing opportunities for students to present their findings and opinions.

Environmental Responsibility and Action:

Instill a sense of environmental responsibility by highlighting the importance of reducing the use of single-use plastics.

Encourage students to take action through individual or collective efforts, such as participating in litter picking activities.

Digital Literacy:

Introduce students to online resources and platforms, such as the

www.changemakersworld.live website, to promote digital literacy and engagement.

Foster responsible and safe online behaviour while navigating and utilizing online resources.

Reflection and Self-Evaluation:

Provide opportunities for students to reflect on their own plastic consumption habits and identify areas for improvement.

Encourage self-evaluation of personal contributions to the lesson's objectives and post-lesson challenges.

This lesson was originally delivered as part of our **Change Makers** Live Lessons for Students series. If you'd like your students to take part in the next live lesson, go to macmillanenglish.com/advancingfutures for more details and to register your class.

