

2 lessons

**50
minutes**

Age range

**7 - 11
years**



PLASTIC

Changemakers

MODULE 2: LESSON PLAN
REDUCE, REUSE, RECYCLE

Module 2: Plastic the 3Rs: Reduce, Reuse, Recycle

Module Facilitator: Adrien	Module Objectives
	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Identify hidden plastics in everyday items and estimate the number of years that they take to decompose • Explain and distinguish between the 3Rs: Reduce, Reuse, Recycle and then sort items by material • Identify better alternatives in their lives to reduce, reuse and recycle everyday items • Create a house pledge (set of guidelines to follow)

Note to teachers:	Icon Legend
<ul style="list-style-type: none"> • This module consists of 2 lessons where the main activities are approximately 50 minutes each. They can be completed sequentially in one session or split over two sessions, depending on the availability of time. • The starter and conclusion activities introduce and conclude both lessons and can be done separately or in conjunction with the lessons. • This module contains Literacy and Numeracy activities. • This module is intended for students ages 7 - 11 but could be adapted otherwise. • Teachers either provide a wide range of plastic items or ask students to each bring a plastic object prior to the lesson. 	<p>NUMERACY</p>  <p>LITERACY</p> 

Link to the Miraculous Ladybug "Action" Episode:

This module is directly linked to the Miraculous Ladybug Episode, particularly in these scenes:

- **In minute 9** of the episode, Marinette and her friends interrupt the news to raise awareness about the plastic problem that affects the city of Paris and how everyone can make better choices in their lives.
- **In minute 21** of the episode, Marinette and Cat Noir advise Bertrand King to manufacture products that can be reused or recycled and made from things that decompose.
- **In minute 22** of the episode, Marinette’s dad, Tom explains how they’ve replaced plastic items they used in their bakery with eco-friendly, reusable, and recyclable items such as wooden stirrers, wheat straw cups, and cloth bags.

Time	Activities	Resources/ Materials
Starter		
<p>5 minutes</p> 	<p>Key Vocabulary: Biodegradable, decompose or breakdown, compostable, microplastic, landfill, reduce, reuse, recycle</p> <p>Show images of a landfill site to encourage students to think about garbage - where it goes and how long it might take to break down?</p> <p>What do you see or notice? Have you ever seen a landfill before? How did it get here?</p>	<p>Projector/interactive whiteboard/screen for presentation (Teacher PowerPoint slides 1-22 for entire lesson)</p> <p>Images of landfill sites in Teacher PowerPoint, Slides 6 and 7</p>
<p>10 minutes</p> 	<p>Matching game: Students work in small groups (3-4) to match items to the number of years it takes to decompose. Use this to assess prior knowledge.</p> <p>Ask the class to share how they have matched items. Provide the correct answers and begin a class discussion around the vocabulary in the lesson using the matching game as a stimulus.</p> <p>Opportunity to clear up misconceptions linked to how long items take to decompose/ items containing hidden plastics.</p>	<p>Matching Game Worksheets (Page 4 - 6 of resource booklet)</p>

Time	Activities	Resources/ Materials
Lesson 1 - Main		
5 minutes	<p>*Note to teachers Create a three-column chart paper with the words “Reduce, Reuse, Recycle” at the top. Throughout the lesson, record student responses to practice reducing, reusing, and recycling using this chart. This can be used when students create their pledges to action.</p> <p>Define the key terms 3Rs in relation to plastic: Reduce, Reuse, Recycle:</p> <ul style="list-style-type: none"> • Reuse: use something more than once e.g. Tupperware. • Reduce: cut down on the amount of plastic you use by choosing alternatives that have less plastic or are made from alternative materials. • Recycle: break down a plastic item back to plastic to recreate it into something new e.g. bin bags. 	<p>Vocabulary worksheet (pages 1 to 3 of the resource booklet)</p> <p>Definition of the 3 R’s: page 3 of the Teacher PowerPoint)</p>
20 minutes	<p>Focus on reduce/reuse: Discuss ways of reducing how much waste you produce (e.g. using reusable water bottles/ straws, making different choices when shopping).</p> <p>How does this affect the impact on the landfill you just saw? What about waterways such as the ocean and rivers? What about the animals and their environment if people reduced and reused more?</p> <p>Provide examples of ways people can Reuse items in their everyday lives (e.g. clothing donation/cutlery).</p> <p>Discuss items not made from plastic and discuss composting as a method of reusing (coffee cups/ food waste). Reinforcing vocabulary (biodegradable/ compostable) with examples.</p>	<p>How can we help with the situation? Page 11 - 14 of the Teacher PowerPoint</p>

<p>20 minutes</p> 	<p>Pair and share: Question: What have you done to ‘reduce’ and ‘reuse’ everyday items?</p> <p>Students work in pairs to record ways they have already reduced and reused at home or at school as well as new ways.</p> <p>Examples could include: passing clothes on, wearing clothes longer, choosing alternatives made with less plastic or from other materials like wood, glass such as reusable water bottles, bamboo toothbrushes, cloth bags, supermarket foods with less or no packaging, non-plastic cutlery, paper straws, etc.</p> <p>Important to remind students that the alternative they choose should also be able to be regularly reused (e.g. Tupperware instead of paper plates, stainless steel water bottle rather than a paper/plastic cup).</p> <p>Extension Activity: students can use the Module 2 Vocabulary worksheet to deepen their understanding of the key terms.</p>	<p>Teacher PowerPoint Slide 19</p> <p>Leadership Profile Worksheet (page 7 of resource booklet)</p>
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Time	Activities	Resources/ Materials
Lesson 2 - Main		
<p>20 minutes</p>	<p>Focus on recycling:</p> <p>Note to teachers: In advance of the lesson, find out what types of plastic are recycled in your country of context. If this is not possible, use slide 17 of the PowerPoint to give an example of recycling in the US.</p> <p>Define recycle - a process to change waste into materials that can be used to make something else.</p> <p>Share the image of the recycling bins - have you seen these before? Do you know what goes into these bins? Remind students that the color of the bins will vary depending on the country and local area.</p>	<p>Vocabulary worksheet (pages 1 to 3 of the resource booklet)</p> <p>Teacher PowerPoint Slide 20</p>

	<p>If you have access to a plastic recycling bin in your classroom, explain to students that they will now sort the bin into recyclable and non-recyclable plastics.</p> <p>Take out all of the items which are a combination of recyclable and non-recyclable plastic and discuss that not all items, just because they are plastic, are able to be recycled. This varies across the world. Use PowerPoint, slide 18 as an example.</p> <p>If you don't have access to a plastic recycling bin in your classroom, share slide 18 of the PowerPoint to encourage discussion of the types of items that are recycled in the US. Do you know any plastic items that can't be recycled (within your country of context)?</p>	
<p>5 minutes</p>	<p>Present the flow chart of what happens once an item is put in the recycle bin. For example, it could be transported to a recycling plant, sorted, made into something else or put into the environment (often as landfill).</p> <p>In pairs: Students work in pairs again to discuss and add further notes about what items they already recycle and other possible items they could recycle.</p>	<p>Flow Chart (Page 8 of Resource Booklet)</p> <p>Teacher PowerPoint Slide 20</p>
<p>20 minutes</p>	<p>Student Pledge</p> <p>Small group activity: Split the students into groups (3-4), half the class to work on three small changes that they can implement in school to Reduce, Reuse & Recycle and the other half the class to work on small changes they can implement at home to Reduce, Reuse and Recycle. Use PowerPoint slide 19 as an example of how their pledge might look like.</p> <p>Independent task: Students complete the 'Pledge' template to show ways in which they will implement the 3Rs at home and at school. How might they also encourage their family to make a pledge? Students pick outcomes they feel more passionate about and more impactful to their situation.</p> <p>Homework task: Share the pledge with family members and discuss how to make changes moving forward.</p>	<p>My Changemaker Pledge Template (page 10 of Resource Booklet)</p> <p>Teacher PowerPoint Slide 20</p>

Conclusion

10 minutes	Reflection Pair and share: Encourage the class in pairs to reflect on the following questions (PowerPoint, slide 22) Why is it important to follow the 3Rs? If everyone followed the 3Rs, how would this improve the environment? Why do you think people don't follow the 3Rs?	Teacher PowerPoint Slide 21-22
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Notes for low-tech and non-tech classrooms

- If there is access to a printer/photocopier, print/copy worksheets and images from the PowerPoint. All of the worksheets, except for the student pledge, can be printed for partner work.
- If there is no access to a printer/photocopier, create a whole class shared list of everyday items that could be reused or recycled - use and add to the items on slide 15 of the PowerPoint. For the 'Recycling vs. Landfill' worksheet, use a physical plastic item and encourage a whole class discussion about what happens when it is recycled and not recycled; record responses as a flow-chart. Copy and model the 'Changemaker Pledge Template' on a board/flipchart and students design their own pledges from the given template.

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