



Plant Plastic

What is the problem with plastic?

- According to the United Nations, 300 million tonnes of plastic is created each year.
- Plastic can take hundreds of years to decompose in landfills.

Photo: Plastic bottles.

Scientists Make Plant-Based Plastic

Scientists may have come up with a clever way of tackling the plastic problem. Their **unique** idea is certainly food for thought.

A company in the Netherlands thinks that they have come up with a plastic that will be better for the environment by creating plastic from a plant's sugar!

They currently make 5000 tonnes of plastic every year from the sugars of corn, wheat or beets. They call this special type of plastic PEF.

The owner of the company, Tom van Atken, said the PEF bottles were "100% plant-based, 100% **recyclable** plastic."

They claim that this means that the bottles can **decompose** within a year if people use a **composter**.

This would hugely reduce waste in landfills as most plastic bottles can take hundreds of years to decompose.

Coming up with ideas like plastics made from plants is not the only solution to the plastic problem. People are also being encouraged to use fewer single-use plastics.

The UK government is set to mostly ban

the use of plastic straws, cotton buds and drink stirrers in October. According to the government, the UK uses nearly five billion plastic straws and nearly two billion plastic cotton buds each year!

Last October, around half a million girls and young women made a plastic promise. Rainbows, Brownies and Girl Guides will promise to take action on plastic pollution.

You'll have to wait a while before you can buy one of these plant-based plastic bottles. The scientists still have further tests to do. If they are successful, they hope the new bottles will be hitting our shelves by 2023.

Glossary

unique	Unusual.
recyclable	Converting waste into reusable material.
decompose	To rot or decay.
composter	Device used to create compost which is used to help plants grow.

Questions

1. When might the plant-based bottles be available in shops?

- ☐ 2020
- ☐ 2021
- ☐ 2022
- ☐ 2023

2. Why are people interested in plant-based plastics?

3. Why do you think scientists will have to do further tests?

4. "... by creating plastic from a plant's sugar!" This suggests that...

- ☐ This is a normal way to make plastic.
- ☐ This is an unusual way of making plastic.
- ☐ The author is shouting.
- ☐ Plastics can not be made from sugar.

5. How do you think scientists will feel about this news?

6. Summarise the story in 20 words or fewer.

Answers

1. When might the plant-based bottles be available in shops?

- ☐ 2020
- ☐ 2021
- ☐ 2022
- ☒ **2023**

2. Why are people interested in plant-based plastics?

Accept any answer which refers to the time it takes to decompose, e.g. Plant-based plastics can decompose within a year in a composter. Most plastics can take hundreds of years.

3. Why do you think scientists will have to do further tests?

Accept any reasonable answer which refers to repeat testing, e.g. I think scientists will have to do further tests to make sure their results are correct.

4. "... by creating plastic from a plant's sugar!" This suggests that...

- ☐ This is a normal way to make plastic.
- ☒ **This is an unusual way of making plastic.**
- ☐ The author is shouting.
- ☐ Plastics can not be made from sugar.

5. How do you think scientists will feel about this news?

Accept any reasonable answer, e.g. I think scientists will be excited to have created a plastic bottle, which can be recycled.

6. Summarise the story in 20 words or fewer.

Accept any reasonable answer that is 20 words or fewer, e.g. Scientists have created plastic bottles from plant sugars. They can be recycled and decompose within a year.