

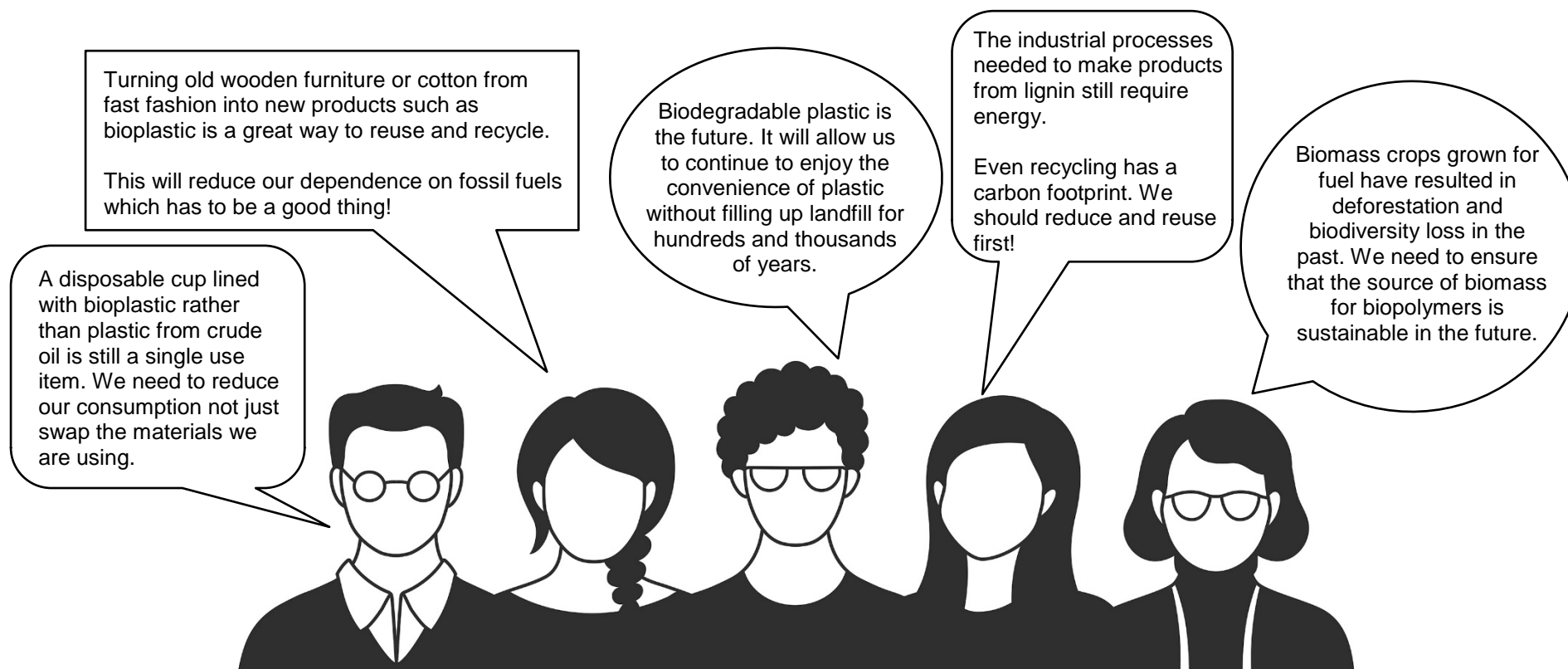
Plant-based plastics – talking heads

Education in Chemistry

November 2020

rsc.li/3k4Vuyg

Making bioplastic from lignin and cellulose is an emerging chemical technology. In pairs or small groups, debate the pros and cons of replacing plastic made from crude oil with plastic made from plants using the talking heads below to prompt discussion. Who do you agree with? How would you respond to someone you disagree with? Be prepared to share your ideas and reasons with the class.



Turning old wooden furniture or cotton from fast fashion into new products such as bioplastic is a great way to reuse and recycle.

This will reduce our dependence on fossil fuels which has to be a good thing!

A disposable cup lined with bioplastic rather than plastic from crude oil is still a single use item. We need to reduce our consumption not just swap the materials we are using.

Biodegradable plastic is the future. It will allow us to continue to enjoy the convenience of plastic without filling up landfill for hundreds and thousands of years.

The industrial processes needed to make products from lignin still require energy.

Even recycling has a carbon footprint. We should reduce and reuse first!

Biomass crops grown for fuel have resulted in deforestation and biodiversity loss in the past. We need to ensure that the source of biomass for biopolymers is sustainable in the future.