

Part 5 Plastics

Activity No	Activity Name	Lesson type	Activity Description
5.1	What is a polymer?	Engage, Explore & Explain	Students will use modelling to learn what a polymer is and how plastics have replaced traditional materials.
		Classroom & Digital	
		Long	
5.2	Plastic from petroleum	Explore, Explain & Elaborate	Students will learn that cracking obtains more useful fractions. Students make models to demonstrate polymerisation.
		Classroom & Digital	
		Medium	
5.3	Polymer properties	Explore, Explain & Elaborate	Students will compare thermosetting and thermosoftening plastics. They will test plastic samples to link properties to uses. Recycling of plastics is introduced.
		Hands-on & Digital	
		Long	
5.4	Making polymers	Explore, Explain & Elaborate	Students will make and test polymers using wood glue. They will use different additives to investigate the effects on properties.
		Hands-on	
		Medium	
5.5	Natural polymers	Explore, Explain, Elaborate & Evaluate	Natural polymers are introduced, with an emphasis on cellulose as a source of biodegradable plastics. Students make and test starch biopolymers.
		Hands-on & Digital	
		Long	
5.6	Recycling	Explain, Elaborate & Evaluate	The class investigates recycling processes in their local area. Students design their own investigation into what people recycle and how recycling works.
		Classroom & Digital	
		Long	
5.6	Sample test	Evaluate	A sample test (summative assessment) and marking scheme is available to teachers by request from <i>Science by Doing</i> . You may need to adapt the test to the needs of your students.
		Classroom	
		Long	

Optional

Last modified: May 2019