Plastics and Us

Its Contribution Towards a Sustainable Society

Educational DVD Total run time: 88.5 min.

1 Plastic and the Foodie

12 min.

The plastics found all around us

A foodie introduces the various types of plastics used in the dining scene. He shows how a single food outing can involve a lot of plastic products, each one offering different advantages that make them suited for different purposes.

2 Classifying Plastics!

12 min.

How to separate plastics

The Plastic Classification Duo uses a variety of methods to separate the many different kinds of plastics. They show how five types of plastics can be classified based on the different properties of each type of plastic.

3 6 Mysteries of Plastic Bottles 15 min.

The characteristics of plastic bottles

This chapter explores six “mysteries” related to plastic bottles—such as why they come in different shapes and how they are made—to explain what qualities define a plastic bottle. Part of the chapter covers plastic bottle recycling, as well as plastic recycling as a whole.

4 Plastic Makes Perfect

6.5 min.

What is plastics…weren’t plastics?

This chapter asks the viewer to imagine a world where the plastics around them were not made of plastic. Through hypothetical scenarios and explanations, the chapter explores the advantages offered by plastic and what role it plays in our lives.

5 To Dispose or Not? Recycling Plastic 7.5 min.

Making efficient use of plastics

This chapter explores the roles of plastic recycling strategies and circular economies in making efficient use of plastics. Topics covered include the 3Rs (reduce, reuse, recycle), using plastic waste efficiently through material and chemical recycling and energy recovery, and how sometimes plastics simply need to be disposed, such as in the medical field.

Bonus video 1

Developing the Lithium-ion Battery

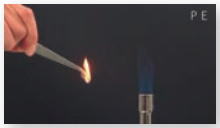
8 min.

Interview with Dr. Akira Yoshino

Interview footage of Dr. Akira Yoshino—who won the Nobel Prize in Chemistry for his work on lithium-ion batteries—is interspersed with other footage to explain the workings of the lithium-ion battery.

Bonus video 2

Experiments with Plastic



A series of experiments that can be done with plastics

- Differentiating plastics by density 2 min.
- Differentiating plastics by how they burn 1.5 min.
- Plastics used as cushioning materials: Experiment using polystyrene foam and eggs 2.5 min.
- Experience the recycling of plastic: Dissolving and re-foaming polystyrene foam 3 min.
- Effective use of waste plastic: Reduction of copper oxide 3 min.
- Heat shrinkage of stretchable plastic 2.5 min.

Bonus video 3

Ideal Plastic Materials 11 min.

Plastics that can solve global environmental problems

This chapter explores new types of plastics that can help solve environmental problems, as well as high-performance plastics used in smartphones and other devices. It includes interviews with a researcher of high-performance polymers at Asahi Kasei and a developer of automotive materials at Toray Industries.

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The Joint Secretariat of JaIME is managed by the Japan Chemical Industry Association, Japan Plastics Industry Federation, Plastic Waste Management Institute, Japan Petrochemical Industry Association, and Vinyl Environmental Council.