

MIDDLE STEM/STEAM ENRICHMENT LESSONS

STEM/STEAM

Plastic Pollution (Save the Turtles) **NEW**

This lesson will expose students to the amount of plastic created and discarded by human beings and its effect on the oceans. Students will be able to quantify the amounts of plastic that are consumed and disposed of into the ocean, reflect on their personal plastic consumption and brainstorm, plan and diagram a solution for the Great Pacific Garbage Patch.

[Presentation](#)

[Quiz](#)

[How Big the Great Pacific Garbage Patch Really Is](#)

[Forbes Ocean Clean-Up Project](#)

[Sustainability Project Plan](#)

[Exemplar for Sustainability Project](#)

STEM/STEAM

Surface Tension **NEW**

Students will learn about surface tension and its importance in this lesson. Students will see how water uses surface tension to stick together in microgravity environments, like the International Space Station.

[Presentation](#)

[STEMonstrations Surface Tension](#)

STEM/STEAM

Water Conservation

In this lesson, students will learn how Phoenix, Arizona gets water and some possible future problems residents may face with water shortage. Students will also read about different techniques to conserve water.

[Presentation](#)

[Supporting Links](#)

STEM/STEAM

Introduction to Rube Goldberg Devices

In this lesson, students will learn about Rube Goldberg devices and how they are composed of simple machines. Students will design and draw a Rube Goldberg device.

[Presentation](#)

[Rube Goldberg Meets the Invention Age](#)

[Simple Machines in Everyday Life](#)

[Simple Machines for Kids](#)

[Rube Goldberg Game](#)

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Introduction to Computer Programming

In this lesson, students will learn about how computers and other devices are taught to perform actions and accomplish tasks. They will then begin exploring the process writing a programming "code".

[Recorded Presentation](#)

[Supporting Links](#)

STEM/STEAM

Wind Power

Students will engage in a design challenge to design a device that uses the power of the wind to generate electricity.

[Presentation](#)