

ABOUT US

The PlastiVan® program is a great way to educate people of all ages about the chemistry, history, processing, manufacturing, applications and sustainability of plastics.

PlastiVan® educators are skilled at tailoring each presentation to meet the needs and grade-level expectations of every classroom and teacher through science, engineering, technology, and math (STEM).



GRADE SCHOOL

TOPICS

- What is a polymer chain?
- What do plastics do?
- Where do plastics come from?
- Who makes plastics?
- Making plastics out of corn
- Plastics at the grocery store
- Plastics in your car
- Plastics in medicine
- What do engineers and scientists do?
- How do you make that water bottle?
- What is recycling?
- Thermoplastics can be recycled
- Reduce, Reuse, Recycle
- Whoopie cushion plastics fun
- Diaper gel is a polymer!
- Slime is a polymer!
- Plastics in the ocean - how can I help?

Middle SCHOOL

TOPICS

- History of polymers/plastics
- How your life is impacted by plastics
- What engineers and scientists do
- Major industries that use plastics
- Basic raw materials for plastics
- Biopolymers and sustainable materials
- Amorphous and crystalline polymer structure
- Manipulating amorphous polymer chains
- Injection molding and thermoplastics
- Bottle preforms and blow molding
- Thermoset plastics and crosslinking
- Open- and closed-foamed polymers
- Material selection in product design
- Hydrophilic, hydrophobic, & oleophilic polymers
- Crosslinked polymers and non-Newtonian fluids
- Reduce, Reuse, Recycle
- Chemical vs. Mechanical Recycling
- Marine Debris – Causes and Solutions
- Single-use item vs. single-use material

High SCHOOL

TOPICS

- History of polymers/plastics
- How your life is impacted by plastics
- What engineers and scientists do
- Major industries that use plastics
- Basic raw materials for plastics
- Fractional distillation of crude oil
- Biopolymers and sustainable materials
- Amorphous and crystalline polymer structure
- Manipulating amorphous polymer chains
- Injection molding and thermoplastics
- Bottle preforms and blow molding
- Thermoset plastics and crosslinking
- Open- and closed-foamed polymers
- Material selection in product design
- Hydrophilic, hydrophobic, & oleophilic polymers
- Crosslinked polymers & non-Newtonian fluids
- Chemical vs. Mechanical Recycling
- Marine Debris – Causes and Solutions
- Recycling in your community
- Single-use item vs. single-use material
- Circular Economy vs. Sustainable Materials Management

Curriculum aligns with Next Generation Science Standards