Essential Question

What is it like to work as an automation engineer?

Vocabulary

- **Algorithm- A step-by-step set of precise rules or instructions that a computer or machine must follow to solve a problem or complete a task.**
- **Automation- The use of technology, software, and machinery to perform a task automatically without needing direct human effort.**
- **Cybersecurity- The practice of protecting computers, servers, mobile devices, electronic systems, networks, and automated machinery from digital attacks or hackers.**
- **Automation Engineer- A technology professional who designs, programs, and maintains automated systems and software so machines can perform tasks with minimal human intervention**

Before Viewing

Have students jot down answers to the following questions:

- What does it mean to be an automation engineer?
- What are the job duties of an automation engineer?
- What is the typical work environment of an automation engineer?
- What tools are used by an automation engineer to do his/her daily tasks?
- What is the education required to be an automation engineer?
- What are the skills necessary for being an automation engineer?

While Viewing

Have students think about the “Before Viewing” questions and write down the correct answers

After Viewing Activities

Have students discuss in pairs or small groups their answers to the “Before Viewing Questions” as well as the Discussion Questions for this resource.

The Careers That Work collection contains various activities for each featured career.

Grades 4-7
Career Information Worksheet
Create An Algorithm Activity
Use these activities to stimulate discussion around the preventative mechanic career.

Grades 8-12
Career Presentation
Divide your class into groups and ask them to present on the various topics around the preventative mechanic career.