SCIENCE NORTH SCIENCE NORD

MISSION TO MARS

INTERMEDIATE SCHOOL PROGRAM
Grades 6–8 | 50 minutes
Earth and Space Systems | Coding

Houston, we have a problem!
It's up to your class to use coding to take on the Mars Rover challenge. Take a journey into the world of space exploration to investigate our neighbouring red planet, Mars.

Your young aerospace engineers will design, build, and code a Mars rover using LEGO SPIKE robots. Students will connect technology, engineering, geology, and coding in this engaging, out-of-this-world space program.

KEY LEARNING OBJECTIVES

- Identify key features of Mars and its place in the solar system.
- Describe how rocks and geology help scientists understand Mars.
- Explain how Mars rovers help explore the planet and collect information.
- Use basic coding skills to program rover movement, sensors, sounds, and displays.
- Build, test, and improve a rover to complete a Mars mission challenge.

STEM TOOLS — LEGO SPIKE Prime kits

CURRICULUM EXPECTATIONS

GRADE 6 — EARTH AND SPACE SYSTEMS

- E2.1 Identify components of the solar system, including the sun, Earth, and other planets, and describe their main physical characteristics.
- E2.6 Identify various technologies used in space exploration, and describe how technological innovations have contributed to our understanding of space.

GRADES 7 & 8 — CODING AND EMERGING TECHNOLOGIES

- A2.1 Write and execute code in investigations and when modelling concepts, with a focus on automating large systems of action.
- A2.2 Identify and describe impacts of coding and emerging technologies on everyday life.