

LESSON PLAN

Title	
Lesson plan to be implemented in English/Math/Robotics class	
Aim	The main goal of this lesson plan is to introduce students to LEGO Wedo2 (Robotics)
Students age targeted	Primary School Students (age 9-12)
Estimated time	40-45 minutes
Topics covered	<ul style="list-style-type: none"> ● Introduction to LEGO wedo2 software
Facility/ Equipment	<ul style="list-style-type: none"> ● Classroom ● Internet access ● Projector ● White board ● Tablet/Laptop ● Wedo2 kit
Tools/ Materials	<ul style="list-style-type: none"> ● Handout 1 ● Handout 2
Development of activities	<p>Activity 1: Introductory video (5 minutes). Students watch an introductory video about the use of robots in our life and discuss with them for this project.</p> <p>Activity 2: Questions for discussion (5 minutes)</p> <p>Activity 3: Create Phase (20 minutes). Build Milo, the Science Rover.</p> <p>This model will give students a “first build” experience with WeDo 2.0.</p>

**Activity 4: Share phase** (10 minutes)**Present**

Before you move on to the next part of the Getting Started Project, allow the students to express themselves:

- Have a short discussion with the students about scientific and engineering instruments.
- Have your students describe how science rovers are helpful to humans.



HANDOUT 1: Video

Use the introductory video

Scientists and engineers have always challenged themselves to explore remote places and make new discoveries. To succeed in this journey, they have designed spacecraft, rovers, satellites, and robots to help them see and collect data about these new places. They have succeeded many times and failed many times, too.

Remember that failure is a chance to learn more. Use the following ideas to start thinking like a scientist:

1. Scientists send rovers to Mars.
2. They use submarines in water.
3. They fly drones into volcanoes.



HANDOUT 2: Questions for discussion

Questions for discussion

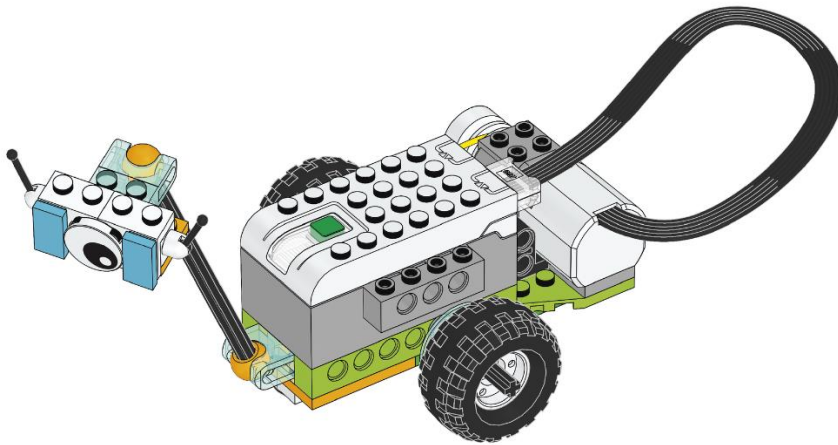
1. What do scientists and engineers do when they cannot go where they want to explore?

Scientists and engineers take these situations as challenges they want to solve. With proper resources and commitment, they will develop prototypes as possible solutions and ultimately choose the best option.

HANDOUT 3: Build & Program

Build Milo, the Science Rover.

This model will give students a “first build” experience with WeDo 2.0. The building instructions are included in the software



Program Milo.

This program will start the motor at power 8, go in one direction for 2 sec., and then stop.

The motor can be started in both directions, stopped and turned at different speeds, and activated for a specific amount of time (specified in seconds).

