

Teachers' Guide

Objectives of the lesson

Cognitive objectives

- Students use their previous knowledge to design and build their own construction

Emotional objectives

- Students are encouraged to experiment using their previous knowledge
- Students are willing to modify their construction to improve and upgrade it

Psychomotor objectives

- Students collaborate with each other to achieve the objectives of the activity
- Students can communicate effectively with their groups and in the plenary discussion, develop their critical thinking skills and be creative when they are asked to solve a problem
- Students develop their fine motor skills

Introduction to the activity

The activity is open, and students will organize in their groups without guidelines. The introductory presentation is about a gate that opens with the use of a simple machine. The objective is students to organize their thoughts, to design and implement their project.

Simple machine

Students can use whatever they consider easier for them. It is suggested to use a screw, but gears and pulleys could also work.

Building

Open building.

You can show your students the last pictures of the presentation for inspiration.

The fact that you have an open building doesn't mean that you have no work for today! Approach every group, talk to your students, try to make them see clearer their views, help them with the design, suggest new placement of pieces, etc.

Answers to the worksheet

All answers are free for every group. Encourage your students to discuss what they want to do. The worksheet is completed at the same time with the presentation, as indicated there.