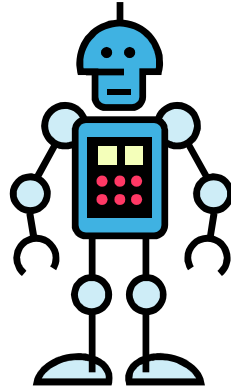


Robots

Post-visit activities



Kindergarten – 2nd grade



Activities

These activities are intended for use after your visit to the Virginia Air and Space Center. Your students should recall the information, demonstration and activities from the Jr. Mad Scientist program in order to do these activities. All of the activities can be tailored to your specific classroom needs, and the procedures listed are suggestions for teaching.

Activity 1: Identify the Parts of a Robot

During the demonstration, the students learned that robots are compound machines. They also learned that robots have parts with special names. Attached is a worksheet with some small pictures. The students must cut the pictures out and glue them to the sheet next to the appropriate label. The labels include the parts of a robot, and names of some simple machines that make up the robot.

Activity 2: Invent your own robot

During the demonstration, the students saw many types of robots. Each robot has a specific job: entertainment, putting things together, or making work easier. Have the students invent their own robots that would help make their lives easier. It could clean their room, take the trash out, make dinner, or do their homework.

Be sure they have included the three parts: Body, Power Source (battery or electricity), and Memory or Control panel.

Have the students draw or build models of their robots, depending on how involved you would like the activity to be and age appropriateness. They could also give a presentation about how their robot works and what they would use it for.

Activity 3: Human Robot

During the demonstration, the students saw how a robot was programmed to perform a task. The students also became robots and were “programmed” with the task of picking up rocks and putting them in a bucket.

Have your students play a game where one student is the robot, and the others program him or her. There are many variations of this game.

Variation 1: Have your students form a circle and place the “robot” student in the middle of the circle. Have each student give the robot a command (such as walk forward, lift your arms, bend over, dance, etc.). Be sure each student gets a turn to give a command. Choose another student to be robot

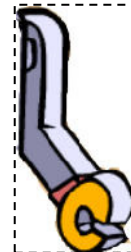
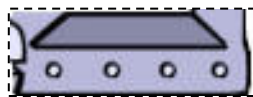
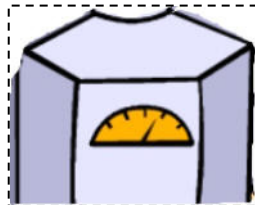
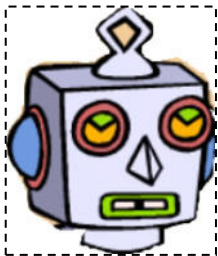
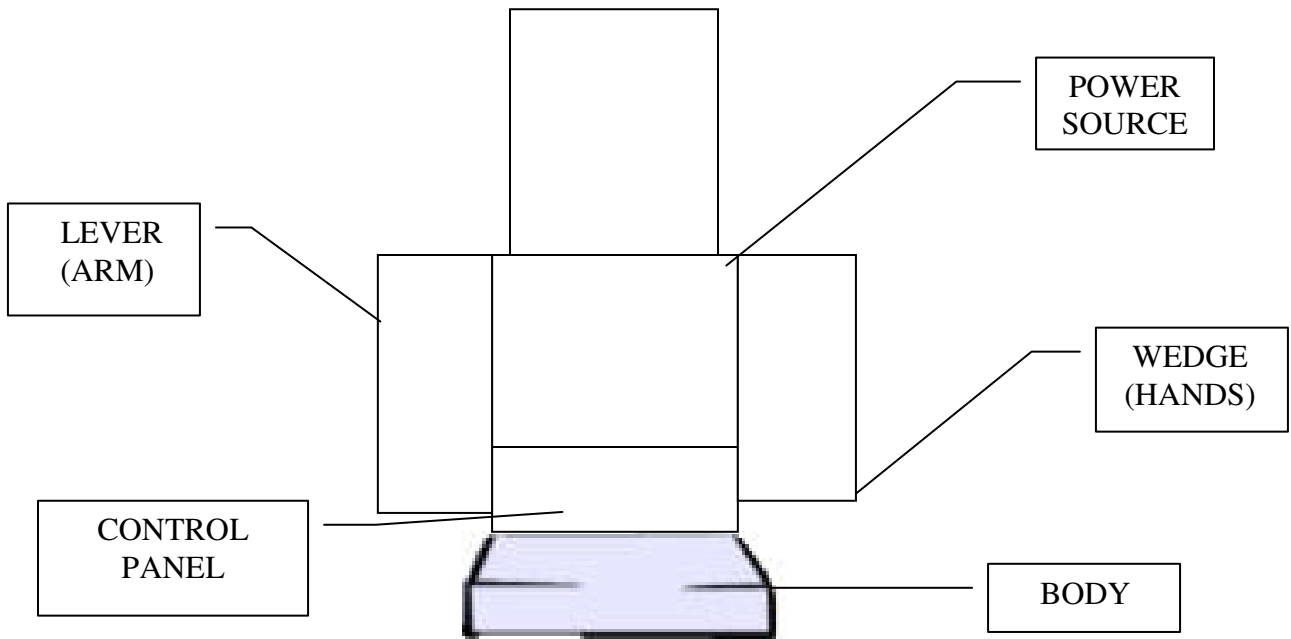
Variation 2: Have the students form a circle, with robot student in the middle. Blindfold the robot student. After the student is blindfolded, give a large paper to one student with an X on it. Each student in the circle must give a command to the robot student to get them to the X student and take his/her paper away. When the students give the command, they may only give a single command like one step forward, one turn right, lift hand in front of you, etc.

Variation 3: Build a small obstacle course, indoors or out, that two people could do at the same time. Have the students get with partners. One student of the pair will be the robot, the other will be the programmer. Each robot student will be blindfolded, and the programmer must walk beside the robot through the obstacle course. Have two pairs go through the course at the same time. The robots maneuver through the course by listening to the instructions of the programmer.

Name _____

Cut the each picture on the dotted line. Paste each picture in the box with correct label to build a robot. Name your robot.

My robot is _____



Resources

Books

- Bridgman, Roger. Robot. DK Eyewitness Books Series, DK Publishing, 2004.
- Bunting, Eve. My Robot. Houghton Mifflin Harcourt Trade & Reference Publishing, 2006.
- Calì, Davide. Mama Robot. Tundra Books Inc., 2008.
- Gifford, Clive. Robots. Roaring Book Press, 2007.
- Jones, Christianne C. Clinks the Robot. Picture Window Books, 2006.
- Ling, Stanley. Robots. Perfection Learning Corporation, 2006.

Internet

<http://spaceplace.jpl.nasa.gov/en/kids/muses2.shtml>

<http://www.robots.com/movies.php>

<http://www.pbs.org/wgbh/nova/robots/>

<http://www.robotcafe.com/>

<http://bettscomputers.com/moodle/course/view.php?id=5#WhatisaRobot>