

HOW THINGS MOVE

APPLIED SCIENCES

Designed For Students:

Grades K-2nd
Ages 5-7

HELLO EDUCATOR!

Disney Youth Education Series is pleased to be able to provide you with these materials to gauge your students' progress as they prepare for and complete their Disney Y.E.S. experience.

To encourage creative thinking, open-mindedness, and generate excitement, we suggest that you use the Pre-Trip Coursework to help your students prepare for How Things Move. Upon your return to school, you might find the Post-Trip Assessment useful to measure student learning.

These tools are sure to get your students moving in the right direction and help ensure a learning experience that is relevant, inspiring, and thought-provoking!

We look forward to hosting you at the Walt Disney World® Resort where iconic settings, imagination, and storytelling come together to create a unique learning environment and life-long memories. See you soon!

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1. Students to bring to the classroom their favorite toy, excluding computer/ electronic games.

- Students to demonstrate how their toy works/moves.
- Classroom discussion:
 - ✓ Which toys moved in similar ways?
 - ✓ What were the different ways in which the toys moved?
 - ✓ What supplied the energy for the toys to move?

2. Activity:

- Demonstrate the power of air pressure with a balloon.
 - ✓ Blow up a balloon (don't tie it off) and release it into the air. You may elect to demonstrate this with different sizes of balloons.
- Divide students into teams of 6.
- Using masking tape, create a start and finish zone for each group.
- Further divide the teams of 6 into two groups of 3. Station one group of 3 at the start line and the other at the finish line.
- This is a 6-person relay race. Students will take turns at pushing a small object such as a ping-pong ball or plastic model car from the start line to the finish line.
 - ✓ Three students will form a straight line at the starting line. Three additional students will line up at the finish line.
 - ✓ Student #1 will traverse from the start to the finish line using just their breath
 - ✓ Student #2 will traverse from the finish line to the start line using a straw and their breath
 - ✓ Student #3 will traverse from the start to the finish line using a hand-held balloon pump, such as the kind used to create balloon animals.
 - ✓ Student #4 will traverse from the start to the finish line using just their breath
 - ✓ Student #5 will traverse from the finish line to the start line using a straw and their breath
 - ✓ Student #6 will traverse from the start to the finish line using a hand-held balloon pump.
 - ✓ Students continue alternating until Student #6 crosses the start line.
- Classroom discussion:
 - ✓ Which method was most difficult and why?
 - ✓ Which method worked best and why?
 - ✓ What other types of things use air pressure to move?

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At the conclusion of the How Things Move experience, have each student do the following:

1. Identify different types of motion
2. Demonstrate or articulate how energy is used to create motion
3. Demonstrate the use of gears to create circular motion
4. Demonstrate how air pressure creates motion
5. Demonstrate how to change circular motion to linear motion
6. Demonstrate the use of magnetic energy in creating motion
7. Identify different ways that energy can be supplied