

HUGK12 Activity

Title: *Friction, Friend or Foe?*

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DCPS Standards:

Goals:

1. Define friction.
2. List four causes of friction.
3. List four pros and for cons of friction.
4. Explain how to increase and decrease friction.

Objectives:

1. For students to be able to identify the causes of friction and ways in which to overcome this force.

Prerequisite Knowledge

Background: Friction is a force that opposes motion The force we will discuss today is static friction which must be overcome before the object can be in motion.

Essential Questions:

1. What are some forces that oppose motion?
2. How does friction help us to move forward?

Laboratory Materials:

- 10 marbles
- Four different types of surfaces (rough, smooth, bumpy, slippery)
- Object that roll such as cars with moving wheels.
- Surface that we can keep flat and incline.

Differentiating Instruction :

English Language Limited (ESL) students should have no problems with this activity.

Rationale:

This activity is designed to have students become familiar with friction and how it effects our motion.

Research Activity:

Students will be given items and asked to develop four ways in which to test the absence or presence of friction. For example:

- The students will roll a car down a smooth incline surface and observe whether the had to increase the angle of the surface. Then the students will roll a car down a rough surface and state whether they had to increase the angle of the surface or give the car a little push.

EVALUATION AND ASSESMENT:

Scholars will be able to list the pros and cons of friction.