



Science Virtual Learning

6th Grade Science

Friction

April 20, 2020



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Lesson: April 20, 2020

Objective/Learning Target:
-I can analyze and explain friction.

****You will need paper for this lesson****

Warm up #1 - Let's Get Started



Which person, A or B, will get down the hill quickest? Explain **why** in your own words.

Possible Answer:
Person A will get down the hill the quickest. Snow is smoother than grass and provides less resistance.

Warm up #2 - Terms To Know

Friction: force that resists the motion of two surfaces that are touching each other

Resistance: slowing or stopping effect exerted by a material





Practice #1

Watch this video [What is Force?](#)

Answer the following questions on your piece of paper:

1. What does friction involve?
2. Why are we able to pick up pencils without having them slip out of our hands?
3. How much force was used to pull the block across the smooth surface compared to pulling the block across the rough surface?

Practice #1 - Answer Key

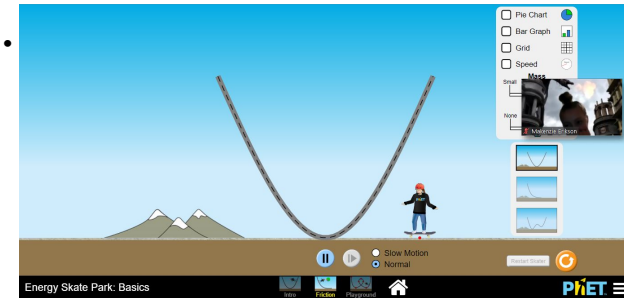
1. What does friction involve?
Physical contact between two surfaces
2. Why are we able to pick up pencils without having them slip out of our hands?
Fingerprints on our hands and fingers give us enough friction to pick up pencil.
3. How much force was used to pull the block across the smooth surface compared to pulling the block across the rough surface?
2N used across the smooth surface, 7N used across the rough surface.

Practice #2

Head on over to the [Energy PhET lab](#), make sure you click the picture that says “Friction”. Explore the simulation. Answer these questions below:

1. What happens to the speed of the skater when you increase the friction of the skater?
2. What happens to the speed of the skater when you decrease the friction of the skater?
3. Explain how friction affects the motion of the skater.

****Check your answers on the next slide.**



Practice #2 - Answer Key

1. What happens to the speed of the skater when you increase the friction of the skater? **When I increase the friction, the skater's speed decreases until he is completely stopped.**
2. What happens to the speed of the skater when you decrease the friction of the skater? **When I decrease the friction, his speed is not affected. He just keeps skating.**
3. Explain how friction affects the motion of the skater. **The more friction there is, the slower the object will move, and it will eventually stop.**



Additional Practice

- Read this [article](#) to explore Friction more!

- Watch this video: [Friction Stir Welding](#)