

Teaching News Is Elementary September 8, 2016

Each week, this lesson will share some classroom activity ideas that use the newspaper or other NIE resources. You are encouraged to modify this lesson to fit the needs of your students. For example, some classrooms may be able to use this as a worksheet and others might need to ask and answer the questions in a class discussion.

Please be sure to preview all NIE content before using it in your classroom to ensure it is appropriate for all of your students.

Materials you will need for this lesson: The Seattle Times print replica, computer or smart board, colored pens, pencils or crayons, and paper

Article: “Physics and the Fair: Forces and Motion”

Pages: NW Thursday, B3

Date: Thursday, September 8, 2016

Common Core State Standard:

CCSS.ELA-LITERACY.RI.3.10

By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2-3 text complexity band independently and proficiently.

Objective: Students will read an informational text in order to learn about gravity and other forces.

Pre- Reading Discussion Questions:

Have you ever ridden a roller coaster? How do you think roller coasters work?
(Hint: they do not have motors)

Vocabulary:

Read the following quotes and determine the meaning of the word based on how it's used in the sentence. Check your answers against the definitions at the bottom of the page.

“This is also known as **inertia**, or the tendency for objects to keep doing what they are doing unless acted upon by an outside force.”

“All objects on earth experience **gravity**. When we measure this pull, it is called weight.”

“Instead, roller coasters, such as those at the Washington State Fair, rely on the constant conversion between **potential energy** and **kinetic energy**.”

“Slowly as the coaster travels, the total energy level of the ride is lost due to **friction**.”

Journal Writing Prompts:

Create an illustration in your notebook that demonstrates the new concepts that you learned:

- Inertia
- Gravity
- Potential energy
- Kinetic energy
- Friction

You might want to include fair rides or superheroes in your pictures!

Discussion Questions:

Review the excerpt and discuss the following questions:

“The pull of gravity is different depending on where the gravity is coming from. For instance, if you were to stand on the moon, which has a smaller mass and therefore a less strong gravitational pull (approximately 1/6th of Earth’s), you would find it much easier to lift objects. You would also weigh about 1/6th the amount that you weigh on earth. This is because the gravity is not pulling as hard.”

Look up the gravitational pull of the other planets in our solar system. How much would you weigh on each one? On which one would you weigh the most? On which one would you weigh the least? How do you know? (For a good starting place, you can check out this website that does the calculations for you: <http://solarviews.com/eng/edu/weight.htm>).

Small group discussion and activity:

“In contrast, Krypton, the fictional planet where Superman is from, has a much stronger gravitational pull than earth, which could be one explanation for why superman has no trouble lifting cars or other weighty objects here on Earth.”

Write a story or make a comic book about what it would be like to live on a planet with different gravitational pull than Earth. Would the gravity be stronger or

weaker? How would this change your day to day life? Would you be a superhero? What kind of super powers would you have?

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