Lesson Plans 8/26 - 8/30

September 2 - 6, 2019

MON. SEP. 2ND

CLASSES ARE OFF

Labor Day

TUE. SEP. 3RD

8th Grade Science

Changes in Motion, Force, and Direction

Standards

MS-PS2 Motion and Stability: Forces and Interactions Next Generation Science Standards Science

MS-PS2-2 Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. Next Generation Science Standards Science

Objective

Students will be able to demonstrate understanding of of what mass is and how it affects force and laws of motion

Critical Questions

Why is force required to stop motion?

Bellringer

1. Go over quiz
2. My favorite "no" activity on quizzes

Engage

1. Each individual student goes to Phet simulation site to practice with different amount of force and other variables: http://bit.ly/2JOjggR
2. Answer questions http://bit.ly/34dJlzj

Assessment

Accommodations and Modifications

Notes

WED. SEP. 4TH

8th Grade Science

Changes in Motion, Force, and Direction Part I

Standards

MS-PS2 Motion and Stability: Forces and Interactions Next Generation Science Standards Science

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Objective

Students will be able to demonstrate understanding of of what mass is and how it affects force and laws of motion

Critical Questions

Why is force required to stop motion?

Bellringer

Force and Motion Video: https://www.youtube.com/watch?v=8iKhLGK7HGk

Engage

Lab investigation
on relationship between force, mass, and acceleration by changing the mass to an object

1. Obtain the mass of the car and record in the data table on the next page.
2. Securely tape the car to one end of the string.
3. Lay two meter sticks side by side on the surface such that there is just enough distance between them to allow the car to travel between them without touching the side of either meter stick. Tape the meter sticks to the surface in several places so they do not wobble when the car is released.

THU. SEP. 5TH

8th Grade Science

Changes in Motion, Force, and Direction Part II

Standards

MS-PS2 Motion and Stability: Forces and Interactions Next Generation Science Standards Science

MS-PS2-2 Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. Next Generation Science Standards Science

Objective

Students will be able to demonstrate understanding of of what mass is and how it affects force and laws of motion

Critical Questions

Why is force required to stop motion?

Bellringer

Silent game activity between partners discussing previous lab

Engage

Lab investigation
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FRI. SEP. 6TH

8th Grade Science

Rules, Procedures, & Expectations

Standards

Objective

Critical Questions

Bellringer

Engage

Writing assignment:
How does inertia explain why you should wear a seatbelt in a moving car?

- come up with three other examples that relate to Newton's first law, inertia,
- state the example, explain how it relates to Newton's first law
- how would this example be effected if Newton's law did not exist? (how would your life or world be different.

Assessment

Accommodations and Modifications

Notes

4. Tie a binder clip to the other end of the string.
5. Attach the .5 N bag to the string with the binder clip.
6. Set up Trial 1 by placing the car between the two meter sticks. Align string between the two meter sticks. The string with the attached bag hangs between the meter sticks. Pull the car backward so that the attached bag hangs freely and hangs in position just over the edge. The bag should not touch anything. The string between the bag and the car held in place should be taut.
7. Establish a frame of reference and reference point from which your group will observe the motion and release the car for all trials.
8. Release the car and observe the motion. Stop the car before it goes over the edge.
9. For Trial 2, repeat the experiment by increasing the mass of the car by using 50 g of modeling clay.
10. For Trial 3, repeat the experiment by increasing the mass of the car using 100 g of modeling clay.

Assessment

Accommodations and Modifications

Notes

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Assessment

Accommodations and Modifications

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