

Science Lesson

Instructor:

Time: 30 Minutes

4 Ball Experiment

Lesson Goal: Students will be able to identify and understand Newton's First Law of Motion, Inertia.

Materials: This is for one group.

1. Large table
2. 4 golf balls
3. Tennis ball

Performance Objectives:

1. Understand how Newton's First Law works.
2. Understand how Inertia plays a role in everyday life.

Teaching Activities:

1. Explain the fundamentals of Newton's Three Laws of Motion.
2. Set up experiment to allow students to experience Newton's First Law of Motion.
3. Discuss why the First Law of Motion is important to everyday life.
4. Have fun with the experiment.

Student Activities:

1. Understand Newton's Laws and their simplicities.
2. Differentiate the terminology of the laws of motion.
3. Participate in class discussion.
4. Do class experiment.
5. Ask questions as needed.

Reflections on the Lesson:

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4 Ball Experiment

Procedures:

1. Place three golf balls in a triangle at one end of the table.
2. Take the fourth golf ball and slowly roll it across the table at the group of three balls.
3. Reset the three golf balls in a triangle; roll the fourth ball faster at them.
4. Now repeat the experiment using the tennis ball as the rolling object.

Questions

1. What happened in #2 and why?
2. What happened in #3 and why?
3. What happened in #4 and why?
4. Was there any difference in the outcome? Why do think this happened?
5. Explain your finding in terms of Newton's First Law of Motion.