

Science Lesson

Instructor:

Time: 30 Minutes

Pushing the Limit

Lesson Goal: Students will be able to identify and understand Newton's Second Law of Motion, Force, Mass, and Acceleration.

Materials:

1. Large table turned upside down
2. Group members

Performance Objectives:

1. Understand how Newton's Second Law works.
2. Distinguish between Force, Mass, and Acceleration.
3. Understand how Force, Mass, and Acceleration are proportionate to each other.

Teaching Activities:

1. Explain the fundamentals of Newton's Three Laws of Motion.
2. Set up experiment to allow students to experience Newton's Second Law of Motion.
3. Discuss why the Second and Third Laws of Motion are 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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Procedures:

1. Turn the table upside down. CAREFULLY!!!!
2. Ask one group member to stand or kneel on the table.
3. Have another member push the table across the room.
4. Have a second member kneel on the table and repeat #3.
5. Add a third member to the table and repeat.
6. Start over from the beginning, only this time have two people push the table.

Questions

1. What happened in #3 and why?
2. What happened in #4 and why?
3. What happened in #5 and why?
4. What happened in #6 and why?
5. Explain your finding in terms of Newton's Second Law and relate the finding to the Force Formula, $F = M * A$.