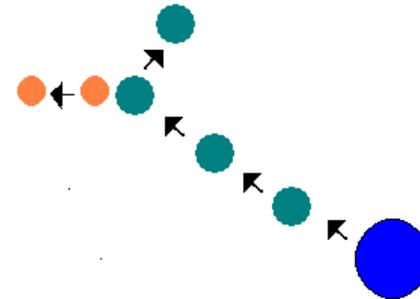


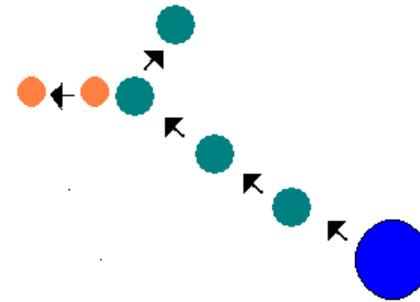
Explain Newton's Three Laws of Motion and give examples.



<p>1st LAW Law of Inertia</p>	<p>2nd LAW F=MA</p>	<p>3rd LAW Action-Reaction Law</p>

Explain Newton's Three Laws of Motion and give examples.

Use marbles or pool balls to demonstrate the three laws. Let the students play a game before discussing the application to Newton's Laws. 1st: The green ball did not move until a force acted on it (the shooter marble hit it.) It continued in its direction until it struck the orange marble. 2nd: The speed and direction of the shooter marble is related to the force applied to it by the player's thumb. The force of the green & orange



<p>1st LAW Law of Inertia</p>	<p>2nd LAW F=MA</p>	<p>3rd LAW Action-Reaction Law</p>
<p>An object will continue in its direction and velocity unless it is acted on by an outside force.</p> <p><i>A football stays on the ground until it is kicked. It continues in the same direction until it hits the goal post.</i></p>	<p>When a force acts on an object with mass, the object will accelerate in the direction of the force. The force is equal to the product of mass and acceleration.</p> <p><i>The harder the pitcher throws a baseball, the faster it will go.</i></p>	<p>For every force there is an opposite and equal force.</p> <p><i>When a bowling ball strikes a pin, both the ball and the pin change directions.</i></p>

Sports and games are an interesting way to study the laws of motion. Pick a sport, and describe how Newton's Laws are applied. Or, make a list of all the examples of each law you find in your daily life for one week.

F&M - 7 Information Pieces

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F&M 7

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F&M 7

To Make Your MatchCard more durable:

- 1. Put the student MatchCard and instructor MatchCard back to back in a clear plastic page protector.*
- 2. Laminate the information pieces. Or you can make them sturdier by covering the paper with transparent tape prior to cutting the pieces out.*
- 3. For more ideas on how to use the MatchCards, and for keeping a notebook for review, see the Instructor's Guide.*