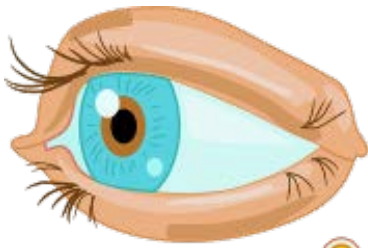


FORCES AND MOTION: HOW THINGS MOVE

Motion is the process of an object changing place or position.

Position refers to an object's location. The position of an object all depends on how a person is looking at the object and what it is being compared to, which is known as an object's relative position.



PREVIEW

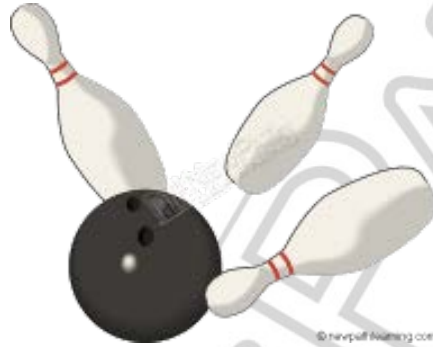
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Speed is how fast an object is moving or changing its position. When an object changes its position, it always changes position at a certain rate of speed. **Speed** can be at a fast rate or it can be at a slow rate. A **constant speed** is when an object moves at the same speed the whole time it moves. An object moving at a **variable speed** means that it changes its speed as it is moving.

Lesson Checkpoint: What is speed?

A **force** is a push or pull upon an object that causes it to change speed or direction. A **force** involves two or more object interacting with each other. **Contact forces** are forces that occur when you physically touch or make contact with another object.



Lesson Checkpoint: What is a force?

The **distance** an object is moved depends on how much force is used to move it. The **weight** of an object will move in its motion. H **weight** is on the object's **weight** are an object that is light in **weight**, you will need to apply **weight** to an object that has less **weight**.

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Friction is a force that works in the opposite direction of an object that is moving. The type of surface you are pushing an object on has a lot to do with the amount a friction against the object. If you are pushing a box on grass, the grass would apply more friction than if you were pushing the box on a smooth surface.

Lesson Checkpoint: What is friction?

Forces, such as pushes, pulls, and friction, can change the motion and speed of an object.

Magnetism is a force that does not need direct contact with an object in order to make that object change its position. **Magnetism** is the property of attracting certain metals. Magnets attract metals such as iron and steel. A magnet can move a steel paper clip with its magnetic force that pulls the steel paper clip towards the magnet.



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Gravity is an direct contact pull two objec

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being in at tries to , gravity

causes your pencil to fall to the ground. It is what keeps our bodies on the Earth which is why we do not float away when we are on Earth.



Lesson Checkpoint: What causes us to remain on the ground instead of floating away?