

Missouri State Standards for each Simple Machine activity:

Star wars video

Strand 7: Scientific Inquiry

1. *Science understanding is developed through the use of science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking*

Vacuum Packed Students

Strand 2: Properties and Principles of Force and Motion

2. *Forces affect motion*

A - Forces are classified as either contact (pushes, pulls, friction, buoyancy) or non-contact forces (gravity, magnetism), that can be described in terms of direction and magnitude

Bernoulli Bags

Strand 2: Properties and Principles of Force and Motion

1. *The motion of an object is described by its change in position relative to another object or point*

A - The motion of an object is described as a change in position, direction, and speed relative to another object (frame of reference)

Simple kitchen machines

Strand 1: Properties and Principles of Matter and Energy

2. *Energy has a source, can be stored, and can be transferred but is conserved within a system*

A - Forms of energy have a source, a means of transfer (work and heat), and a receiver

B - Mechanical energy comes from the motion (kinetic energy) and/or relative position (potential energy) of an object

F - Energy can be transferred within a system as the total amount of energy remains constant (i.e., Law of Conservation of Energy)

"A Car with Square Wheels? Yeah, right!"

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Think Tube

Strand 7: Scientific Inquiry

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Film Can Racer

Strand 2: Properties and Principles of Force and Motion

2. *Forces affect motion*

D - Newton's Laws of Motion explain the interaction of mass and forces, and are used to predict changes in motion

F - Work transfers energy into and out of a mechanical system

Spoon catapult

Strand 2: Properties and Principles of Force and Motion

2. *Forces affect motion*

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