Name _____

The Surprising World of Newton's Third Law

Multiple Choice Questions

1. What does Newton's third law of motion state?

a) Every object in motion stays in motion

b) For every action, there is an equal and opposite reaction

c) Force equals mass times acceleration

d) Objects fall at the same rate regardless of mass

2. Which of the following is an example of action and reaction forces?

a) Pushing a car uphill

b) Sitting in a chair

c) Balloon-powered car moving forward

d) Swinging on a swing set

3. When a rocket's engines expel high-speed gases backward, what type of force is generated?

a) Action force

b) Reaction force

c) Gravitational force

d) Buoyant force

4. What happens when you push the water backward with your arms while swimming?

a) The water pushes you forward with a reaction force.

b) The water pulls you downward with gravity.

c) The water becomes still and exerts no force.

d) The water pushes you backward.

5. How does Newton's third law apply to walking or running?

a) It doesn't apply to walking or running.

b) When you take a step, your foot pushes backward on the ground, creating an action force.

c) When you take a step, the ground pushes your foot backward.

d) Walking and running involve only action forces.