

Name: _____ Period: _____ Date: _____

Newton's third law of motion

- Watch the short video clip regarding Newton's 3rd Law of Motion.
- Based on what you read in chapter 4, write a brief paragraph describing why Newton's 3rd Law of Motion makes it difficult for astronauts to work in outer space.

A _____ is part of a mutual action, or _____, between two things.



Whenever one object exerts a force on a _____ second object, the second object exerts a force back on the first object.

These forces are _____ in strength and _____ in direction.

Another familiar way of stating it is:

For every _____, there is an equal and opposite

Neither of these forces can _____ without the other.

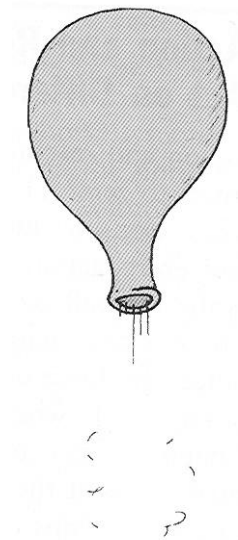
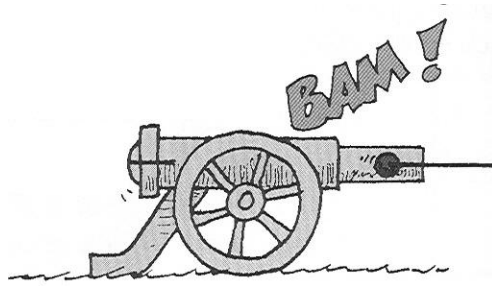
Three examples of Newton's third law:

1. _____

2. _____

3. _____

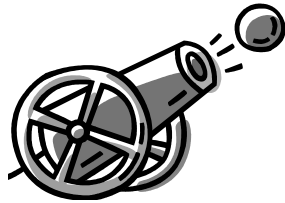
Discuss the pictures with a neighbor & write explanations related to Newton's third law. Include arrows that represent both the action force and the reaction force.



Why don't these forces cancel out?

Action forces and Reaction forces act on

_____.



The effect of these forces on each object depends on the object's _____.



Use Newton's second law of motion to describe why the acceleration on the cannon ball is so much greater than the acceleration on the cannon.

