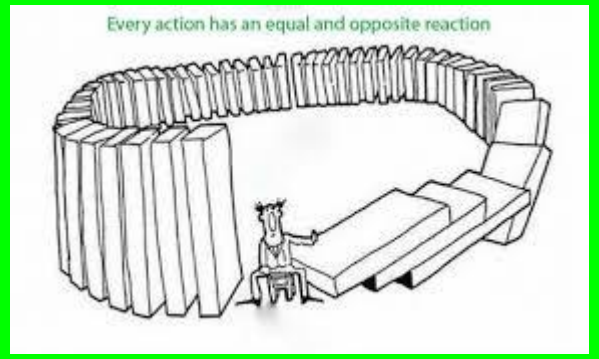
Newton's 3rd law of motion

For every action there is an equal and opposite reaction

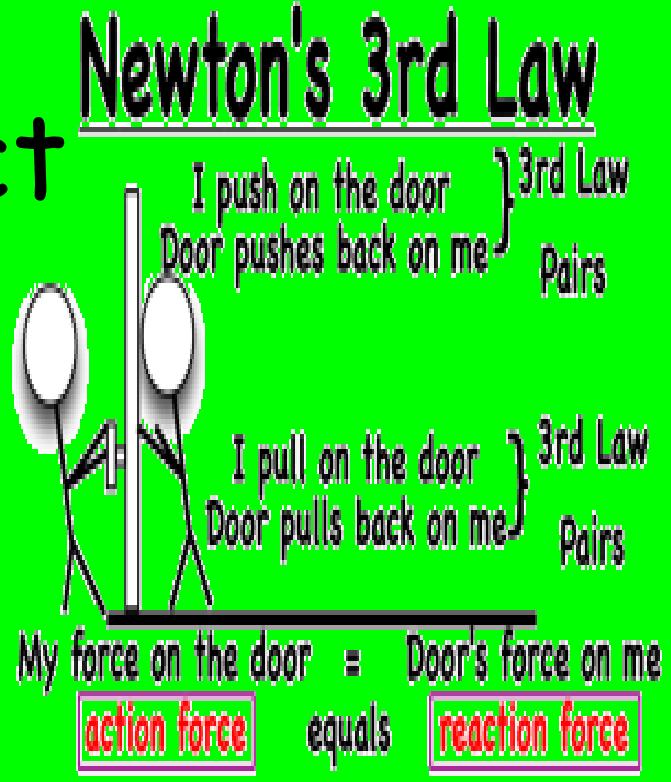


2. What is an action force?

Action Force is a force that exerts a force on another object

3. What is a reaction force?

A reaction Force is a force that exerts an equal and opposite force back on the object



4. Identify and label the action and reaction forces for the following 3rd Law examples

5. List 3 examples of Newton's 3rd Law.

1. Rowing a boat in the lake

2. A rocket launching into space

3. Pushing a skateboard down the sidewalk

6. Some sports make use of Newton's Third Law of Motion. Explain how pushing off of the starting blocks is an example of 3rd law.

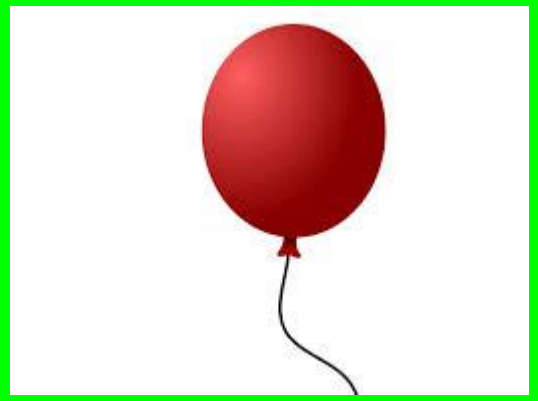
The swimmers feet push back on the block and the block pushes back on the swimmer making them move forward (the opposite direction of the force)

7. Explain how the actual movement in the water is an example of 3rd law.

You push back on the water and it pushes you forward

8. Using Newton's third law, describe how a space shuttle is an example of Newton's 3rd law. Label the action and reaction forces with arrows on the picture below.

9. How is a balloon being released an example of Newton's 3rd Law? Label the action and reaction forces on picture below.



10. Press your hand against the edge of a table. Notice how your hand becomes distorted. Now press harder. Explain what is happening according to Newton's Third.

Your hand pushes down on the table (action force) and the table pushes back on your hand (reaction force)

11. How do actions and reactions in a moving system relate to forces and acceleration?

The action force causes a reaction force that will cause the object to accelerate

12. Draw A PICTURE below that represents Newton's 3rd Law. Label the action and reaction forces.