

- F. An object can speed up, slow down, or turn in the direction of the net force when unbalanced forces act on it.

DISCUSSION QUESTION:

The size of air resistance force depends on what two variables? *Shape of an object and its speed*

Section 3 Newton's Third Law

- A. Newton's third law of motion states that forces always act in equal but opposite pairs; for every action there is an equal and opposite reaction.
- B. Action-reaction forces are always the same size but are in opposite directions and act on different objects.
1. When the mass of one object is considerably larger than the mass of another object, the action-reaction force is not noticeable.
 2. Air and water exert action-reaction forces with objects such as hands or canoe paddles.
 3. A rocket launches due to the equal but opposite forces of the burning fuel.

DISCUSSION QUESTION:

What does Newton's third law of motion state? *Forces always act in equal but opposite pairs.*