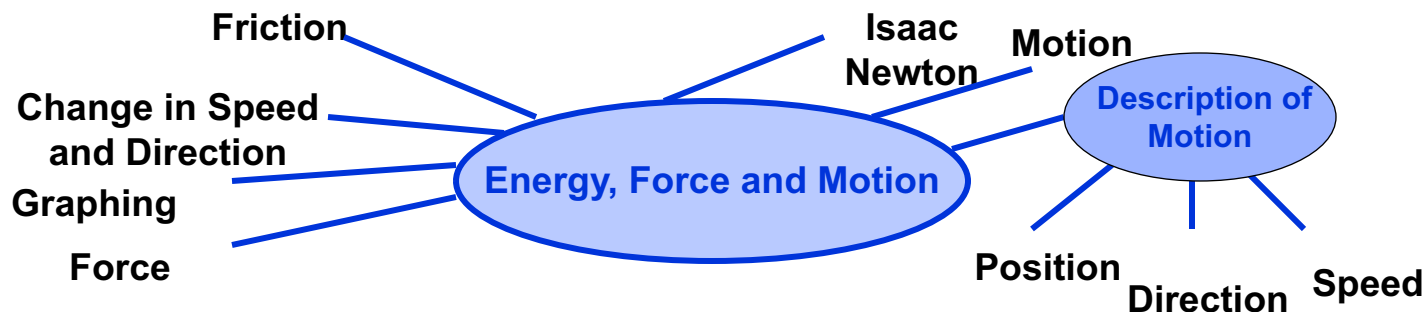


# SCIENCE

## GRADE EIGHT – ENERGY, FORCE AND MOTION



### Vocabulary:

All 6-8 Process Vocabulary plus:

- Energy
- Energy Transformation
- Force
- Inertia
- Kinetic Energy
- Momentum
- Potential Energy
- Simple Machine
- Speed
- Work

### Essential Understandings:

- Changes in speed or direction of motion are caused by forces.
- If a force acts towards a single center, the object's path may curve into an orbit around the center.
- Friction affects motion.
- Changes in speed or direction of motion are caused by forces.
- The greater the force, the greater the change in direction.
- An unbalanced force acting on an object changes its speed or direction or both.
- Math can be used to determine average speed.
- Motion can be measured and represented on a graph.
- The motion of an object can be described by its position, direction of motion and speed.
- An object being pulled toward the center has force acting on it.
- Isaac Newton.
- Whenever one thing exerts a force on another, an equal amount of force is exerted back on it.
- The motion of an object is always judged with respect to some other object or point.
- An object that is not being subjected to a force will continue to move at a constant speed and in a straight line.