Physics - Grades Nine Through Twelve - Motion and Forces

1. Newton’s laws predict the motion of most objects. As a basis for understanding this concept:

   e. Students know the relationship between the universal law of gravitation and the effect of gravity on an object at the surface of Earth.

Grade Eight - Focus on Physical Science - Forces

2. Unbalanced forces cause changes in velocity. As a basis for understanding this concept:

   a. Students know a force has both direction and magnitude.

   b. Students know when an object is subject to two or more forces at once, the result is the cumulative effect of all the forces.

   g. Students know the role of gravity in forming and maintaining the shapes of planets, stars, and the solar system

All Grades - Investigation and Experimentation

Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations.