

Sixth Grade Recommended Concepts: SCIENCE

Since sixth grade is often considered “middle school” in traditional public schools, the Science Standards presented by the Colorado Department of Education are not broken out by grade level after 5th grade. Therefore, below are skills/concepts students should be exposed to in a sixth-grade science curriculum. Notice that most of the content is related to Earth Science. At CP, our junior high science curriculum focuses on life science and physical science. Therefore, a comprehensive introduction to Earth Science and corresponding skills/understandings will help prepare your student for science at CP.

Recommended Concepts for Sixth Grade Science

1. Understanding of the three different types of rocks—sedimentary, metamorphic, and igneous—and how they are formed. Rocks are made of mixtures of minerals.
2. Understanding of what a mineral is? For example, there are elements that are true of all minerals: naturally occurring, can form crystals (distinctive chemical structure), pure substance (not a mixture), and a solid.
3. Understanding of the rock cycle (how one type of rock can turn into another type of rock through natural earth processes).
4. Understanding of how fossils are formed and that they are found in sedimentary rocks.
5. Understanding that igneous rocks are the rocks that form crystals (extrusive and intrusive rocks).
6. Understanding of the layers of the Earth (inner core, outer core, mantle, and crust), including the temperature and conditions of each layer, especially the mantle.
7. Understanding that the lithosphere is the upper mantle and the crust together.
8. Understanding that the crust is broken into plates that rub against each other and cause movement: Plate Tectonics.
9. Be able to plot a list of volcanoes and earthquakes on a world map using latitude and longitude.
10. Outline the three areas of high earthquake and volcanic activity: Pacific Ring of Fire, Mediterranean Belt, and Mid-Atlantic Ridge.
11. Know how a subduction zone, transverse boundary, and divergent zones behave at the edges of plates. Give real life examples of each type of boundary.
12. Understand how the lowest areas in the ocean are formed (the trenches).
13. Know there are three main types of volcanoes: Shield Volcano, Composite, and Cinder Cone. Where would you find each one and how do they behave?
14. Understand there are two types of lava: Pahoehoe and Aa.
15. Know that the Richter Scale is used to measure earthquakes.