Montana Science

# Grade 5

Adopted 2016

## Physical Science

1. **Develop a model to communicate that matter is made of particles too small to be seen.** PS.5.1
2. **Measure and graph quantities to provide evidence that the total mass of matter is conserved regardless of the type of change that occurs when heating, cooling, or mixing substances.** PS.5.2
3. **Observe and record qualitative and quantitative evidence to support identification of materials based on their properties.** PS.5.3
4. **Conduct an investigation that produces quantitative and qualitative data to analyze whether the mixing of two or more substances results in new substances.** PS.5.4
5. **Use models to describe that energy in animals' food was once energy from the sun.** PS.5.5
6. **Support an argument that the gravitational force exerted by Earth on objects is directed toward the center of the Earth.** PS.5.6

## Life Science

1. **Support an argument that plants get the materials they need for growth chiefly from air and water.** LS.5.1
2. **Develop and critique a model to describe the movement of matter among plants, animals, decomposers, and the environment.** LS.5.2

## Earth and Space Science

1. **Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, or atmosphere interact.** ESS.5.1
2. **Graph and explain the proportion and quantities of water and fresh water in various natural and human-made reservoirs to provide evidence about the distribution of water on Earth.** ESS.5.2
3. **Obtain and combine information from various sources about ways individual communities use science ideas to protect the Earth's resources, environment, and systems and describe examples of how American Indians use scientific knowledge and practices to maintain relationships with the natural world.** ESS.5.3

4. **Use evidence or models to support the claim that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.** ESS.5.4

5. **Graph the daily changes in the length, shape, and direction of shadows; lengths of day and night; and the seasonal appearance of select stars to communicate the patterns of the Earth's movement and describe how astronomical knowledge is used by American Indians.** ESS.5.5