



# Learning Targets for Science

# Grade 6

School District of Marshfield

## **A. Science Inquiry**

- A.6.1 Identify questions to investigate**
- A.6.2 Use a variety of resources and equipment to carry out scientific investigation**
- A.6.3 Distinguish between observation, interpret data, and form conclusions based on those observations**
- A.6.4 Defend and explain the validity of the investigation to others**
- A.6.5 Raise further questions to be answered**

## **B. The Universe and Its Stars**

- B.6.1 Identify patterns of apparent motion of the sun, moon, and stars in the sky and understand that motion can be observed, described, predicted and explained with models**
- B.6.2 Define the scientific theory explaining the universe began with a period of extreme and rapid expansion known as the Big Bang Theory**

## **C. Earth and the Solar System**

- C.6.1 Illustrate how the solar system consists of the sun and a collection of objects, including planets, their moons, and asteroids that are held in orbit around the sun by its gravitational pull on them**
- C.6.2 Understand how the model of solar system explains tides, eclipses of the sun and moon, and the motion of the planets in the sky relative to stars**
- C.6.3 Understand the Earth's spin is fixed in direction but tilted relative to its orbit around the sun and that seasons are a result of this tilt**

## **D. The History of Planet Earth**

- D.6.1 Interpret the geological time scale**

- D.6.2 Identify major historical events including formation of mountain chains, and ocean basins**
- D.6.3 Explain the evolution and extinction of organisms as a result of volcanic eruptions, massive glaciation, and the development of water sheds.**
- D.6.4 Analyze rock strata and the fossil record**

#### **E. Earth Materials and Systems**

- E.6.1 Understand and conclude all earth processes are the result of energy flowing and matter cycles within and among the planet's systems**
- E.6.2 Identify the sun as the main source of Earth's energy**
- E.6.3 Identify physical changes in the earth resulting from the energy released within**
- E.6.4 Show the Earth's system's interactions and how they have affected the history and shaped the future**
- E.6.5 Understand the earth's continual physical changes are the result of plate tectonics, earthquakes, volcanos, and erosive forces which have shaped earth's physical history and will determine its future**
- E.6.6 Identify weathering and erosion caused by water's movement which changes land surface features**

#### **F. Plate Tectonics and Large-Scale System Interactions**

- F.6.1 Demonstrate plate tectonic theory explains the past, current, and future movement of the rocks at earth's surface**
- F.6.2 Explain plate movement resulting from the interior layers of the earth are responsible for continental and ocean floor features**

#### **G. Natural Resources**

- G.6.1 Explain human's dependence on Earth's resources**
- G.6.2 Identify renewable and non-renewable resources**

#### **H. Natural Hazard**

- H.6.1 Compare natural hazards such as volcanic eruptions, severe weather, earthquakes, and tsunamis, to destructive human behavior**

## **I. Human Impacts on Earth Systems**

- I.6.1 Understand that human activities positively or negatively impact and sometimes damage or destroy natural habitats, causing the extinction of species**
- I.6.2 Understand as human population consumption increases so does negative impact on the earth unless conservation activities are practiced**
- I.6.3 Understand human behavior has an impact on earth's ecosystem and contributes to global warming**