



# Learning Targets for Science

## Grade 5

School District of Marshfield

### **A. Science Connections & B. Nature of Science**

- A.B.5.1** Know that although the same scientific investigation may give slightly different results when it is carried out by different persons, or at different times or places, the general evidence collected from the investigation should be replicable by others
- A.B.5.2** Know that good scientific explanations are based on evidence(observations) and scientific knowledge
- A.B.5.3** Know that scientists make the results of their investigation public; they describe the investigations in ways that enable others to repeat the investigations
- A.B.5.4.** Know that scientists review and ask questions about the results of other scientists' work

### **C. Scientific Inquiry**

- C.5.1** Know that scientific investigations involve asking and answering a question and comparing the answer to what scientists already know about the world
- C.5.2** Know that scientists use different investigations depending on the questions they are trying to answer
- C.5.3** Plan and conduct simple investigations
- C.5.4** Use appropriate tools and simple equipment to gather scientific data and extend the senses
- C.5.5** Know that different people may interpret the same set of observations differently

### **D. Physical Science**

- D.5.1** Understand that all matter is made of atoms (proton, electron, neutron, and nucleus)
- D.5.2** Know that atoms are constantly in motion, electrons move around the nucleus in path shells (or energy levels)
- D.5.3** Know that elements have atoms of only one kind, having the same number of protons

- D.5.4 Know that the periodic table organizes elements with common properties (atomic symbol and atomic number)**
- D.5.5 Know matter can be described by mixtures and solutions**
- D.5.6 Know the substances can be classified by their physical and chemical properties (freezing point, melting point, evaporation, condensation, and solubility)**
- D.5.7 Know matter has characteristic properties (density, boiling point, freezing point, solubility, mass and weight)**
- D.5.8 Know that matter has different states (solid, liquid, gas, and plasma) and that each state has distinct physical properties**
- D.5.9 Know mass of a material remains constant whether it is together, in parts, or in different states**
- D.5.10 Know the difference between molecules and compounds and know common compounds and formulas; water H<sub>2</sub>O, salt NaCl, and carbon dioxide CO<sub>2</sub>**
- D.5.11 Know common atom chemical symbols**

## **E. Earth Science**

- E.5.1 Know how weather and the water cycle are connected**
- E.5.2 Identify the effect temperature, air pressure, and humidity have on weather patterns**
- E.5.3 Know the layers of the atmosphere**
- E.5.4 Identify the various clouds and combinations (stratus, cumulus, and cirrus)**
- E.5.5 Know instruments used to measure weather (barometer, rain gauge, hygrometer, wind sock, anemometer, weather vane and thermometer)**
- E.5.6 Identify weather factors and their effects on weather (air masses and fronts)**
- E.5.7 Identify the elements that affect a regions weather and climate patterns (wind belts)**
- E.5.8 Know how to prepare for severe weather (hurricanes, tornadoes, winter storms, and floods)**
- E.5.9 Identify the topography of the ocean floor**
- E.5.10 Know the parts of a wave**
- E.5.11 Know the resources available from oceans (e.g. kelp, and sea salt)**

## **F. Life-Environmental Sciences**

- F.5.1 Know humans change ecosystems (land, water, and air)**

**F.5.2 Know the similarities and differences of animal classifications**

**F.5.3 Identify and explain the classification systems of living things (6-kingdoms)**

**F.5.4 Know that animals are classified as invertebrates and vertebrates**

**G. Application & H. Social-Personal Perspectives**

**G.H.5.1 Understand what makes someone a bully (BFB)**

**G.H.5.2 Know what drugs do to the body (Drug Defense)**

**G.H.5.3 Understand the changes of puberty (HGD)**