

# Science Curriculum Map: 5th Grade

## [Preamble to Fifth Grade Science](#)

NC Standard Course of Study Performance Standards					
Key Areas of Focus for Science					
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Living Organisms	Evolution and Genetics	Ecosystems	Forces and Motion	Weather	Matter and Energy
Pacing of Units: <a href="#">1-Person</a> , <a href="#">2-Person Team</a> , <a href="#">3-Person Team</a>					
5.L.1 5.L.1.1 5.L.1.2	5.L.3 5.L.3.1 5.L.3.2	5.L.2 5.L.2.1 5.L.2.2 5.L.2.3	5.P.1 5.P.1.1 5.P.1.2 5.P.1.3 5.P.1.4	5.E.1 5.E.1.1 5.E.1.2 5.E.1.3 5.P.2.1	5.P.2 5.P.2.2 5.P.2.3 5.P.3 5.P.3.1 5.P.3.2
NC Essential Standards for Science					
<p><b>Life Science (L)</b></p> <p><b>Structure and Functions of Living Organisms</b></p> <p><b>5.L.1 Understand how structures and systems of organisms (to include the human body) perform functions necessary for life.</b></p> <p>1.1 Explain why some organisms are capable of surviving as a single cell while others require many cells that are specialized to survive.</p> <p>1.2 Compare the major systems of the human body (digestive, respiratory, circulatory, muscular, skeletal, and cardiovascular) in terms of their functions necessary for life.</p> <p><b>Ecosystems</b></p> <p><b>5.L.2 Understand the interdependence of plants and animals with their ecosystem.</b></p> <p>2.1 Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.</p> <p>2.2 Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).</p> <p>2.3 Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.</p> <p><b>Evolution and Genetics</b></p> <p><b>5.L.3 Understand why organisms differ from or are similar to their parents based on the characteristics of the organism.</b></p> <p>3.1 Explain why organisms differ from or are similar to their parents based on the characteristics of the organism.</p> <p>3.2 Give examples of likenesses that are inherited and some that are not.</p>					

### **Earth Science (E)**

#### **Weather**

##### **5.E.1 Understand weather patterns and phenomena, making connections to the weather in a particular place and time.**

- 1.1 Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.
- 1.2 Predict upcoming weather events from weather data collected through observation and measurements.
- 1.3 Explain how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.

### **Physical Science (P)**

#### **Forces and Motion**

##### **5.P.1 Understand force, motion and the relationship between them.**

- 1.1 Explain how factors such as gravity, friction, and change in mass affect the motion of objects.
- 1.2 Infer the motion of objects in terms of how far they travel in a certain amount of time and the direction in which they travel.
- 1.3 Illustrate the motion of an object using a graph to show a change in position over a period of time.
- 1.4 Predict the effect of a given force or a change in mass on the motion of an object.

#### **Matter: Properties and Change**

##### **5.P.2 Understand the interactions of matter and energy and the changes that occur.**

- 2.1 Explain how the sun's energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation and runoff).
- 2.2 Compare the weight of an object to the sum of the weight of its parts before and after an interaction.
- 2.3 Summarize properties of original materials, and the new material(s) formed, to demonstrate that a change has occurred.

#### **Energy: Conservation and Transfer**

##### **5.P.3 Explain how the properties of some materials change as a result of heating and cooling.**

- 3.1 Explain the effects of the transfer of heat (either by direct contact or at a distance) that occurs between objects at different temperatures. (conduction, convection or radiation)
- 3.2 Explain how heating and cooling affect some materials and how this relates to their purpose and practical applications.