



# Elementary School Teaching and Learning

## 2022-2023 Scope and Sequence

### Science – Grade 5

<h2>LIFE SCIENCE</h2> <p>Units are not taught in the order listed. They are based on the Science Kit Rotation Schedule.</p>	<h3>OVERVIEW</h3> <p>In Life Science, fifth-grade students will study living organisms. They will understand how structures and systems of organisms perform functions necessary for life. They will focus on the interconnectedness between the major systems of the human body. Students will learn about traits that are inherited or acquired. They will understand why organisms differ from or are similar to their parents based on the characteristics of the organism. Students will also understand the interdependence of plants and animals with their ecosystem.</p>							
	<h3>ASSESSMENTS</h3> <table border="1"> <thead> <tr> <th>ASSESSMENT WINDOW</th> <th>ASSESSMENT NAME</th> </tr> </thead> <tbody> <tr> <td>Group 1 April 24-May 5, 2023 April 17-28, 2023</td> <td>NC Check-In Life Science CASE 21 Life Science</td> </tr> <tr> <td>Group 2 Oct. 24-Nov. 4, 2022 November 1-18, 2022</td> <td>NC Check-In Life Science CASE 21 Life Science</td> </tr> <tr> <td>Group 3 February 6-17, 2023 February 1-17, 2023</td> <td>NC Check-In Life Science CASE 21 Life Science</td> </tr> </tbody> </table>	ASSESSMENT WINDOW	ASSESSMENT NAME	Group 1 April 24-May 5, 2023 April 17-28, 2023	NC Check-In Life Science CASE 21 Life Science	Group 2 Oct. 24-Nov. 4, 2022 November 1-18, 2022	NC Check-In Life Science CASE 21 Life Science	Group 3 February 6-17, 2023 February 1-17, 2023
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\*Please see the assessment description at the bottom of this document.

UNIT	UNIT DURATION	PARENT/FAMILY RESOURCES	NORTH CAROLINA STANDARDS
Structures and Functions of Living Organisms	Approximately 18 days	<a href="#">Study Jams</a>	<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>5.L.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>5.L.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>
Evolution and Genetics	Approximately 9 days	<a href="#">Study Jams</a>	<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>5.L.3.1 Explain why organisms differ from or are similar to their parents based on the characteristics of the organism.</p> <p>5.L.3.2 Give examples of likenesses that are inherited and some that are not.</p>
Ecosystems	Approximately 18 days	<a href="#">Study Jams</a>	<p><b>5.L.2 Understand the interdependence of plants and animals with their ecosystem.</b></p> <p>5.L.2.1 Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.</p> <p>5.L.2.2 Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).</p> <p>5.L.2.3 Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.</p>



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<b>PHYSICAL SCIENCE</b>	<b>OVERVIEW</b>
	In Physical Science, fifth-grade students will investigate and understand force, motion, and the relationship between them. They will understand the interactions of matter and energy and the changes that occur. Students will also explain how the properties of some materials change as a result of heating and cooling.
<b>ASSESSMENTS</b>	
<b>ASSESSMENT WINDOW</b>	<b>ASSESSMENT NAME</b>
Group 1 February 6-17, 2023 February 1-17, 2023	NC Check-In Physical Science CASE 21 Physical Science
Group 2 April 24-May 5, 2023 April 17-28, 2023	NC Check-In Physical Science CASE 21 Physical Science
Group 3 Oct. 24-Nov. 4, 2022 November 1-18, 2022	NC Check-In Physical Science CASE 21 Physical Science

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<b>UNIT</b>	<b>UNIT DURATION</b>	<b>PARENT/FAMILY RESOURCES</b>	<b>NORTH CAROLINA STANDARDS</b>
Forces and Motion	Approximately 15 days	<ul style="list-style-type: none"> <li>• <a href="#">Study Jams</a></li> <li>• <a href="#">PBS Learning Media</a></li> <li>• <a href="#">Smithsonian Science Resources</a></li> <li>• <a href="#">DK Learning</a></li> </ul>	<b>5.P.1 Understand force, motion and the relationship between them.</b> 5.P.1.1 Explain how factors such as gravity, friction, and change in mass affect the motion of objects. 5.P.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. 5.P.1.3 Illustrate the motion of an object using a graph to show a change in position over a period of time. 5.P.1.4 Predict the effect of a given force or a change in mass on the motion of an object.
Matter: Properties and Change	Approximately 15 days	<a href="#">Study Jams</a>	<b>5.P.2 Understand the interactions of matter and energy and the changes that occur.</b> 5.P.2.1 Explain how the sun's energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation and runoff). 5.P.2.2 Compare the weight of an object to the sum of the weight of its parts before and after an interaction. 5.P.2.3 Summarize properties of original materials, and the new material(s) formed, to demonstrate that a change has occurred.
Energy: Conservation and Transfer	Approximately 15 days	<a href="#">Study Jams</a>	<b>5.P.3 Explain how the properties of some materials change as a result of heating and cooling.</b> 5.P.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) 5.P.3.2 Explain how heating and cooling affect some materials and how this relates to their purpose and practical applications.



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### Science – Grade 5

EARTH SCIENCE	OVERVIEW	
	In Earth Science, fifth-grade students will observe weather conditions and analyze seasonal patterns to make predictions about local and global weather systems. They will explain the stages of the water cycle and how the sun's energy impacts the process.	
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ASSESSMENT WINDOW	ASSESSMENT NAME	
Group 1 Oct. 24-Nov. 4, 2022 November 1-18, 2022	NC Check-In Earth Science CASE 21 Earth Science	
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UNIT	UNIT DURATION	PARENT/FAMILY RESOURCES	NORTH CAROLINA STANDARDS
Earth Systems, Structures, and Processes	Approximately 45 days	<a href="#">Study Jams</a>	<p><b>5.E.1 Understand weather patterns and phenomena, making connections to the weather in a particular place and time.</b></p> <p>5.E.1.1 Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.</p> <p>5.E.1.2 Predict upcoming weather events from weather data collected through observation and measurements.</p> <p>5.E.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.</p>

#### NC Check-Ins Science

NC Check-Ins are interim assessments aligned to North Carolina grade-level content standards in science for grade 5 and developed by the North Carolina Department of Public Instruction (NCDPI). Each NC Science Check-In is constructed around the NC Essential Standards for Science Grade 5: Physical Science, Earth Science, and Life Science.

Group 1	Group 2	Group 3
Anderson Sunset Park Carolina Beach <b>Gregory</b> Snipes Freeman <b>Lake Forest</b> <b>Eaton</b> <b>Codington</b>	<b>Bellamy</b> Blair Forest Hills Ogden Williams Wrightsboro <b>Wrightsville Beach</b> Holly Tree College Road Early Childhood Center	Alderman Bradley Creek Castle Hayne Murrayville Parsley <b>Pine Valley</b> College Park Winter Park Porters Neck

\*Schools in **bold** print will take the NC Check-In Assessments.