

# SCIENCE

## Third Grade



### Third Grade Science Curriculum Overview

The [Indiana Academic Standards](#) define what students should know, understand, and be able to do at grade level beginning in kindergarten and progressing through grade twelve. These standards serve as the foundation to our curriculum in Noblesville Schools but are not a curriculum on their own. The Indiana Academic Standards are supported through grade-level curriculum maps and a selection of curriculum materials to support these maps. These curriculum maps and materials are aligned to the Indiana Academic standards while also meeting the needs of all learners. Therefore, the Noblesville Schools' curriculum is constantly undergoing periodic and systematic analysis and revision.

Indiana academic standards for science are organized around four content areas- physical science, life science, earth and space science and engineering. The content area standards and the types of learning experiences they provide to students in third grade are described below.

In third grade, science is explored through analyzing evidence, constructing arguments and developing solutions. Engineering standards are explored throughout the school year as a part of the Project Lead the Way curriculum and integrated into other science units.

On the pages that follow, age-appropriate concepts are listed for each standard. Skills for thinking, inquiry and participation are integrated throughout.

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The [Grade 3 Indiana Academic Standards for Science](#) serve as the foundation to our curriculum for science instruction in Noblesville Schools. These standards are supported through grade-level curriculum maps and materials for all learners.

### Units of Study

Table 1: Third Grade Science Units of Study

Science Units of Study	Timeframe	Learning Outcomes Learners will...	Reflective Questions that may be included within the unit:	Lesson Examples
<b>Unit 1: Life Science:</b> Animals	Quarter 1	<ol style="list-style-type: none"> <li>1. Construct an argument using evidence to claim that some animals will survive by being part of a group.</li> <li>2. Plants and animals work together to survive.</li> </ol>	<ol style="list-style-type: none"> <li>1. How do animals survive in their environment?</li> <li>2. How do animals work together?</li> <li>3. How do plants and animals work together?</li> </ol>	Coming 2022-23 school year
<b>Unit 2: Life Science:</b> Plants	Quarter 1	<ol style="list-style-type: none"> <li>1. Analyze genetic evidence of plants.</li> <li>2. Plan and conduct an investigation to discover the needs of plants.</li> <li>3. Construct an argument about internal and external functions needed for survival.</li> <li>4. Determine the similarities and differences of plants.</li> </ol>	<ol style="list-style-type: none"> <li>1. How do the offspring of plants and animals have similarities and differences from their parents, and how do those variations allow offspring to reproduce and survive?</li> <li>2. How do patterns affect the survival and reproduction of plants and animals?</li> <li>3. Why is each plant structure important?</li> </ol>	Coming 2022 - 2023 school year
<b>Unit 3: Physical Science:</b> Forces	Quarter 2	<ol style="list-style-type: none"> <li>1. Observe and describe objects at motion and at rest.</li> <li>2. Explain balanced and unbalanced forces.</li> <li>3. Develop a plan to make forces balanced or unbalanced.</li> </ol>	<ol style="list-style-type: none"> <li>4. How do different forces interact to affect motion?</li> <li>5. How does changing one force affect the movement of an object?</li> </ol>	Coming 2022 - 2023 school year

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<b>Unit 4: Physical Science:</b> Simple Machines	Quarter 2	<ol style="list-style-type: none"> <li>1. Create simple machines to make jobs easier.</li> <li>2. Identify simple machines in use and in complex machines.</li> <li>3. Describe how simple machines work.</li> </ol>	<ol style="list-style-type: none"> <li>1. How are simple machines used in everyday life?</li> <li>2. How would using simple machine make a job easier and more efficient?</li> <li>3. How can simple machines help us solve problems?</li> </ol>	Coming 2022 - 2023 school year
<b>Unit 5: Physical Science:</b> Sound	Quarter 3	<ol style="list-style-type: none"> <li>1. Generate sound energy using a variety of materials.</li> <li>2. Recognize the physical properties of sound.</li> <li>3. Investigate how sound travels through different forms of matter.</li> </ol>	<ol style="list-style-type: none"> <li>1. How is sound manipulated? (created, changed, moved)</li> <li>2. Why do we manipulate sound?</li> <li>3. Why is sound important?</li> <li>4. How does sound interact with objects?</li> </ol>	Coming 2022 - 2023 school year
<b>Unit 6: Earth and Space Science:</b> Rocks & Minerals	Quarter 3	<ol style="list-style-type: none"> <li>1. Observe rock and mineral characteristics and properties.</li> <li>2. Identifying and classifying rocks and mineral.</li> <li>3. Determining mineral makeup of rocks and how fossils were formed.</li> <li>4. Providing evidence of how the earth and environment was long ago.</li> </ol>	<ol style="list-style-type: none"> <li>1. What can fossils tell us about our past?</li> <li>2. How can minerals and rocks be classified?</li> <li>3. How can we use natural resources</li> </ol>	Coming 2022 - 2023 school year



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<b>Unit 7: Earth and Space Science:</b> Weather	Quarter 4	<ol style="list-style-type: none"> <li>1. Develop solutions that could be used to reduce the impact of weather hazards.</li> <li>2. Reduce the risks associated with weather.</li> <li>3. Obtain weather patterns from the different regions of the United States.</li> </ol>	<ol style="list-style-type: none"> <li>1. How does weather affect how people live, work, and play?</li> <li>2. How does understanding weather patterns help reduce the impact of weather-related hazards?</li> <li>3. Why do different regions have different weather patterns?</li> </ol>	Coming 2022 - 2023 school year
<b>Engineering</b>	Throughout the year	<ol style="list-style-type: none"> <li>1. Identify a real-world problem and recognize an appropriate tool to solve it.</li> <li>2. Investigate what problems people face daily.</li> </ol>	<ol style="list-style-type: none"> <li>1. What problems do people face daily?</li> <li>2. What tools can be used to collect data and solve problems?</li> </ol>	Coming 2022 - 2023 school year