

TeachEngineering invites you to propose an original, hands-on Grade 2 activity that aligns to specific engineering-focused NGSS Performance Expectations. Your creative STEM activity could enrich our free engineering collection that reaches over 3.5 million educators annually. We look forward to your imaginative ideas! You can even get creative and submit more than one proposal. Go to [teachengr.link/k2proposal](https://teachengr.link/k2proposal) for proposal submission guidelines, schedule, and compensation details.

## Performance Expectations Structure and Properties of Matter

### Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. 2-PS1-1

- **LITERACY** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). **W.2.7**
- **LITERACY** Recall information from experiences or gather information from provided sources to answer a question. **W.2.8**

### Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. 2-PS1-2

- **MATH** Reason abstractly and quantitatively. **MP.2**
- **MATH** Model with mathematics. **MP.4**
- **MATH** Use appropriate tools strategically. **MP.5**
- **MATH** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. **2.MD.D.10**
- **LITERACY** Describe how reasons support specific points the author makes in a text. **RI.2.8**
- **LITERACY** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). **W.2.7**
- **LITERACY** Recall information from experiences or gather information from provided sources to answer a question. **W.2.8**

### Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. 2-PS1-3

- **LITERACY** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). **W.2.7**
- **LITERACY** Recall information from experiences or gather information from provided sources to answer a question. **W.2.8**

### Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. 2-PS1-4

- **LITERACY** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. **RI.2.1**
- **LITERACY** Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. **RI.2.3**
- **LITERACY** Describe how reasons support specific points the author makes in a text. **RI.2.8**
- **LITERACY** Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section. **W.2.1**

## Performance Expectations Interdependent Relationships in Ecosystems

### Plan and conduct an investigation to determine if plants need sunlight and water to grow. 2-LS2-1

- **MATH** Reason abstractly and quantitatively. **MP.2**
- **MATH** Model with mathematics. **MP.4**
- **MATH** Use appropriate tools strategically. **MP.5**

### Plan and conduct an investigation to determine if plants need sunlight and water to grow. 2-LS2-1

- **LITERACY** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). **W.2.7**
- **LITERACY** Recall information from experiences or gather information from provided sources to answer a question. **W.2.8**

### Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants. 2-LS2-2

- **MATH** Model with mathematics. **MP.4**

### Performance Expectations Interdependent Relationships in Ecosystems, Continued

- **MATH** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems. **2.MD.D.10**
- **LITERACY** Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. **SL.2.5**

### Make observations of plants and animals to compare the diversity of life in different habitats. 2-LS4-1

- **MATH** Reason abstractly and quantitatively. **MP.2**
- **MATH** Model with mathematics. **MP.4**
- **MATH** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems. **2.MD.D.10**
- **LITERACY** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). **W.2.7**
- **LITERACY** Recall information from experiences or gather information from provided sources to answer a question. **W.2.8**

### Performance Expectations Earth's Systems: Processes that Shape the Earth

#### Use information from several sources to provide evidence that Earth events can occur quickly or slowly. 2-ESS1-1

- **MATH** Model with mathematics. **MP.4**
- **MATH** Understand place value. **2.NBT.A**
- **LITERACY** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. **RI.2.1**
- **LITERACY** Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. **RI.2.3**
- **LITERACY** With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. **W.2.6**
- **LITERACY** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). **W.2.7**
- **LITERACY** Recall information from experiences or gather information from provided sources to answer a question. **W.2.8**
- **LITERACY** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. **SL.2.2**

#### Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. 2-ESS2-1

- **MATH** Reason abstractly and quantitatively. **MP.2**
- **MATH** Model with mathematics. **MP.4**
- **MATH** Use appropriate tools strategically. **MP.5**
- **MATH** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. **2.MD.B.5**
- **LITERACY** Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. **RI.2.3**
- **LITERACY** Compare and contrast the most important points presented by two texts on the same topic. **RI.2.9**

#### Develop a model to represent the shapes and kinds of land and bodies of water in an area. 2-ESS2-2

- **MATH** Reason abstractly and quantitatively. **MP.2**
- **MATH** Model with mathematics. **MP.4**
- **MATH** Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. **2.NBT.A.3**
- **LITERACY** Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. **SL.2.5**

#### Obtain information to identify where water is found on Earth and that it can be solid or liquid. 2-ESS2-3

- **LITERACY** With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. **W.2.6**
- **LITERACY** Recall information from experiences or gather information from provided sources to answer a question. **W.2.8**