



## Grade 2

### 3.3.2.B Earth and Space Sciences: Earth's Systems

**Students who demonstrate understanding can** *compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.*

**Clarifying Statement:** Examples of solutions could include different designs of dikes and windbreaks to hold back wind and water, and different designs for using shrubs, grass, and trees to hold back the land.

**Assessment Boundary:** N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
<b>Constructing Explanations and Designing Solutions</b> Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. <ul style="list-style-type: none"> <li>Generate and/or compare multiple solutions to a problem.</li> </ul>	<b>Earth Materials and Systems</b> <ul style="list-style-type: none"> <li>Wind and water can change the shape of the land.</li> </ul>	<b>Stability and Change</b> <ul style="list-style-type: none"> <li>Things may change slowly or rapidly.</li> </ul> <hr/> <b>Connections to Engineering, Technology, and Applications of Science</b> <b>Influence of Engineering, Technology, and Science on Society and the Natural World</b> <ul style="list-style-type: none"> <li>Developing and using technology has impacts on the natural world.</li> </ul> <hr/> <b>Connections to Nature of Science</b> <b>Science Addresses Questions About the Natural and Material World</b> <ul style="list-style-type: none"> <li>Scientists study the natural and material world.</li> </ul>

**Pennsylvania Context:** N/A

**PA Career Ready Skills:** Identify consequences of a decision to oneself and others prior to action.

### Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
<b>Agriculture (AFNR)</b>	CS.01.02.02.c: Evaluate the importance of technology use and how it impacts AFNR systems.
<b>Science, Environmental Literacy and Sustainability (NAAEE)</b>	K-4 Strand 2.3.A. Human-environment interactions: Learners identify ways that people depend on, change, and are affected by the environment.



Standard Source	Possible Connections to Other Standard(s) or Practice(s)
PA Core Standards: ELA	CC.1.2.2.C: Describe the connection between a series of events, concepts, or steps in a procedure within a text. CC.1.5.2.A: Participate in collaborative conversations with peers and adults in small and larger groups.
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. MP.4: Model with mathematics. MP.5: Use appropriate tools strategically. CC.2.3.2.A.1: Analyze and draw two and three-dimensional shapes having specified attributes.
PA Standards: Social Studies	5.2.2.B: Identify a problem and a probable solution.
Educational Technology (ISTE)	1.4. Innovative Designer: Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
Technology and Engineering (ITEEA)	STEL-7E: Illustrate that there are different solutions to a design and that none are perfect.