### Science and Engineering Practices

#### Developing and Using Models
Modeling 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.

- Develop a model to represent patterns in the natural world. (2-ESS2-2)

#### Constructing Explanations and Designing Solutions
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.

- Compare multiple solutions to a problem. (2-ESS2-1)

#### Obtaining, Evaluating, and Communicating Information
Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.

- Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question. (2-ESS2-3)

### Disciplinary Core Ideas

#### ESS2.A: Earth Materials and Systems
- Wind and water can change the shape of the land. (2-ESS2-2)
- Water is found on Earth and that it can be solid or liquid. (2-ESS2-3)

#### ESS2.B: Plate Tectonics and Large-Scale System Interactions
- Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2)

#### ESS2.C: The Roles of Water in Earth's Surface Processes
- Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)

#### ETS1.C: Optimizing the Design Solution
- Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (Secondary to 2-ESS2-1)

### Crosscutting Concepts

#### Patterns
- Patterns in the natural world can be observed. (2-ESS2-2, 2-ESS2-3)

#### Stability and Change
- Things may change slowly or rapidly. (2-ESS2-1)

### Connections to Nature of Science
- Scientists study the natural and material world. (2-ESS2-1)

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The performance expectations above were developed using the following elements from the NRC document A Framework for K–12 Science Education: Practices, Cross-Cutting Concepts, and Core Ideas. Integrated and reprinted with permission from the National Academy of Sciences.