Next Generation Science Standards DCI Arrangements

Second Grade

Matter and its Interactions

A Structure and Properties of Matter PS1.A

- a Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. 2-PS1-1
- b Different properties are suited to different purposes. 2- PS1-2
- c A great variety of objects can be built up from a small set of pieces. 2-PS1-3

B Chemical Reactions PS1.B

- a Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not 2-PS1-4

Interactions, Energy, and Dynamics

A Interdependent Relationships in Ecosystems LS2.A

- a Plants depend on water and light to grow 2-LS2-1
- b Plants depend on animals for pollination or to move their seeds around. 2-LS2-2

B Developing Possible Solutions ETS1.B

- a Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. ETS1.B-1

Biological Evolution: Unity and Diversity

D Biodiversity and Humans LS4.D

- a There are many different kinds of living things in any area, and they exist in different places on land and in water 2-LS4-1

Earth's Place in the Universe

C The History of Planet Earth ESS1.C

- a Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe 2-ESS1-1

Earth's Systems

A Earth Materials and Systems ESS2.B

- a Wind and water can change the shape of the land. 2-ESS2- 2

B Plate Tectonics and Large-Scale System Interactions ESS2.C

- a Maps show where things are located. One can map the shapes and kinds of land and water in any area. 2-ESS2-3

C The Roles of Water in Earth's Surface Processes ESS2.C

a Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. 2-ESS2-3

C Optimizing the Design Solution ETS1.C

a Because there is always more than one possible solution to a problem, it is useful to compare and test designs ETS1.C-1

Engineering Design

A Defining and Delimiting Engineering Problems ETS1.A

a A situation that people want to change or create can be approached as a problem to be solved through engineering. K-2-ETS1-1.1

b Asking questions, making observations, and gathering information are helpful in thinking about problems. K-2-ETS1-1.2

c Before beginning to design a solution, it is important to clearly understand the problem. K-2-ETS1-1.3

B Developing Possible Solutions ETS1.B

a Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. K-2-ETS1.4

C Optimizing the Design Solution ETS1.C

a Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K-2-ETS1.5