Unit 1: Weather and Climate **Instructional Days: 15**

In this unit of study, students organize and use data to describe typical weather conditions expected during a particular season. By applying their understanding of weather-related hazards, students are able to make a claim about the merit of a design solution that reduces the impacts of such hazards. The crosscutting concepts of *patterns, cause and effect*, and the *influence of engineering, technology, and science on society and the natural world* are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in a*sking questions and defining problems, analyzing and interpreting data, engaging in argument from evidence*, and *obtaining, evaluating, and communicating information*. Students are also expected to use these practices to demonstrate understanding of the core ideas.

This unit is based on 3-#WW2-1, 3-ESS2-2, 3-ESS3-1, and 3-5-ETS1-1.

Unit 2: Force and Motion **Instructional Days: 15**

In this unit of study, students determine the effects of balanced and unbalanced forces on the motion of an object. The crosscutting concepts of *patterns and cause and effect* are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in *planning and carrying out investigations*. Students are also expected to use these practices to demonstrate understanding of the core ideas.

This unit is based on 3-PS2-1 and 3-PS2-2.

Unit 3: Electrical and Magnetic Forces **Instructional Days: 15**

In this unit of study, students determine the effects of balanced and unbalanced forces on the motion of an object and the cause-and-effect relationships of electrical or magnetic interactions to define a simple design problem that can be solved with magnets. The crosscutting concept of *cause and effect*, and the *interdependence of science, engineering, and technology, and the influence of engineering, technology, and science on society and the natural world* are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in *asking questions and defining problems*. Students are also expected to use these practices to demonstrate understanding of the core ideas.

This unit is based on 3-PS2-3, 3-PS2-4, and 3-5-ETS1-1.

Unit 4: Traits **Instructional Days: 15**

In this unit of study, students acquire an understanding that organisms have different inherited traits and that the environment can also affect the traits that an organism develops. The crosscutting concepts of *patterns* and *cause and effec*t are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency *in analyzing and interpreting data, constructing explanations*, and *designing solutions*. Students are also expected to use these practices to demonstrate understanding of the core ideas.

This unit is based on 3-LS3-1 and 3-LS3-2.

Unit 5: Continuing the Cycle **Instructional Days: 10**

In this unit of study, students develop an understanding of the similarities and differences in organisms' life cycles. In addition, students use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. The crosscutting concepts of *patterns* and *cause and effect* are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in *developing and using models and constructing explanations and designing solutions*. Students are also expected to use these practices to demonstrate understanding of the core ideas.

This unit is based on 3-LS1-1 and 3-LS4-2.

Unit 6: Organisms and the Environment **Instructional Days: 15**

In this unit of study, students develop an understanding of the idea that when the environment changes, some organisms survive and reproduce, some move to new locations, some move into the transformed environment, and some die. The crosscutting concepts of *cause and effect* and the *interdependence of science, engineering, and technology* are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in *engaging in argument from evidence*. Students are also expected to use this practice to demonstrate understanding of the core ideas.

This unit is based on 3-LS2-1 and 3-LS4-3.

Unit 7: Using Evidence to Understand Change in Environments **Instructional Days: 15**

In this unit of study, students develop an understanding of the types of organisms that lived long ago and also about the nature of their environments. Students develop an understanding of the idea that when the environment changes, some organisms survive and reproduce, some move to new locations, some move into the transformed environment, and some die. The crosscutting concepts of *systems and system models*; *scale, proportion, and quantity*; and *the influence of engineering, technology, and science on society and the natural world* are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in *asking questions and defining problems*, *analyzing and interpreting data*, and *engaging in argument from evidence*. Students are also expected to use these practices to demonstrate understanding of the core ideas.

This unit is based on 3-LS4-1, 3-LS4-4, and 3-5-ETS1-1.

Note: *The number of instructional days is an estimate based on the information available at this time. 1 day equals approximately 42 minutes of seat time. Teachers are strongly encouraged to review the entire unit of study carefully and collaboratively to determine whether adjustments to this estimate need to be made.*