Kindergarten

• **SIP.00.11** Make purposeful observation of the natural world using the appropriate senses.
• **SRS.00.11** Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
• **P.FM.00.11** Describe the position of an object.
• **L.OL.00.11** Identify that living things have basic needs.
• **E.SE.00.11** Identify earth materials that occur in nature (rocks, sand, soil, and water).
• **S.CN.00.01** Explore and use language to communicate with a variety of audiences and for different purposes including problem-solving, explaining, looking for solutions, constructing relationships, and expressing courtesies.
• **S.CN.00.02** Speak clearly and audibly in complete, coherent sentences and use sound effects or illustrations for dramatic effect in narrative and informational presentations.
• **S.DS.00.01** Engage in substantive conversations, remaining focused on subject matter, with interchanges beginning to build on prior responses in literature discussions, paired conversations, or other interactions.
• **L.CN.00.01** Understand and follow one- and two-step directions.
• **L.CN.00.02** Ask appropriate questions during a presentation or report.
• **L.CN.00.03** Listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings; listen to each other, interact, and respond appropriately.
• **L.RP.00.01** Listen to or view knowledgeably and discuss a variety of genre.

First Grade

• **L.OL.E.01.13** Identify the needs of animals
• **L.OL.E.01.21** Describe the life cycle of animals including the following stages: egg, young adult; egg, larva, pupa adult.
• **S.CN.01.02** Explore and use language to communicate with a variety of audiences and for different purposes including making requests, solving
problems, looking for solutions, constructing relationships, and expressing courtesies.

- **S.CN.01.03** Speak effectively maintaining appropriate posture, eye contact, and position using props such as photographs or illustrations in narrative and informational presentations.

- **S.DS.01.01** Engage in substantive conversations, remaining focused on subject matter, with interchanges building on prior responses in literature discussions, paired conversations, or other interactions.

- **L.CN.01.01** Understand, restate and follow two-step directions.

- **L.CN.01.02** Ask appropriate questions for clarification and understanding during a presentation or report.

- **L.CN.01.03** Listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings; listen to the comments of a peer and respond on topic adding a connected idea.

- **L.RP.01.01** Listen to or view knowledgeably and discuss a variety of genre.

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**Second Grade**

- **L.OL.E.1** Organisms have basic needs.

- **L.OL.02.14** Identify the needs of plants.

- **S.CN.02.02** Explore and use language to communicate effectively with a variety of audiences and for different purposes including questions and answers, discussions, and social interactions.

- **S.CN.02.03** Speak effectively adopting appropriate tone of voice and intonation patterns in narrative and informational presentations.

- **S.DS.02.01** Engage in substantive conversations, remaining focused on subject matter, with interchanges building on prior responses in book discussions, peer conferencing, or other interactions.

- **L.CN.02.01** Understand, restate and follow three- and four-step directions.

- **L.CN.02.02** Ask appropriate questions for clarification and understanding during a presentation or report.

- **L.CN.02.03** Listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings; listen to the comments of peers and respond on topic adding a connected idea.

- **L.RP.02.01** Listen to or view knowledgeably and discuss a variety of genre.
Third Grade

- **S.RS.E.1** Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history and within society.

- **L.OL.E.3** Structures and Functions—Organisms have different structures that serve different functions in growth, survival and reproduction.

- **L.OL.E.4** Classification—Organisms can be classified on the basis of observable characteristics.

- **L.EV.E.1** Environmental Adaptation—Different kinds of organisms have characteristics that help them to live in different environments.

- **E.ES.E.4** Natural Resources—The supply of many natural resources is limited.

- **E.ES.E.5** Human Impact—Humans depend on their natural and constructed environment. Humans change environments in ways that are helpful and harmful for themselves and other organisms.

- **E.SE.E.1** Earth Materials—Earth materials that occur in nature include rocks, minerals, soils, water and the gases of the atmosphere. Some Earth materials have properties which sustain plant and animal life.

- **E. SE.E.2** Surface Changes—The surface of Earth changes. Some changes are due to slow processes, such as erosion and weathering and some changes are due to rapid processes, such as landslides, volcanic eruptions and earthquakes.

- **E.SE.E.3** Using Earth Materials—Some Earth materials have properties that make them useful either in their present form or designed and modified to solve human problems. They can enhance the quality of life as in the case of materials used for building or fuels used for heating and transportation.

- **S.DS.03.01** Engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.

- **L.CN.03.01** Ask substantive questions of the speaker that will provide additional elaboration and details.

- **L.CN.03.02** Listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.

- **L.RP.03.01** Listen to or view knowledgeably and discuss a variety of genre and compare their responses to those of their peers.

- **L.RP.03.05** Respond to and retell what a speaker said, paraphrasing and explaining the main idea, and then extend their response by connecting and relating it to personal experiences.
Fourth Grade

- **S.RS.E.1** Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history and within society.
- **L.OL.E.1** Life Requirements—Organisms have basic needs.
- **L.EC.E.1** Interactions—Organisms interact in various ways including providing food and shelter to one another. Some interactions are helpful; others are harmful to the organism and other organisms.
- **S.DS.04.01** Engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.
- **L.CN.04.01** Ask substantive questions of the speaker that will provide additional elaboration and details.
- **L.CN.04.02** Listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.
- **L.RP.04.04** Combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then giving an opinion orally).
- **L.RP.04.05** Respond to and summarize the major ideas and evidence presented in spoken messages and formal presentations.

Fifth Grade

- **S.RS.E.1** Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history and within society.
- **L.OL.M.4** Animals Systems—Multicellular organisms may have specialized systems that perform functions which serve the needs of the organism.
- **L.HE.M.1** Inherited and Acquired Traits—The characteristics of organisms are influenced by heredity and environment. For some characteristics, inheritance is more important; for other characteristics, interactions with the environment are more important.
- **L.EV.M.1** Species Adaptation and Survival—Species with certain traits are more likely than others to survive and have offspring in particular environments. When an environment changes, the advantage or disadvantage of the species’ characteristics can change. Extinction of a species occurs when
the environment changes and the characteristics of a species are insufficient to allow survival.

- **W.GN.05.03** Write a position piece that demonstrates understanding of central ideas and supporting details.
- **S.DS.05.01** Engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.
- **S.DS.05.04** Plan and deliver persuasive presentations or reports using an informational organizational pattern for a specific purpose (e.g., to persuade, describe, inform) that conveys and supports the point they want to make, while varying voice modulation, volume, and pace of speech to emphasize meaning.
- **L.CN.05.01** Ask substantive questions based on the argument(s) presented by a speaker when listening to or viewing a variety of presentations.
- **L.CN.05.02** Listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.
- **L.CN.05.03** Listen and view critically how verbal and non-verbal strategies enhance understanding of spoken messages and promote effective listening behaviors during a variety of class presentations.
- **L.CN.05.04** Recognize and analyze
- **L.RP.05.04** Combine skills to reveal strengthening literacy (e.g., viewing then analyzing in writing, listening then paraphrasing in writing).
- **L.RP.05.05** Respond to and go beyond the information given by a speaker, making inferences and drawing appropriate conclusions.

Sixth Grade

- **S.RS.E.1** Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision making and the application of science throughout history and within society.
- **L.OL.M.5** Producers, Consumers, and Decomposer
- **L.EC.M.1** Interactions of Organisms—Organisms of one species form a population. Populations of different organisms interact and form communities. Living communities and nonliving factors that interact with them form ecosystems.
- **L.EC.M.2** Relationships of Organisms—Two types of organisms may interact with one another in several ways: they may be in a producer/consumer/, predator/prey, or parasite/host relationship. Some organisms may scavenge or
decompose another. Relationship may be competitive or mutually beneficial. Some species have become so adapted to each other that neither could survive without the other.

- **L.EC.M.4** Environmental Impact of Organisms—All organisms (including humans) cause change in the environment where they live. Some of the changes are harmful to the organism or other organisms, whereas others are helpful.

- **E.SE.M.1** Soil—Soils consist of weathered rocks and decomposed organic materials from dead plants, animals, and bacteria. Soils are often found in layers with each having a different chemical composition and texture.

- **G1.2.1** Locate the major landforms, rivers (Amazon, Mississippi, Missouri, Colorado), and climate regions of the Western Hemisphere.

- **G1.3.3** Explain the different ways in which places are connected and how those connections demonstrate interdependence and accessibility.

- **G2.1.1** Describe the landform features and the climate of the region (within the Western or Eastern Hemispheres) under study.

- **G2.2.1** Describe the human characteristics of the region under study (including languages, religion, economic system, governmental system, cultural traditions).

- **G2.2.2** Explain that communities are affected positively or negatively by changes in technology.

- **G3.2.1** Explain how and why ecosystems differ as a consequence of differences in latitude, elevation, and human activities.

- **G3.2.2** Identify ecosystems and explain why some are more attractive for humans to use than are.

- **G4.2.1** List and describe the advantages and disadvantages of different technologies used to move people, products, and ideas throughout the world.

- **G4.4.1** Identify factors that contribute to conflict and cooperation between and among cultural groups (control/use of natural resources, power, wealth, and cultural diversity).

- **G5.1.1** Describe the environmental effects of human action on the atmosphere (air), biosphere (people, animals, and plants), lithosphere (soil), and hydrosphere (water) (e.g., changes in the tropical forest environments in Brazil, Peru, and Costa Rica).

- **G5.1.2** Describe how variations in technology affect human modifications of the landscape.

- **G5.1.3** Identify the ways in which human-induced changes in the physical environment in one place can cause changes in other places.
• **G5.2.1** Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change

• **G6.1.1** Contemporary Investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action.

• **E2.3.1** Describe the impact of governmental policy (sanctions, tariffs, treaties) on that country and on other countries that use its resources.

• **W.GN.06.02** Write a personal, persuasive, or comparative essay that includes organizational patterns supporting key ideas.

• **S.DS.06.01** Engage in interactive, extended discourse to socially construct meaning in book clubs, literature circles, partnerships, or other conversation protocols.

• **L.CN.06.02** Listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive); critically examine the verbal and non-verbal strategies during speeches and presentations.

• **L.RP.06.01** Listen to or view knowledgeably a variety of genre to summarize, take notes on key points, and ask clarifying questions.