

S1: Scientific Inquiry

The student demonstrates abilities necessary to do scientific inquiry and an understanding about scientific inquiry; that is, the student:

- S1a:** asks questions about objects, organisms, events, and relationships in the environment.
- S1b:** accesses, evaluates and uses information from a variety of sources.
- S1c:** plans, conducts and records simple investigations based upon the nature of the questions to be answered.
- S1d:** employs simple instruments such as rulers, magnifiers, and thermometers to systematically gather, record, analyze, and interpret data.
- S1e:** uses data to construct reasonable explanations and to make predictions.
- S1f:** reviews and asks questions about the reports and results of other scientists' work.
- S1g:** communicates findings and conclusions of investigations using scientific language and mathematics.

S2: History and Nature of Science

The student demonstrates an understanding of science as a human endeavor; and the history and nature of science; that is, the student:

- S2a:** recognizes that doing science requires varying human abilities, interest, and habits of mind (e.g., reasoning, insight, skill, creativity, flexibility, and skepticism).
- S2b:** demonstrates and models working alone or as a team member to share and critique new information.
- S2c:** explains developments throughout history that have impacted science as a career option.
- S2d:** explains how men and women in science have made contributions that impact the quality of life.

S3: Science in Personal and Social Perspectives

The student demonstrates an understanding of safety, types of resources, changes in environments, and science and technology in local challenges; that is, the student:

- S3a:** identifies the benefits and practices of appropriate personal safety, health, nutrition, and resource conservation.
- S3b:** identifies natural hazards in the environment.
- S3c:** recognizes that science and technology are used to identify ways to help solve social problems.

S4: Science and Technology

The student demonstrates an understanding about science and technology, and the nature of technological design; that is, the student:

- S4a:** recognizes and explains how specific tools, technology and inventions assist humans to work efficiently or live more conveniently.
- S4b:** explains how inventions and technology impact people and other living organisms.
- S4c:** explores/invents/designs possible solutions to an identified problem.

DoDEA Grade 4 Science Standards

S5: Physical Science

The student demonstrates a conceptual understanding of matter, motion, and energy; that is, the student:

S5a: compares and contrasts observable properties (i.e., size, weight, color) of matter, and the ability to react with other substances.

S5b: develops relationships between motion and applied forces.

S5c: contrasts electricity and magnetism as forms of energy.

S6: Life Science

The student demonstrates a conceptual understanding of organisms, and their environments; that is, the student:

S6a: distinguishes between plants and animals based on their structures and functions.

S6b: describes how the characteristics of organisms are inherited from their parents and developed from interactions with the environment.

S6c: develop simple food chains and food webs.

S7: Earth and Space Sciences

The student demonstrates a conceptual understanding of Earth materials, objects in the sky, and changes in Earth and sky; that is, the student:

S7a: examines fossils in relation to Earth materials.

S7b: demonstrates and describes how various types of weather impact materials on Earth.

S7c: compares and contrasts objects in the sky by describing motion, orbit, rotation, and gravitational forces of Earth, sun, and moon.