

Essential Academic Learning Requirements—Science

- 1. SYSTEMS: The student knows and applies scientific concepts and principles to understand the properties, structures, and changes in physical, earth/space, and living systems.**

To meet this standard, the student will:

- 1.1. Properties: Understand how properties are used to identify, describe, and categorize substances, materials, and objects, and how characteristics are used to categorize living things.
- 1.2. Structures: Understand how components, structures, organizations, and interconnections describe systems.
- 1.3. Changes: Understand how interactions within and among systems cause changes in matter and energy.

- 2. INQUIRY: The student knows and applies the skills, processes, and nature of scientific inquiry.**

To meet this standard, the student will:

- 2.1. Investigating Systems: Develop the knowledge and skills necessary to do scientific inquiry.
- 2.2. Nature of Science: Understand the nature of scientific inquiry.

- 3. APPLICATION: The student knows and applies science concepts and skills to develop solutions to human problems in societal contexts.**

To meet this standard, the student will:

- 3.1. Designing Solutions: Apply knowledge and skills of science and technology to design solutions to human problems.
- 3.2. Science, Technology, and Society: Analyze how science and technology are human endeavors, interrelated to each other, society, the workplace, and the environment.