

# Grade 2

Adopted 2018

## Scientific and Engineering Practices

- 1. The student will demonstrate an understanding of scientific and engineering practices by 2.1**
  - a. asking questions and defining problems 2.1.A
    - i. ask questions that can be investigated 2.1.A.I
    - ii. make predictions based on observations and prior experiences 2.1.A.II
    - iii. identify a simple problem that can be solved through the development of a new tool or improved object 2.1.A.III
  - b. planning and carrying out investigations 2.1.B
    - i. with guidance, plan and conduct simple investigations to produce data 2.1.B.I
    - ii. use appropriate tools to measure length, weight, and temperature of common objects using U.S. Customary units 2.1.B.II
    - iii. measure time intervals using proper tools 2.1.B.III
  - c. interpreting, analyzing, and evaluating data 2.1.C
    - i. organize and represent data in pictographs and bar graphs 2.1.C.I
    - ii. read and interpret data represented in pictographs and bar graphs 2.1.C.II
  - d. constructing and critiquing conclusions and explanations 2.1.D
    - i. make simple conclusions based on data or observations 2.1.D.I
    - ii. distinguish between opinion and evidence 2.1.D.II
    - iii. recognize unusual or unexpected results 2.1.D.III
  - e. developing and using models 2.1.E
    - i. use models to demonstrate simple phenomena and natural processes 2.1.E.I
  - f. obtaining, evaluating, and communicating information 2.1.F
    - i. communicate observations and data using simple graphs, drawings, numbers, speech, and/or writing 2.1.F.I

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## Force, Motion, and Energy

- 2. The student will investigate and understand that different types of forces may cause an object's motion to change. Key ideas include 2.2**
    - a. forces from direct contact can cause an object to move; 2.2.A
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**b. some forces, including gravity and magnetism, can cause objects to move from a distance; and** 2.2.B

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**c. forces have applications in our lives.** 2.2.C

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## Matter

**3. The student will investigate and understand that matter can exist in different phases. Key ideas include** 2.3

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**a. matter has mass and takes up space;** 2.3.A

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**b. solids, liquids, and gases have different characteristics; and** 2.3.B

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**c. heating and cooling can change the phases of matter.** 2.3.C

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## Living Systems and Processes

**4. The student will investigate and understand that plants and animals undergo a series of orderly changes as they grow and develop. Key ideas include** 2.4

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**a. animals have life cycles; and** 2.4.A

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**b. plants have life cycles.** 2.4.B

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**5. The student will investigate and understand that living things are part of a system. Key ideas include** 2.5

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**a. plants and animals are interdependent with their living and nonliving surroundings;** 2.5.A

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**b. an animal's habitat provides all of its basic needs; and** 2.5.B

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**c. habitats change over time due to many influences.** 2.5.C

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## Earth and Space Systems

**6. The student will investigate and understand that there are different types of weather on Earth. Key ideas include** 2.6

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**a. different types of weather have specific characteristics;** 2.6.A

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**b. measuring, recording, and interpreting weather data allows for identification of weather patterns; and** 2.6.B

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**c. tracking weather allows us to prepare for the weather and storms.** 2.6.C

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**7. The student will investigate and understand that weather patterns and seasonal changes affect plants, animals, and their surroundings. Key ideas include** 2.7

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**a. weather and seasonal changes affect the growth and behavior of living things;** 2.7.A

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**b. wind and weather can change the land; and** 2.7.B

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**c. changes can happen quickly or slowly over time. 2.7.C**

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**Earth Resources**

**8. The student will investigate and understand that plants are important natural resources. Key ideas include 2.8**

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**a. the availability of plant products affects the development of a geographic area; 2.8.A**

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**b. plants provide oxygen, homes, and food for many animals; and 2.8.B**

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**c. plants can help reduce the impact of wind and water. 2.8.C**

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