Maryland Early Learning Standards Birth – 8 Years

Science: 4 Years

Skills & Processes

1 **Students will demonstrate the thinking and acting inherent in the practice of science.** 1

A Constructing Knowledge 1.A

1 Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out. 1.A.1

B Applying Evidence and Reasoning 1.B

1 People are more likely to believe your ideas if you can give good reasons for them. 1.B.1

C Communicating Scientific Information 1.C

1 Ask, "How do you know?" in appropriate situations and attempt reasonable answers when others ask them the same question. 1.C.1

D Technology 1.D

1 Design and make things with simple tools and a variety of materials. 1.D.1

2 Practice identifying the parts of things and how one part connects to and affects another. 1.D.2

3 Examine a variety of physical models and describe what they teach about the real things they are meant to resemble. 1.D.3

Earth/Space

2 Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces and cycles, transfer of energy) of the environment, Earth, and the universe that occur over time. 2

- A Materials and Processes That Shape A Planet 2.A
- B Earth History 2.B
- C Plate Tectonics 2.C
- D Astronomy 2.D
- E Interactions of Hydrosphere and Atmosphere 2.E
  - 2 Describe the weather using observations. 2.E.2
- A Diversity of Life 2.A
  - 1 Observe a variety of familiar plants and animals to describe how they are alike and how they are different. 2.A.1
- B Cells 2.B
- C Genetics 2.C
  - 1 Observe, describe and compare different kinds of animals and their offspring. 2.C.1
- D Evolution 2.D
- E Flow of Matter and Energy 2.E
- F Ecology 2.F

Chemistry

3 Students will use scientific skills and processes to explain the composition, structure, and interactions of matter in order to support the predictability of structure and energy transformations. 3

- A Structure of Matter 3.A
  - 1 Use evidence from investigations to describe the observable properties of a variety of objects. 3.A.1
- B Conservation of Matter 3.B
- C States of Matter 3.C
- D Physical and Chemical Changes 3.D

Physics

4 Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur. 4

- A Mechanics 4.A
- B Thermodynamics 4.B
- C Electricity and Magnetism 4.C
- D Wave Interactions 4.D

Environmental Science

5 Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective. 5

- A Natural Resources and Human Needs 5.A
- B Environmental Issues 5.B