**MAREA Activity Science Core Curriculum Connections**

Practices for K-12 Science Classrooms

Asking questions and defining problems

Developing and using models

Planning and carrying out investigations

Analyzing and interpreting data

Using mathematics and computational thinking

Constructing explanations and designing solutions

Engaging in argument from evidence

Obtaining, evaluating, and communicating information

Crosscutting concepts

Patterns

Cause and effect: Mechanism and explanation

Scale, proportion, and quantity

Systems and system models

Energy and matter: Flows, cycles, and conservation

Structure and function

Stability and change

Core ideas in Physical Science

PS2: Motion and stability: forces and interactions

PS2.A: Forces and motion

PS2.B: Types of interaction

PS2.C: Stability and instability in physical systems

PS3: Energy

PS3.A: definitions of energy

PS3.B: Conservation of energy and energy transfer

PS3.C: relationship between energy and forces

PS4: Waves and their applications in technology and information transfer

PS4.A: Wave properties

PS4.B: Electromagnetic radiation

PS4.C: information technologies and instrumentation

Core ideas in the life sciences

LS1: From molecules to organisms: structures and processes

LS1.D: Information processing

Core ideas in Earth and space sciences

EES1: earth’s place in the universe

EES1.A: The universe and its stars

EES1.B: Earth and the solar system

Core ideas in engineering, technology, and applications of science

ETS1: Engineering design

ETS1.A: Defining and delimitating an engineering problem

ETS1.B: Developing possible solutions

ETS1.C: Optimizing the design solution

ETS2: Links among engineering, technology, science, and society

ETS2.A: Interdependence of science, engineering, and technology

ETS2.B: Influence of engineering, technology, and science on society and the natural world