G-E-T Middle School Curriculum
Align, Explore, Empower
Scope and Sequence
Grade 6 Science

Inquiry Skills	~throughout school year

We are dedicated to enhancing the inquiry skills of all learners that come through our district. The inquiry skills we value are basic process skills and integrated process skills. Basic process skills include skills such as observing, predicting, and classifying. While integrated process skills include developing hypotheses, interpreting data, and drawing conclusions. In 6th grade, students will develop these skills throughout the year at a level one.

Unit 1- Water and Atmosphere	~15 weeks

In this unit students will be introduced to Earth as the water planet. Students will learn how land, water, air and life interact to form a system and/or cycles on Earth. Also, they will learn how fresh water cycles on Earth and how the sun's energy affects Earth's atmosphere. Students will also learn the impact humans have on the Earth, and about the factors that affect climate change. This unit will give students a deeper understanding about water and the atmosphere.

Standards for Grade 6 Science

- ESS2-4 Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.
- ESS2-5 Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.
- ESS2-6 Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.
- ESS3-5 Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.
- PS3-3 Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.
- ESS3-1 Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

Unit 2 - Force and Motion	~14 weeks

In this unit students will be introduced to force and how it causes an object's motion to change, as well as the different forms energy can take. Students will also learn about the motion of objects and how they react to force; machines and work; energy conservation; heat; and electricity and magnetism. This unit will give students a deeper understanding about forces and energy.

Standards for Grade 6 Science

The students will:

- PS2-3. Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.
- PS2-5 Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.
- PS3-1 Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.
- PS2-1 Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.
- PS2-2 Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.
- PS3-1 Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.
- PS3-5 Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.
- PS3-2 Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.
- PS3-4 Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.

Unit 3 - Earth Surface	~4 weeks
This unit is the students will be introduced to Earth as a continually changing planet that is 4.6 billion years old whose rock record contains its history. Students will also learn how processes break down rock and shape the surface of the land and how scientists study Earth's past. This is an introductory unit for when they get into 8th grade and learn about Earth's structures.	

Standards for Grade 6 Science
The students will: This unit is being constructed due to the shortened weeks in the 2020-21 school year.

Blue = Mastery Level Standard
Red = Content Knowledge Standard