

6th Grade Science

1st Grading Period (8 weeks)

Unit 1: Scientific Investigation and Reasoning

8/17-8/21 - **Building Classroom Environment/Relationships Using Science** (I understand safe lab practices, how to use specific science tools, how to document observations.)

8/24-8/28 - **Scientific Investigations** (I understand how to develop scientific investigations, how to collect data, and how to communicate scientific findings)

8/31-9/4 - **Scientific Investigations** (I understand how to develop scientific investigations, how to collect data, and how to communicate scientific findings)

Progression: Throughout this unit, the learners will develop the skills necessary to implement and conduct their own investigation and critically think about their data and results. They will also be able to communicate their conclusions based on evidence.

Unit 2: Matter

9/8-9/11 - **Focus: Elements vs. Compounds** (I understand how to represent elements and compounds.)

9/14-9/18 - **Focus: Metals/Nonmetals/Metalloids and Earth's Common Elements** (I understand how to differentiate between metals/nonmetals/metalloids and I know Earth's common elements.)

9/21-9/25 - **Focus: Density** (I understand how to calculate density to identify an unknown substance)

9/28-10/2 - **Focus: Physical and Chemical Changes** (I understand the differences between a physical and a chemical change)

10/5-10/8 - **Focus: Physical and Chemical Changes/Matter Show What You Know** (I understand the differences between a physical and a chemical change. I can show what I have learned during the Matter Unit.)

Standards: 6.1A, **6.2A**, 6.2B, 6.2C, **6.2D**, **6.2E**, 6.4A, 6.4B, 6.5A, 6.5B, **6.5C**, **6.6A**, **6.6B**

Progression: Throughout this unit, the learners will understand the difference between an element and a compound. They will then begin to understand that different elements have different properties and that a limited number of the many known elements comprise the largest portion of solid Earth, living matter, oceans, and the atmosphere. The learners will then begin to investigate the differences between physical and chemical changes.

2nd Grading Period (9 weeks)

Unit 3: Energy

10/13-10/16 - **Focus Potential and Kinetic Energy** (I understand the difference between potential and kinetic energy)

10/19-10/23 - **Focus Forms of Energy and Energy Transformations** (I can differentiate between the different forms of energy and I can demonstrate energy transformations)

10/26-10/30 - **Focus Thermal Energy Transfer** (I understand how thermal energy moves in a predictable pattern.)

11/2-11/6 - **Focus Thermal Energy Transfer** (I understand how thermal energy transfers through conduction, convection, and radiation.)

11/9-11/13 - **Focus Renewable and Nonrenewable Energy Sources** (I can research and discuss the advantages and disadvantages of using different renewable and nonrenewable energy sources.)

11/16-11/20 - **Review and Show What You Know**

Standards: 6.7, **6.8A**, **6.9A**, 6.9B, 6.9C

Progression: Throughout this unit, the learners will understand the difference between potential and kinetic energy. They will then review the different forms of energy and learn how those types of energies transfer (energy is not created or destroyed). The learners will then focus on thermal energy and how thermal energy transfers. They will end this unit by researching and discussing the different renewable and nonrenewable energy resources.

Unit 4: Force and Motion

11/30-12/4 **Focus Balanced and Unbalanced Forces** (I understand how an object's position can change due to balanced and unbalanced forces.)

12/7-12/11 **Focus Calculating and Graphing Speed** (I understand how to calculate speed using distance and time measurements.)

12/14-12/18 **Focus Calculating and Graphing Speed** (I understand how to measure and graph changes in motion.)

Standards: 6.8B, **6.8C**, **6.8D**

Progression: Throughout this unit, the learners will start by focusing how object's positions can be changed by balanced and unbalanced forces. They will then learn how to calculate speed. After they understand how to calculate speed, they will then learn how to read, interpret, and create speed graphs.

6th Grade Science

3rd Grading Period (9.5 weeks)

Unit 4 Energy:

1/6-1/8- **Focus Inclined Planes** (I understand how inclined planes can change force needed to move an object.)

Standards: 6.8E

Progression: To wrap up this unit the learners will understand how inclined planes can be used to change the amount of force needed to move an object.

Unit 5 Solar System:

1/11-1/15 - **Focus Space Exploration** (I can)

1/19-1/22 - **Focus Gravity** (I can)

1/25-1/29- **Focus Our Solar System** (I can)

Standards:

Progression:

Unit 6 Earth:

2/1-2/5 - **Focus Structure of the Earth** (I can)

2/8-2/26- **Focus Plate Tectonics**(I can)

3/1-3/5 - **Focus Plate Tectonics**(I can)

3/8-3/12 - **Focus Rock Cycle**(I can)

Standards: 6.1A, 6.2A

Progression: Learners will continue

4th Grading Period (9.5 weeks)

Unit 6 Earth:

3/22-3/26 - **Focus Minerals**(I can)

Unit 7 Organisms and Environments:

3/29-4/1 - **Biotic and Abiotic** (I can)

4/6-4/9 - **Using a Microscope** (I can)

4/12-4/16 - **Prokaryotic or Eukaryotic** (I can)

4/19-4/23 - **Focus Taxonomy** (I can)

4/26-4/30 - **Focus Levels of Organization within an Ecosystem** (I can)

5/3-5/7- **Focus Review and Show What You Know** (I can)

END OF YEAR

5/10-5/14 **STAAR WEEK** - (I can)

5/17-5/26 - **FLAST WEEK OF SCHOOL** (I can)

Progression: Learners will continue