

ROBERTSON COUNTY BOARD OF EDUCATION

MASTERY GUIDE

SIXTH GRADE

SCIENCE

FIRST NINE WEEKS

Scientific Method

Continue to develop the students' use and understanding of the scientific method.

1. Problem
2. Hypothesis
3. Materials
4. Procedure
5. Data – use graphs, charts, tables
6. Results
7. Conclusion

Interactions Between Living Things and Their Environment

- 6.2.1 Describe commensal, parasitic, and mutualistic relationships.
- 6.2.2a. Distinguish between predators and prey.
- 6.2.2b. Describe the impact of competition among species within an ecosystem.
- 6.2.2c. Interpret how humans impact ecosystems.

Food Production and Energy for Life

- 6.3.1a. Classify organisms as producers, consumers, and decomposers.
- 6.3.1b. Demonstrate interrelationships among organisms in a food chain or food web.

Diversity and Adaptation Among Living Things

- 6.5.1 Explain how the relationship between the form and function of an organism is associated with survival in a given environment.

Biological Change

- 6.6.1a. Differentiate between the relative age of fossils in a sedimentary rock diagram.
- 6.6.1b. Determine the geologic age of an object using a diagram or a time line.
- 6.6.2 Identify additional lines of scientific evidence, other than fossils, that support the idea of change over time.
- 6.6.3a. Predict how a specific environmental change might affect the survival of a plant or animal species.
- 6.6.3b. Evaluate possible causes of extinction.

Earth and Its Place in the Universe (Introduction)

- 6.7.3b. Use a model to explain how the tilt of the earth and its revolution around the sun causes the seasons.
- 6.7.4b. Relate tidal conditions with the position of the moon.

SECOND NINE WEEKS

Scientific Method

Continue to develop the students' use and understanding of the scientific method.

1. Problem
2. Hypothesis
3. Materials
4. Procedure
5. Data – use graphs, charts, tables
6. Results
7. Conclusion

Earth and Its Place in the Universe

- 6.7.1 Differentiate among the components of the universe.
- 6.7.2 Construct a model of the solar system.
- 6.7.3a. Illustrate the positions of the earth, moon, and sun during solar and lunar eclipses.
- 6.7.4a. Identify the pull of gravity as the force that hold the planets and their moon in orbit.

THIRD NINE WEEKS

Scientific Method

Continue to develop the students' use and understanding of the scientific method.

1. Problem
2. Hypothesis
3. Materials
4. Procedure
5. Data – use graphs, charts, tables
6. Results
7. Conclusion

Earth and Its Place in the Universe

- 6.7.5 Make use of available resources (Internet, library, interviews, etc.) to research careers associated with technology and space exploration.

Energy

- 6.14.2a. Describe how heat flows between objects.
- 6.14.2b. Explain the difference between the Fahrenheit and Celsius temperature scales.
- 6.14.4a. Distinguish among heat, chemical, electrical, and mechanical energy.
- 6.14.4b. Understand the law of conservation of energy.

FOURTH NINE WEEKS

Scientific Method

Continue to develop the students' use and understanding of the scientific method.

1. Problem
2. Hypothesis
3. Materials
4. Procedure
5. Data – use graphs, charts, tables
6. Results
7. Conclusion

Energy

- 6.14.1a. Recognize the basic parts of a wave.
- 6.14.1b. Distinguish among wavelength, frequency, and amplitude.
- 6.1.4.1c. Explain how the properties of a sound are related to wavelength, frequency, and amplitude.
- 6.14.3 Explain how magnets are involved in the production of electricity.
- 6.14.5a. Describe the electromagnetic spectrum.
- 6.14.5b. Distinguish among refraction, reflection, and absorption of light.
- 6.14.5c. Compare incandescent and fluorescent light with respect to production and efficiency.