Week 3: Designing the Mission

LESSON 8: WHERE IS THE BEST PLACE TO MEASURE?
GRADE LEVEL: 3-5
LENGTH: 1 DAY

TEKS/SES:

Science

Grade 3
3.2.A 3.2.D 3.2.F 3.3.A 3.3.D 3.4.A 3.5.A 3.6.B 3.7.C 3.8.A

Grade 4
4.2.A 4.2.D 4.2.F 4.3.A 4.3.D 4.4.A 4.5.A 4.6.6 4.7.A

Grade 5
5.2.A 5.2.B 5.2.C 5.2.D 5.2.F 5.3.D 5.4.A 5.5.A 5.6.D

Full text versions of these TEKS are available at http://ritter.tea.state.tx.us/rules/tac/chapter112/ch112a.html

Math

Grade 3
3.11.A 3.14.A 3.14.B 3.14.C 3.14.D 3.15.A

Grade 4
4.11.A 4.14.A 4.14.B 4.14.C 4.14.D 4.15.A

Grade 5
5.14.A 5.14.B 5.14.C 5.14.D 5.15.A

Full text versions of these TEKS are available at http://ritter.tea.state.tx.us/rules/tac/chapter111/ch111a.html

Language Arts

Grade 3
3.4.B 3.27 3.31

Grade 4
4.2.A 4.2.B 4.25 4.29

Grade 5
5.2.a 5.2.B 5.25.A 5.29

Full text versions of these TEKS are available at http://ritter.tea.state.tx.us/rules/tac/chapter110/ch110a.html

NATIONAL STANDARDS

Science

Science as Inquiry

- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

Physical Science

- Position and motion of objects

Earth and Space Science

- Properties of earth materials
- Objects in the sky

Science and Technology

- Abilities of technological design
- Understanding about science and technology
- Abilities to distinguish between natural objects and objects made by humans

Personal and Social Perspectives

- Changes in environments
- Science and technology in local challenges

History of Nature and Science

- Science as a human endeavor

Math

Number and Operations

- Understand numbers, ways of representing numbers, relationships among numbers, and number systems

Geometry

- **Specify locations and describe spatial relationships using coordinate geometry and other representational systems**
- **Apply transformations and use symmetry to analyze mathematical situations**
- **Use visualization, spatial reasoning, and geometric modeling to solve problems**

Measurement

- **Understand measurable attributes of objects and the units, systems, and processes of measurement**
- **Apply appropriate techniques, tools, and formulas to determine measurements.**

Data Analysis and Probability

- **Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them**
- **Develop and evaluate inferences and predictions that are based on data**
- **Understand and apply basic concepts of probability**

Problem Solving

- Build new mathematical knowledge through problem solving
- Apply and adapt a variety of appropriate strategies to solve problems
- Monitor and reflect on the process of mathematical problem solving

Communication

- Organize and consolidate their mathematical thinking through communication
- Communicate their mathematical thinking coherently and clearly to peers, teachers, and others
- Analyze and evaluate the mathematical thinking and strategies of others;
- Use the language of mathematics to express mathematical ideas precisely.

Connections

- Recognize and use connections among mathematical ideas
- Recognize and apply mathematics in contexts outside of mathematics

Representation

- Create and use representations to organize, record, and communicate mathematical ideas

- Select, apply, and translate among mathematical representations to solve problems

Language Arts

- NL-ENG.K-12.4 COMMUNICATION SKILLS Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- NL-ENG.K-12.5 COMMUNICATION STRATEGIES Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
- NL-ENG.K-12.6 APPLYING KNOWLEDGE Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts
- NL-ENG.K-12.12 APPLYING LANGUAGE SKILLS Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).