

Week 4: Understanding Rovers

LESSON 9: SPACECRAFT STRUCTURE AND DESIGN
GRADE LEVEL: 3-5
LENGTH: 3 DAYS

TEKS/SES:

Science

Grade 3

3.1.A 3.2.C 3.2.F 3.3.D 3.4.A 3.6.A 3.6.C

Grade 4

4.1.A 4.2.C 4.2.F 4.3.D 4.4.A 4.6.A 4.6.D

Grade 5

5.1.A 5.2.C 5.2.F 5.3.D 5.4.A 5.6.A 5.6.C 5.8.C

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

Math

Grade 3

3.14.A 3.14.B 3.14.C 3.15.A

Grade 4

4.14.A 4.14.B 4.14.C 4.15.A

Grade 5

5.14.A 5.14.B 5.14.C 5.15.A

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Language Arts

Grade 3

3.2.C 3.3 3.4.B 3.11 3.26.A.iii 3.26.B 3.26.C

Grade 4

4.1 4.4.B 4.9 4.24.A.ii 4.24.B 4.24.C

Grade 5

5.1 5.2.B 5.9 5.24.A

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

- Motions and forces
- Transfer of energy

Earth and Space Science

- Earth in the solar system

Science and Technology

- Abilities of technological design
- Understanding about science and technology

Personal and Social Perspectives

- Science and technology in society

History and Nature of Science

- Science as human endeavor
- Nature of science

Math

Problem Solving

- Build new mathematical knowledge through problem solving
- Solve problems that arise in mathematics and in other contexts
- Apply and adapt a variety of appropriate strategies to solve problems
- Monitor and reflect on the process of mathematical problem solving

Representation

- Create and use representations to organize, record, and communicate mathematical ideas
- Select, apply, and translate among mathematical representations to solve problems
- Use representations to model and interpret physical, social, and mathematical phenomena

Language Arts

- **NL-ENG.K-12.1 READING FOR PERSPECTIVE** Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
- **NL-ENG.K-12.3 EVALUATION STRATEGIES** Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).
- **NL-ENG.K-12.7 EVALUATING DATA** Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

- NL-ENG.K-12.8 DEVELOPING RESEARCH SKILLS Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
- 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).