

Week 5: Designing and Building

LESSON 11: BRAINSTORM AND PRELIMINARY DESIGN

GRADE LEVEL: 3-5

LENGTH: 2 DAYS

TEKS/SES:

Science

Grade 3

3.2.A 3.2.E 3.2.F 3.3.A 3.4.A

Grade 4

4.2.A 4.2.E 4.3.A 4.4.A

Grade 5

5.2.C 5.2.E 5.2.F 5.3.A 5.4.A

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

Grade 4

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

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Language Arts

Grade 3

3.4.B 3.25.A 3.27 3.31

Grade 4

4.2.A 4.2.B 4.23.A 4.25.A 4.29

Grade 5

5.2.A 5.2.B 5.25.A 5.29

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NATIONAL STANDARDS

Science

Science as Inquiry

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

Science and Technology

- Abilities of technological design
- Understandings about science and technology

Personal and Social Perspectives

- Science and technology in society

Math

Measurement

- **Apply appropriate techniques, tools, and formulas to determine measurements.**

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

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 apply mathematics in contexts outside of mathematics

Language Arts

- 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