

Activity 5: In the Driver’s Seat for grades 3-8 (pp. 45 – 49 in Energy & Society Kit)

Subject Area: Language Arts:

Strand: Reading

Standard 2: The student uses constructs meaning from a wide variety of texts.

Benchmarks:

- **Grades 3-5:** Reads and organizes information for a variety of purposes, including making a report, conducting interviews, taking a test, and performing an authentic task. [LA.A.2.2.5]
- **Grades 3-5:** Selects and uses a variety of appropriate reference materials, including multiple representations of information such as maps, charts, and photos, to gather information for research projects. [LA.A.2.2.8]
- **Grades 6-8:** Locates, organizes, and interprets written information for a variety of purposes, including classroom research, collaborative decision making, and performing a school or real-world task. [LA.A.2.3.5]
- **Grades 6-8:** Uses a variety of reference materials, including indexes, magazines, newspapers, and journals, and tools, including card catalogs and computer catalogs to gather information for research topics. [LA.A.2.3.6]

Strand: Listening, Viewing, and Speaking

Standard 1: The student uses listening strategies effectively.

Benchmarks:

- **Grades 3-5:** No applicable benchmarks.
- **Grades 6-8:** Listens and uses information gained for a variety of purposes, such as gaining information from interviews, following directions, and pursuing a personal interest. [LA.C.1.3.1]

Standard 3: The student uses speaking strategies effectively.

Benchmarks:

- **Grades 3-5:** Speaks clearly at an understandable rate and uses appropriate volume. [LA.C.3.2.1]
- **Grades 3-5:** Speaks for specific occasions, audiences, and purposes including conversations, discussions, projects, and informational or imaginative presentations. [LA.C.3.2.3]
- **Grades 3-5:** Participates as a contributor and occasionally acts as a leader in a group discussion. [LA.C.3.2.5]
- **Grades 6-8:** Asks questions and makes comments and observations that reflect understanding and application of content, processes, and experiences. [LA.C.3.3.2]
- **Grades 6-8:** Speaks for various occasions, audiences, and purposes including conversations, discussions, projects, and informational, persuasive, or technical presentations. [LA.C.3.3.3]

Subject Area: Social Studies

Strand: People, Places and Environments (Geography)

Standard 2: The student understands the interactions of people and the physical environment.

Benchmarks:

- **Grades 3-5:** Understands how human activity affects the physical environment. [SS.B.2.2.3]
- **Grades 6-8:** No applicable benchmarks.

Strand: Production, Distribution, and Consumption (Economics)

Standard 1: The student understands how scarcity requires individuals and institutions to make choices about how to use available resources.

Benchmarks:

- **Grades 3-5:** Understands that all decisions involve opportunity costs and that making effective decisions involves considering the costs and the benefits associated with alternative choices. [SS.D.1.2.1]
- **Grades 6-8:** Understands the variety of factors necessary to consider when making wise consumer decisions. [SS.D.1.3.3]

Subject Area: Science

Strand: Processes that Shape the Earth

Standard 2: The student understands the need for protection of natural systems on Earth.

Benchmarks:

- **Grades 3-5:** Knows that reusing, recycling, and reducing the use of natural resources improve and protect the quality of life. [SC.D.2.2.1]
- **Grades 6-8:** No applicable benchmarks.

Strand: How Living Things Interact With Their Environment

Standard 2: The student understands the consequences of using limited natural resources.

Benchmarks:

- **Grades 3-5:** No applicable benchmarks.
- **Grades 6-8:** Knows that some resources are renewable and others are nonrenewable. [SC.G.2.2.3]

Strand: The Nature of Science

Standard 1: The student uses the scientific processes and habits of mind to solve problems.

Benchmarks:

- **Grades 3-5:** Knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results. [SC.H.1.2.2]
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- **Grade 3-5:** Knows that to compare and contrast observations and results is an essential skill in science. [SC.H.1.2.4]

- **Grades 3-5:** Knows that a model of something is different from the real thing, but can be used to learn something about the real thing. [SC.H.1.2.5]
- **Grades 6-8:** Knows that a change in one or more variables may alter the outcome of an investigation. [SC.H.1.3.5]

Standard 3: The student understands that science, technology, and society are interwoven and interdependent.

Benchmarks:

- **Grades 3-5:** Knows that through the use of science processes and knowledge, people can solve problems, make decisions, and form new ideas. [SC.H.3.2.4] *
- **Grades 6-8:** No applicable benchmarks.

Subject Area: Mathematics

Strand: Number Sense, Concepts, and Operations

Standard 3: The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving.

Benchmarks:

- **Grades 3-5:** Selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers. [MA.A.3.2.2]
- **Grades 3-5:** Adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator. [MA.A.3.2.3]
- **Grades 6-8:** Selects the appropriate operation to solve problems involving addition, subtraction, multiplication, and division of rational numbers, ratios, proportions, and percents, including the appropriate application of algebraic order of operations. [MA.A.3.3.2]
- **Grades 6-8:** Adds, subtracts, multiplies, and divides whole numbers, decimals, and fractions, including mixed numbers, to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator. [MA.A.3.3.3]

Standard 4: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations.

Benchmarks:

- **Grades 3-5:** Determines which units of measurement, such as seconds, square inches, and dollars per thankful, to use with answers to real-world problems. [MA.B.4.2.1]
- **Grades 6-8:** No applicable benchmarks.

Strand: Data Analysis and Probability

Standard 1: The student understands and uses the tools of data analysis for managing information.

Benchmarks:

- **Grades 3-5:** Determines range, mean, median, and mode from sets of data. [MA.E.1.2.2]
- **Grades 6-8:** Understands and applies the concepts of range and central tendency (mean, median and mode). [MA.E.1.3.2]

Note – Benchmarks followed by a star (*) are only met when Integrating Music and Dance, Enrichment, and/or Assessment activities are conducted.