

Freetown Lakeville Public Schools

Grade 7 Unit Guide
Science and Technology Engineering

June 19, 2003

Grade 7 Curriculum Guideline

Purpose of this Curriculum Guide:

**Grade 7 Science and Technology Engineering
Mission:**

**Grade 7 Science and Technology Engineering
Philosophy:**

This curriculum was written by:

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Unit:

Topic:

Student Learning Outcomes

Textbook References, Resources and Materials

- 50301** Recognize and interpret various mapping representations (e.g. topographic) depicting some of the earth's common physical features.
- Create models of the earth's common physical features.
- [Does social studies incorporate contour maps?]
- 50313** Give examples of organisms from each kingdom.
- 50315** Identify functions of cell membrane, cell wall, nucleus, cytoplasm, chloroplasts, mitochondria, vacuoles.
- 50316** Recognize that within cells, many of the basic functions of organisms (e.g., extracting energy from food and getting rid of waste) are carried out.
- Explain how cell function is similar in all living organisms.
- 50317** Describe the hierarchical organization of multicellular organisms from cells to tissues to organs to systems to organisms.
- 50318** Recognize that every organism requires a set of instructions, found in DNA, for specifying its traits.
- Define heredity as the passage of instructions for specifying traits from one generation to another.
- 50319** Recognize that hereditary information is contained in genes located in the chromosomes of each cell.
- Recognize that human cells contain many thousands of different genes.
- 50320** Differentiate between sexual reproduction (offspring inherit half of their genes from each parent) and asexual reproduction (offspring is an identical copy of the parent's cell).
- 50327** Recognize that producers (plants that contain chlorophyll) use the energy from sunlight to make sugars from carbon dioxide and water through a process called photosynthesis.
- Explain that this sugar (glucose) can be used immediately, stored for later use, or used by other organisms.

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Suggested Instructional Strategies

Assessment

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Recommended Resources for Grade 7 Science and Technology Engineering: