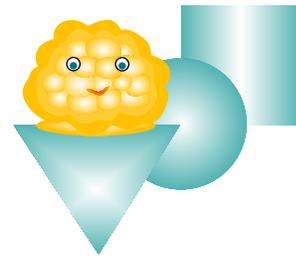


Activity "Administrivia":

Intended Grade Level:

6th-8th



Activity "Administrivia"

Key Concepts:

Electrochemical cell, electrolytes, electrodes, electrical conductivity

Process Skills utilized in lesson:

Make a hypothesis, gathering data, organizing data in a chart form, analyzing data, draw conclusions, reading a scale on an instrument

Previous learning assumed:

Metals conduct electricity, batteries have both a positive and a negative terminal

Relevant TEKS:

Science Grade 6:

(1) Scientific processes. The student conducts field and laboratory investigations using safe, environmentally appropriate, and ethical practices. The student is expected to: (A) demonstrate safe practices during field and laboratory investigations; and (B) make wise choices in the use and conservation of resources and the disposal or recycling of materials.

(2) Scientific processes. The student uses scientific inquiry methods during field and laboratory investigations. The student is expected to: (A) plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting and using equipment and technology; (B) collect data by observing and measuring; (C) analyze and interpret information to construct reasonable explanations from direct and indirect evidence; (D) communicate valid conclusions; and (E) construct graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate data.

(3) Scientific processes. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to: (A) analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information; (B) draw inferences based on data related to promotional materials for products and services;

(C) represent the natural world using models and identify their limitations; (D) evaluate the impact of research on scientific thought, society, and the environment; and (E) connect Grade 6 science concepts with the history of science and contributions of scientists.

(4) Scientific processes. The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to: (A) collect, analyze, and record information using tools including beakers, petri dishes, meter sticks, graduated cylinders, weather instruments, timing devices, hot plates, test tubes, safety goggles, spring scales, magnets, balances, microscopes, telescopes, thermometers, calculators, field equipment, compasses, computers, and computer probes; and (B) identify patterns in collected information using percent, average, range, and frequency.

6.7) Science concepts. The student knows that substances have physical and chemical properties. The student is expected to: (B) classify substances by their physical and chemical properties.

Science Grade 7:

(1) Scientific processes. The student conducts field and laboratory investigations using safe, environmentally appropriate, and ethical practices.

The student is expected to: (A) demonstrate safe practices during field and laboratory investigations; and (B) make wise choices in the use and conservation of resources and the disposal or recycling of materials.

(2) Scientific processes. The student uses scientific inquiry methods during field and laboratory investigations. The student is expected to:

(A) plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting and using equipment and technology; (B) collect data by observing and measuring; (C) organize, analyze, make inferences, and predict trends from direct and indirect evidence; (D) communicate valid conclusions; and (E) construct graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate data.

(3) Scientific processes. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to: (A) analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information; (B) draw inferences based on data related to promotional materials for products and services; (C) represent the natural world using models and identify their limitations; (D) evaluate the impact of research on scientific thought, society, and the environment; and (E) connect Grade 7 science concepts with the history of science and contributions of scientists.

(4) Scientific processes. The student knows how to use tools and methods to conduct science inquiry. The student is expected to: (A) collect, analyze, and record information to explain a phenomenon using tools including beakers, petri dishes, meter sticks, graduated cylinders, weather instruments, hot plates, dissecting equipment, test tubes, safety goggles, spring scales, balances, microscopes, telescopes, thermometers, calculators, field equipment, computers, computer probes, timing devices, magnets, and compasses; and (B) collect and analyze information to recognize patterns such as rates of change.

Science Grade 8-9D:

(1) Scientific processes. The student conducts field and laboratory investigations using safe, environmentally appropriate, and ethical practices.

The student is expected to: (A) demonstrate safe practices during field and laboratory investigations; and (B) make wise choices in the use and conservation of resources and the disposal or recycling of materials.

(2) Scientific processes. The student uses scientific inquiry methods during field and laboratory investigations. The student is expected to: (A) plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting and using equipment and technology; (B) collect data by observing and measuring; (C) organize, analyze, evaluate, make inferences, and predict trends from direct and indirect evidence; (D) communicate valid conclusions; and (E) construct graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate data.

(3) Scientific processes. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to: (A) analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information; (B) draw inferences based on data related to promotional materials for products and services; (C) represent the natural world using models and identify their limitations; (D) evaluate the impact of research on scientific thought, society, and the environment; and (E) connect Grade 8 science concepts with the history of science and contributions of scientists.

(4) Scientific processes. The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to: (A) collect, record, and analyze information using tools including beakers, petri dishes, meter sticks, graduated cylinders, weather instruments, hot plates, dissecting equipment, test tubes, safety goggles, spring scales, balances, microscopes, telescopes, thermometers, calculators, field equipment, computers, computer probes, water test kits, and timing devices; and (B) extrapolate from collected information to make predictions. (9) Science concepts. The student knows that substances have chemical and physical properties. The student is expected to: (D) identify that physical and chemical properties influence the development and application of everyday materials such as cooking surfaces, insulation, adhesives, and plastics.



LESSON 3

ACTIVITY 3C, PART 1

2007 PROTOTYPE

Positively Aging®/M.O.R.E.

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