NORTH CAROLINA ESSENTIAL STANDARDS

Occupational Course of Study
Applied Science

Note: All students following the Occupational Course of Study are also required to take English I, II, III, and IV, Math I, American History I and American History II, and Health and Physical Education.

Grade: High School

Course: Forces and Motion

- OA1.1 - Understand force and motion.
  - OA1.1.1 - Compare weight and mass.
  - OA1.1.2 - Classify types of force (gravity, friction, magnetism).
  - OA1.1.3 - Describe the effects of force (gravity, friction, magnetism) on an object's weight and motion.

Course: Energy

- OA2.1 - Understand energy and its conservation.
  - OA2.1.1 - Identify forms of energy (solar, nuclear, wind, chemical).
  - OA2.1.2 - Explain the effects of various forms of energy on the environment.
  - OA2.1.3 - Identify ways that consumers can conserve energy.

Course: Electricity and Magnetism

- OA3.1 - Understand electricity and magnetism.
  - OA3.1.1 - Interpret a compass.
  - OA3.1.2 - Explain how magnetic poles behave.
  - OA3.1.3 - Understand safety procedures related to static electricity.
  - OA3.1.4 - Understand safety procedures related to household electricity.

Course: Matter

- OA4.1 - Understand properties of matter (color, shape, volume, density, texture).
  - OA4.1.1 - Distinguish between the three states of matter (solid, liquid, gas).
  - OA4.1.2 - Classify common materials according to their properties (color, shape, volume, density, texture).

Course: Chemicals

- OA5.1 - Identify the uses and dangers of common chemicals.
  - OA5.1.1 - Identify uses of common chemicals.
  - OA5.1.2 - Identify dangers related to common household chemicals (chlorine bleach, antifreeze, chemicals for lawn and garden, insecticides, rodent poison, de-icing salt).

Course: The Environment
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• OA6.1 - Understand how humans can have positive and negative effects on the environment.
  ○ OA6.1.1 - Explain how humans can have a positive impact on natural resources.
  ○ OA6.1.2 - Explain the effects of pollution on the earth, air and waterways and what can be done at the individual, family and community level to reduce pollution.

Course: Body Systems

• OA7.1 - Understand the human body's basic needs and control systems.
  ○ OA7.1.1 - Explain the primary functions of the major systems of the human body and the major organs within these systems.
  ○ OA7.1.2 - Identify normal or desirable ranges for common health indicators (temperature, blood pressure, weight, cholesterol and blood glucose levels).
  ○ OA7.1.3 - Classify health problems and symptoms in terms of whether they require or do not require medical attention.
  ○ OA7.1.4 - Identify appropriate sources of medical care for identified problems/symptoms.
  ○ OA7.1.5 - Understand basic first aid techniques.