West Virginia Alternate Academic Achievement Standards

Science: Physical Science

Physical Science

Structure and Properties of Matter

1 Use a model to describe that matter is made of particles too small to be seen. A.S.11.1

Chemical Reactions

2 Identify the changes that occurred during a chemical reaction. A.S.11.2

3 Recognize a release or absorption of energy from a chemical reaction. A.S.11.3

Forces and Integrations

4 Evaluate the effectiveness of safety devices and design a solution that could minimize the force of a collision. A.S.11.4

5 Build electromagnets to provide evidence that an electric current can produce a magnetic field. A.S.11.5

Energy

6 Test and refine a device (e.g., foam, plastic, metal containers, insulated box, or thermos) to either minimize or maximize thermal energy transfer (e.g., keeping liquids hots or cold, allowing liquids to warm or cool quickly, keeping hands warm in cold temperatures). A.S.11.6

7 Investigate and predict the temperatures of two liquids before and after combining to show uniform energy distribution. A.S.11.7

8 Identify how devices convert one kind of energy to another (e.g., flashlight – stored chemical energy to light and heat energy, toaster – electric energy to heat energy). A.S.11.8

Waves and Electromagnetic Radiation

9 Use a model to demonstrate an understanding that waves (e.g., light, sound, radio) are reflected, absorbed, or transmitted through various materials. A.S.11.9

10 Identify how each of the types of electromagnetic radiation is used or found in our everyday lives. A.S.11.10

11 Provide evidence that shows how some devices use light and soundwaves to transmit and capture information. A.S.11.11

Engineering, Technology and Application Science

Engineering Design

12 Compare and contrast several design solutions to identify the best characteristics of each that can be combined in new solution to better meet the criteria for success. A.S.11.12

Science Literacy

Reading: Key Ideas and Details

13 Follow multistep procedures when taking measurements or carrying out experiments. A.S.11.13

Reading: Craft and Structure

14 Identify the meaning of symbols, key terms, and other domain-specific words and phrases. A.S.11.14

Reading: Integration of Knowledge and Ideas

15 Express information visually (e.g., in a flowchart, diagram, model). A.S.11.15

Writing: Text Types and Purposes

16 Compare and contrast discipline-specific content using well-chosen facts and domainspecific vocabulary to explain the topic. A.S.11.16

17 Provide an explanation of discipline-specific content using well-chosen facts and domainspecific vocabulary to explain the topic. A.S.11.17