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| • | The standard is clearly addressed by program activities. |  |
| - | This standard potentially could be addressed as part of a <i>FIRST</i> ® program either by actions that the coach or teacher takes when working with the students or by conditions established by the program. | |

| | Topic | Number | Standard | Class Pack | Team |
|------------------|---|---------|--|------------|------|
| Physical Science | PSC.1 Identify SDA Christian principles and values in correlation with science. | | | | |
| | | PSC.1.1 | Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe. | | |
| | | PSC.1.2 | Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation. | | |
| | | PSC.1.3 | Develop stewardship and service attitudes toward health, life, and earth’s environment. | | |
| | | PSC.1.4 | Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life. | | |
| | | PSC.1.5 | Equip students with Christian perspectives on scientific issues. | | |
| | PSC.2 Develop abilities in science. HS-ETS1 | | | | |
| | | PSC.2.1 | Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling). | • | • |
| | | PSC.2.2 | Understand and utilize the scientific method of problem solving. | • | • |
| | | PSC.2.3 | Utilize the principles and methodologies of cooperative learning. | • | • |
| | PSC.3 Be able to apply science knowledge and skills to a variety of purposes. HS-ETS1 | | | | |
| | | PSC.3.1 | Recognize scientific principles and laws as tools to solve problems in everyday life. | • | • |
| | | PSC.3.2 | Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research. | • | |
| | | PSC.3.3 | Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications). | • | • |
| | | PSC.3.4 | Conduct research in the content area. | • | - |
| | | PSC.3.5 | Engage in various uses of technology. | • | • |
| | PSC.4 Be able to understand the relationships between matter and energy and how they interact. | | | | |
| | | PSC.4.1 | Recognize God as the Designer and Creator of our physical world. | | |
| | | PSC.4.2 | Introduce the fundamental structure and properties of matter (physical, chemical, periodic table). HS-PS1-1, 1-2 | | |
| | | PSC.4.3 | Demonstrate understanding of scientific measurement and expression (conversions, scientific notation). | • | • |
| | | PSC.4.4 | Become acquainted with the interactions of matter (bonding, reaction types). HS-PS1-1, 1-2, 1-4, 1-5 | | |
| | | PSC.4.5 | Familiarize students with the fundamental properties of force and motion (Newton’s laws, velocity, acceleration) HS-PS2-1, 2-2, 2-3, 2,4 | • | • |
| | | PSC.4.6 | Present the basic concepts of different energy forms (sound, electromagnetic waves, kinetic, potential, heat, nuclear, etc.). HS-PS1-8, 3-1, 3-2, 3-3, 3-4, 3-5, 4-1 | • | - |
| | PSC.5 Be able to safely explore Physical Science concepts. | | | | |
| | | PSC.5.1 | Observe the structure and properties of matter. HS-PS1-3 | | |
| | | PSC.5.2 | Explore the interactions of matter. HS-PS1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7 | | |
| | | PSC.5.3 | Investigate the properties and interactions of force and motion. HS-PS2-1, 2-2, 2-3, 2-4, 2-5 | • | • |
| | | PSC.5.4 | Examine the fundamental concepts of different energy forms. HS-PS1-4, 1-8, 3-1, 3-2, 3-3, 3- | | |

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| | | 4, 3-5, 4-1 | | |
| | PSC.6 Be able to analyze Physical Science concepts. | | | |
| | PSC.6.1 | Exhibit understanding of the basic structure and properties of matter. HS-PS1-1, 1-2, 1-3, 2-6 | | |
| | PSC.6.2 | Interpret the results of the interactions of matter. HS-PS1-1, 1-2, 1-4, 1-5, 1-6, 1-7, 2-5 | | |
| | PSC.6.3 | Relate the concepts of force to motion. HS-PS2-1, 2-2, 2-3, 2-4 | • | • |
| | PSC.6.4 | Compare and contrast the different forms of energy. HS-PS1-8, 3-1, 3-2, 3-3, 3-4, 3-5 | - | - |
| | PSC.7 Be able to apply fundamentals of Physical Science to life and the physical environment. | | | |
| | PSC.7.1 | Strengthen belief in God as Designer and Creator by applying the fundamentals of Physical Science. | | |
| | PSC.7.2 | Utilize the concepts of Physical Science to improve lifestyle choices. HS-PS2-3, 4-2, 4-4, 4-5 | • | |
| | PSC.7.3 | Apply the study of Physical Science to issues regarding the environment. HS-PS4-4 | • | |
| Physics | PHY.1 Identify SDA Christian principles and values in correlation with science. | | | |
| | PHY.1.1 | Recognize God's power as Designer, Creator, Sustainer, and Redeemer in the universe. | | |
| | PHY.1.2 | Acknowledge God as the Author of all scientific principles and laws regardless of man's interpretation. | | |
| | PHY.1.3 | Develop stewardship and service attitudes toward health, life, and earth's environment. | • | • |
| | PHY.1.4 | Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life. | • | • |
| | PHY.1.5 | Equip students with Christian perspectives on scientific issues | | |
| | PHY.2 Develop abilities in science. HS-ETS1 | | | |
| | PHY.2.1 | Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling). | • | • |
| | PHY.2.2 | Understand and utilize the scientific method of problem solving. | • | • |
| | PHY.2.3 | Utilize the principles and methodologies of cooperative learning. | • | • |
| | PHY.3 Be able to apply science knowledge and skills to a variety of purposes. HS-ETS1 | | | |
| | PHY.3.1 | Recognize scientific principles and laws as tools to solve problems in everyday life. | • | • |
| | PHY.3.2 | Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research. | • | |
| | PHY.3.3 | Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications). | • | • |
| | PHY.3.4 | Conduct research in the content area. | | |
| | PHY.3.5 | Engage in various uses of technology. | • | • |
| | PHY.4 Be able to understand relationships between matter and energy and how they interact. | | | |
| | PHY.4.1 | Recognize God as the Designer and Creator of our physical world and its governing laws. | | |
| | PHY.4.2 | Identify the fundamental properties and laws of mechanics. HS-PS2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3 | •• | |
| | PHY.4.3 | Define the properties and laws of thermodynamics. HS-PS3-1, 3-2, 3-3, 3-4 | | |
| | PHY.4.4 | Demonstrate an understanding of sound and electromagnetic wave principles. HS-PS4-1, 4-3, 4-4, 4-5 | • | • |
| | PHY.4.5 | Describe the fundamental properties of electricity and magnetism. HS-PS2-4, 2-5, 3-1, 3-2, 3-3, 3-5 | • | • |
| | PHY.4.6 | Understand the basic concepts of nuclear physics. HS-PS1-8 | | |
| | PHY.5 Be able to safely explore physics concepts. | | | |
| | PHY.5.1 | Test the properties and laws of mechanics (Newton's laws, work, power, velocity, energy, etc.). HS-PS2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3 | • | • |
| PHY.5.2 | Explore the properties and laws of thermodynamics (laws, heat energy). HS-PS3-1, 3-2, 3-3, 3-4 | | | |
| PHY.5.3 | Investigate the properties of sound and electromagnetic waves (waves, optics, etc.). HS-PS3-3, 4-1, 4-3, 4-4, 4-5 | • | - | |
| PHY.5.4 | Examine the principles of electricity and magnetism (circuits, Ohm's law, forces, charges, fields). HS-PS2-4, 2-5, 3-1, 3-2, 3-3, 3-5 | • | - | |
| PHY.5.5 | Research the principles of nuclear physics (quantum theory, radioactivity, dating methods, | | | |

etc.). HS-PS1-8

PHY.6 Be able to analyze physics data

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| PHY.6.1 | Predict the outcome of motion and force problems using the principles of mechanics. HS-PS2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3 | ● | ● |
| PHY.6.2 | Correlate changes in energy to the laws of thermodynamics. HS-PS3-1, 3-2, 3-3, 3-4 | | |
| PHY.6.3 | Evaluate the conditions and factors which affect sound and electromagnetic waves. HS-PS3-3, 4-1, 4-3, 4-4, 4-5 | ● | - |
| PHY.6.4 | Analyze various electrical circuits. HS-PS2-4, 2-5 | - | - |
| PHY.6.5 | Interpret the results of nuclear research. HS-PS1-8 | | |

PHY.7 Be able to apply principles of physics to health, life, and the physical environment.

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| PHY.7.1 | Strengthen belief in God as Designer and Creator by applying the laws of physics. | | |
| PHY.7.2 | Utilize the concepts of physics to improve lifestyle choices. HS-PS4-2, 4-5 | - | - |
| PHY.7.3 | Apply the study of physics to issues regarding nuclear energy. HS-PS1-8 | | |