**2016 ADVENTIST EDUCATION STANDARDS**

Standards, what learners should know (content) and be able to do (skills), serve as the framework for curriculum development. Standards in NAD Seventh-day Adventist schools reflect the Adventist worldview across the K-12 curricula as well as the integration of national and provincial/state standards. The Adventist worldview accepts the Bible as the standard by which everything else is measured. Four key concepts emerge from a biblical worldview that can be used as a lens for curriculum development, as well as informing the essential questions and big ideas of any content area: Creation (What is God’s intention?), Fall (How has God’s purpose been distorted?), Redemption (How does God help us to respond?), and Re-creation (How can we be restored in the image of God?).

**— THE CORE OF ADVENTIST EDUCATION CURRICULUM**

**SCIENCE AND ENGINEERING PRACTICES**

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

**— NEXT GENERATION SCIENCE STANDARDS**

**STANDARDS CODING**

The standards have been coded so that educators can easily refer to them in their curriculum, instruction, and assessment practices. The coding system that precedes each standard begins with the content area abbreviation in letters; all are identified with S—Science (**S**.K-2.LS.1). The second part of the code refers to the grade level (S.**K**-2.LS.1). The third part of the code refers to the particular science domain (S.K-2.**LS**.1), with LS standing for Life Sciences. The fourth part of the code refers to a particular skill within the science domain (S.K-2.LS.**1**). The coding system that follows each standard is the Next Generation Science Standards (NGSS) that aligns with the NAD standard. Where no NGSS is noted, there is no corresponding NGSS.

**PERFORMANCE-BASED STANDARDS**

The science standards are performance-based outcomes (what students should be able to do) rather than content-based outcomes (what students should know). The content standards are implied within the context of the performance standards.

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The following resources were referenced in developing Science Standards for Seventh-day Adventist Schools: a sampling of state standards, NAD Curriculum Guide for Science, Next Generation Science Standards (NGSS), National Health Education Standards (NHES), and the Core of Adventist Education Curriculum.

**1. CULTURE**

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| **GRADE** | **STANDARDS (NGSS ALIGNMENT) Utilize relevant and appropriate biblical and Seventh-day Adventist historical references.** |
| **Essential Question:** What role does culture play in God’s plan for our relationships with others? | **Big Idea:** Human beings should create, learn about, share, and adapt to cultural diversity and perspectives in an interconnected world within God’s plan. |
| **K-4** | **SS.K-4.C.1** | Define culture as referring to the behaviors, beliefs, values, traditions, institutions, and ways of living together of a group of people. (KE 1.1)• Ask and find answers to questions related to culture in the contexts of school, community, state, and region. (PE 1.1) |
| **SS.K-4.C.2** | Identify concepts such as: similarities, differences, beliefs, values, cohesion, and diversity. (KE 1.2) |
| **SS.K-4.C.3** | Tell how cultural beliefs, behaviors, and values allow human groups to solve the problems of daily living. (KE 1.3)• Explore and describe similarities and differences in the ways various cultural groups meet similar needs and concerns. (PE 1.2) |
| **SS.K-4.C.4** | Demonstrate respect for people with different religious beliefs, different ages, backgrounds, and ethnicity. |
| **SS.K-4.C.5** | Explain how culture may change in response to changing needs and concerns. (KE 1.4)• Give examples of how information and experiences may be interpreted differently by people from different cultural groups. (PE 1.3) |
| **SS.K-4.C.6** | Relate how individuals learn the elements of their culture through interactions with other members of the culture group. (KE 1.5)• Describe the value of both cultural unity and diversity within and across groups. (PE 1.4) |
| **SS.K-4.C.7** | Recall how peoples from different cultures develop different values and ways of interpreting experience. (KE1.6)• Demonstrate how holding different values and beliefs can contribute or pose obstacles to understanding between people and groups. (PE 1.5) |
| **SS.K-4.C.8** | Identify the influence of Seventh-day Adventist heritage on culture. |
| **5-8** | **SS.5-8.C.1** | Explain “culture” as it refers to the socially transmitted behaviors, beliefs, values, traditions, institutions, and ways of living together of a group of people. (KM 1.1) |
| **SS.5-8.C.2** | Define concepts such as beliefs, values, institutions, cohesion, diversity, accommodation, adaptation, assimilation, and dissonance. (KM 1.2)• Ask and find answers to questions related to culture. (PM 1.1) |
| **SS.5-8.C.3** | Find evidence(s) of how culture influences the ways in which human groups solve the problems of daily living. (KM 1.3)• Find, select, organize, and present information to compare various cultures according to specified aspects of culture, such as institutions, language, religion, and the arts. (PM 1.2) |
| **SS.5-8.C.4** | Describe how the beliefs, values, and behaviors of a culture form an integrated system that helps shape the activities and ways of life that define a culture. (KM 1.4)• Explain how patterns of behavior reflect cultural values and beliefs. (PM 1.5) |
| **SS.5-8.C.5** | Compare the basic beliefs of the Seventh-day Adventist church with other religions and philosophies. |
| **SS.5-8.C.6** | Discern how people learn the elements of their culture through interactions with others, and how people learn of other cultures through communication and study. (KM 1.5)• Illustrate the value of both cultural unity and diversity, within and across groups. (PM 1.4) |
| **SS.5-8.C.7** | Demonstrate respect for people with different religious beliefs, different ages, backgrounds, and ethnicity. |
| **SS.5-8.C.8** | Prove that culture may change in response to changing needs, concerns, social, political, and geographic conditions. (KM 1.6)• Draw inferences from data about the ways in which given cultures respond to persistent human issues and how culture influences those responses. (PM 1.7) |
| **SS.5-8.C.9** | Explain how people from different cultures develop different values and ways of interpreting experience. (KM 1.7)• Show how data and experiences may be interpreted differently by people from diverse cultural perspectives and frames of reference. (PM 1.3) |
| **SS.5-8.C.10** | Analyze how language, behaviors, and beliefs of different cultures can both contribute to and pose barriers to cross-cultural understanding. (KM 1.8)• Illustrate how holding diverse values and beliefs can contribute or pose obstacles to cross-cultural understanding. (PM 1.6) |
| **SS.5-8.C.11** | Identify the influence of Seventh-day Adventist heritage on culture. |

**2. TIME, CONTINUITY, AND CHANGE**

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| **Essential Question:** What role does God play in the development of communities, nations, and the world? | **Big Idea:** God is active in history and ultimately His unfolding plan will triumph. |
| **K-4** | **SS.K-4.TCC.1** | Explain that the study of the past is the story of communities, nations, and the world. (KE 2.1)• Ask and find answers to questions related to the past in school, community, state, and regional contexts. (PE 2.1) |
| **SS.K-4.TCC.2** | Define key concepts such as: past, present, future, similarity, difference, and change. (KE 2.2)• Use a variety of resources to learn about the past. (PE 2.2) |
| **SS.K-4.TCC.3** | Understand that we can learn our personal past and the past of communities, nations, and the world by means of stories, biographies, interviews, and original sources such as documents, letters, photographs, and artifacts. (KE 2.3)• Identify the examples of both continuity and change, as depicted in stories, photographs, and documents. (PE 2.3) |
| **SS.K-4.TCC.4** | Name key people, events, and places associated with the history of the community, nation, and world. (KE 2.4)• Describe how people in the past lived, and research their values and beliefs. (PE 2.6) |
| **SS.K-4.TCC.5** | Identify the accomplishments of Seventh-day Adventists in history. |
| **SS.K-4.TCC.6** | Identify the first Seventh-day Adventist missionaries. |
| **SS.K-4.TCC.7** | Identify key symbols and traditions that are carried from the past into the present by diverse cultures in the United States and the world. (KE 2.5)• Describe examples of cause and effect relationships. (PE 2.4) |
| **SS.K-4.TCC.8** | Explain that people view and interpret historical events differently because of the times in which they live, their experiences, and the point of view they hold. (KE 2.6)• Compare and contrast differing stories or accounts about the past events, people (including church pioneers), places, or situations, and offer possible reasons for the differences. (PE 2.5) |
| **SS.K-4.TCC.9** | Trace how the origins of the Seventh-day Adventist church are threaded throughout history. |
| **SS.K-4.TCC.10** | Show that historical events occurred in times that differed from our own but often have lasting consequences for the present and future. (KE 2.7)• Use sources to learn about the past in order to inform decisions about actions on issues of importance today. (PE 2.7)• Use historical methods of inquiry and literacy skills to research and present findings. (PE 2.8) |
| **SS.K-4.TCC.11** | Read and retell Bible and church history stories that portray how God works through people to help make the community a better place. |
| **5-8** | **SS.5-8.TCC.1** | Explain how the study of the past provides a representation of the history of communities, nations, and the world. (KM 2.1) |
| **SS.5-8.TCC.2** | Define the concepts: chronology, causality, change, conflict, complexity, multiple perspectives, primary and secondary sources, and cause and effect. (KM 2.2)• Identify and use a variety of primary and secondary sources for reconstructing the past, such as documents, letters, diaries, maps, textbooks, photos, and other sources. (PM 2.2) |
| **SS.5-8.TCC.3** | Cite evidence that learning about the past requires the interpretation of sources and that using varied sources provides the potential for a more balanced interpretive record of the past. (KM 2.3) |
| **SS.5-8.TCC.4** | Using the Bible and the Spirit of Prophecy, trace the great controversy throughout history. |
| **SS.5-8.TCC.5** | Demonstrate that historical interpretations of the same event may differ on the basis of such factors as conflicting evidence from varied sources, national or cultural perspectives, and the point of view of the researcher. (KM 2.4)• Research and analyze past periods, events and issues, using a variety of primary sources as well as secondary sources; validate and weigh evidence for claims, and evaluate the usefulness and degree of reliability of sources to develop a supportable interpretation. (PM 2.3) |
| **SS.5-8.TCC.6** | Analyze key historical periods and patterns of change within and across cultures. (KM 2.5)• Formulate questions about topics in history, predict possible answers, and use historical methods of inquiry and literacy skills to locate, organize, analyze, and interpret sources, and present supported findings. (PM 2.1) |
| **SS.5-8.TCC.7** | Discuss the aftermath of the Great Disappointment and the gift of prophecy given to Ellen White. |
| **SS.5-8.TCC.8** | Outline the origins and influences of social, cultural, political, and economic systems. (KM 2.6) |
| **SS.5-8.TCC.9** | Compare and contrast the influences of social, geographic, economic, and cultural factors on the history of local areas, states, nations, and the world. (KM 2.9)• Evaluate the impact of the values, beliefs, and institutions of people in the past on important historical decisions and developments of their times. (PM 2.4) |
| **SS.5-8.TCC.10** | Identify the accomplishments of Seventh-day Adventists in history. |
| **SS.5-8.TCC.11** | Outline the efforts and influence of Seventh-day Adventist missionaries. |
| **SS.5-8.TCC.12** | Elaborate on the contributions of key persons, groups, and events from the past and their influence on the present. (KM 2.7)• Evaluate the impact of the values, beliefs, and institutions of people in the past on important historical decisions and developments of their times. (PM 2.4) |
| **SS.5-8.TCC.13** | Investigate the history of democratic ideals and principles and how they are represented in documents, artifacts, and symbols. (KM 2.8)• Use methods of historical inquiry to make informed decisions as responsible citizens to propose policies and take action on an important current issue. (PM 2.5) |
| **SS.5-8.TCC.14** | Study the prophetic outlines of Daniel and the Revelation. |