Common Core State Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

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 M—Math (M.K.NO.1). The second part of the code refers to the grade level (M.K.NO.1). The third part of the code refers to the particular math domain (M.K.NO.1), with NO standing for Numbers and Operations. The fourth part of the code refers to a particular skill within the math domain (M.K.NO.1). The coding system that follows each standard is the Common Core State Standards for Mathematics (CCSSM) that aligns with the NAD standard. Where no CCSSM is noted, there is no corresponding CCSSM.

CREDITS
The following resources were referenced in developing *Elementary Mathematics Standards for Seventh-day Adventist Schools*: a sampling of state standards, the National Council of Teachers of Mathematics (NCTM), NAD Curriculum Guide for Mathematics, Common Core State Standards for Mathematics (CCSSM), and *The Core of Adventist Education Curriculum*.

DEVELOPMENT COMMITTEE MEMBERS
Carolyn Angelo Madison Campus Elementary
Gene Brewer Southern Union Conference
Carol Campbell North American Division
Cathy Farkas Middletown Christian School of SDA
Mike Furr Southwestern Union Conference
Rayleen Hansen Southview Christian School
Jim Martz Lake Union Conference
Sandra Olivares San Gabriel Academy
Liz Panda Cincinnati Junior Academy
**Essential Question:** How can objects be represented to help us understand the variety of God’s creation?

**Big Idea:** A single collection of objects can always be represented in more than one way to help us understand the variety of God’s creation.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>CONTENT</th>
<th>SKILLS</th>
</tr>
</thead>
</table>
| **K** | **Addition** | **K.OA.1** Understand addition as putting together and adding to (K.OA.1,2)  
**K.OA.2** Represent and solve addition word problems within 10; fluently add within 5 (K.OA.3,4,5) |
| **K** | **Subtraction** | **K.OA.3** Understand subtraction as taking apart and taking from (K.OA.1,2)  
**K.OA.4** Represent and solve subtraction word problems within 10; fluently subtract within 5 (K.OA.3,4,5) |
| **1** | **Addition/Subtraction** | **1.OA.1** Understand, represent, compare, and apply addition and subtraction properties to word problems within 20; fluently add and subtract within 10 (1.OA.1,2,3,4,5,6); add up to three whole numbers within 20 (1.OA.2); add two-digit and one-digit numbers with regrouping within 100 using models or drawings (1.NBT.4)  
**1.OA.2** Work with addition and subtraction equations including unknowns (1.OA.7,8) |
| **1** | **Addition/Subtraction** | **2.OAT.1** Understand, represent, compare, and apply addition and subtraction properties within 100 to solve one- and two-step word problems (2.OA.1) (2.NBT.5); add up to four 2-digit numbers (2.NBT.6)  
**2.OAT.2** Memorize and fluently add and subtract within 20 (2.OA.2) |
| **2** | **Multiplication** | **2.OAT.3** Determine if a group of objects within 20 represents an odd or even number (2.OA.3)  
**2.OAT.4** Write an equation to represent the total as a sum of equal addends with up to 5 groups of 5 objects (2.OA.3,4) |
<p>| <strong>Assessments</strong> | | Math Interviews; Checklists; Models and Drawings; Written Assessments |</p>
<table>
<thead>
<tr>
<th>Essential Question: How do numerical patterns link us to an infinite God?</th>
<th>Big Idea: Exploring numerical patterns through problem solving links us to an infinite God by demonstrating His order and constancy.</th>
</tr>
</thead>
</table>
| **Multiplication/Division** | **Chapter 8.OAT.4**  
3.OAT.1 Understand the meaning and relationship of multiplication and division (3.OA.1,2,6)  
Chapter 3.1, 3.2, 6.2, 6.3, 6.4, 6.7  
Chapter 3.3, 3.5, 4.1, 4.2, 4.3, 9.4, 9.6, 9.8, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.9, 53, 54, 55  
Chapter 5.2, 7.8  
Chapter 3.6, 3.7, 4.4, 4.6, 8.9  
Chapter 1.12, 3.4, 4.10, 7.10, 7.11  
Chapter 1.12, 3.4, 4.10, 7.10, 7.11 |
| **Problem Solving** | **Chapter 8.OAT.4**  
3.OAT.5 Solve two-step word problems using the four basic operations and estimate to check (3.OA.8)  
Chapter 3.1, 3.2, 6.2, 6.3, 6.4, 6.7  
Chapter 3.3, 3.5, 4.1, 4.2, 4.3, 9.4, 9.6, 9.8, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.9, 53, 54, 55  
Chapter 5.2, 7.8  
Chapter 3.6, 3.7, 4.4, 4.6, 8.9 |
| **Factors** | **Chapter 8.OAT.4**  
4.OAT.1 Memorize and fluently multiply using the multiplication facts through 12  
Chapter 2.1, 2.2, 2.9, 2.12, 3.7, 4.3, 4.12 |
| **Patterns** | **Chapter 8.OAT.4**  
4.OAT.5 Generate and analyze number and shape patterns (4.OA.5)  
Chapter 5.6, 10.7 |
| **Numerical Expressions** | **Chapter 8.OAT.4**  
5.OAT.1 Write and interpret simple numerical expressions using parentheses, brackets, and braces (5.OA.1,2)  
Chapter 1.10, 1.11, 1.12 |
| **Factors** | **Chapter 8.OAT.4**  
5.OAT.2 Determine the least common multiple (LCM) and greatest common factor (GCF) of two numbers  
Chapter 9.5, 9.6, 9.7 |
| **Patterns** | **Chapter 8.OAT.4**  
5.OAT.3 Generate, identify the relationship, and graph ordered pairs using numerical patterns with two given rules (5.OA.3)  
Chapter 9.5, 9.6, 9.7 |
| **Assessments** | **Chapter 8.OAT.4**  
Written Assessments; Journal Entries; Class Discussions; Oral Reports; Visual and Virtual Models |

**Essential Question:** What do mathematical principles demonstrate about God?  
**Big Idea:** The consistency of mathematical principles continues to demonstrate the orderliness and precision of God.