**MATH STANDARDS: REQUIRED FLUENCIES AND CLUSTERS**

**3**

A PACIFIC UNION CONFERENCE CORRELATION OF NAD AND CCSS

Required fluencies are the skills to be mastered at this level. Clusters define where students and teachers should spend a large majority of their time in order to meet the expectations of the standards. Each fluency/cluster is linked to the corresponding NAD and Common Core Standard. The teacher will notice the NAD Standards are summarized and the Common Core standards provide an extensive explanation of the standards.

**Color Key:** Major Clusters Supporting Clusters Additional Clusters

Common Core State Standards (CCSS) North American Division Standards (NAD)

| **Fluencies / Clusters** | | **Go Math Correlation** | **Assessment Dates** | | **Notes**  **(Struggling students, additional resources & ideas, etc.)** |
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| **Required**  **Fluencies** | Multiply and divide within 100 (Know single digit products from memory).  ([NAD 3.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 3.OA.7](http://www.corestandards.org/Math/Content/3/OA/)) | 3.3, 3.5, 4.1, 4.2, 4.3, 4.5, 4.8, 4.9, 5.3, 5.4, 5.5, 6.1, 6.5, 6.6, 6.8, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.9 |  |  |  |
| Add and subtract within 1,000.  ([NAD 3.NO.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 3.NBT.2](http://www.corestandards.org/Math/Content/3/NBT/)) | 1.4, 1.5, 1.6, 1.7, 1.9, 1.10, 1.11 |  |  |  |
| **NUMBERS AND OPERATIONS (NAD) / NUMBER AND OPERATIONS IN BASE TEN (CCSS)** | | | | | |
| Use place value understanding and properties of operations to perform multi-digit arithmetic.  ([NAD 3.NO.1-2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 3.NBT.1-3](http://www.corestandards.org/Math/Content/3/NBT/)) | | 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11 |  |  |  |
| **NUMBERS AND OPERATIONS (NAD) / NUMBER AND OPERATIONS – FRACTIONS (CCSS)** | | | | | |
| Develop understanding of fractions as numbers. ([NAD 3.NO.3-4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 3.NF.1-3](http://www.corestandards.org/Math/Content/3/NF/)) | | 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7 |  |  |  |
| **OPERATIONS AND ALGEBRAIC THINKING (NAD / CCSS)** | | | | | |
| Represent and solve problems involving multiplication and division.  ([NAD 3.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 3.OA.1-4](http://www.corestandards.org/Math/Content/3/OA/)) | | 3.3, 3.5, 4.1, 4.2, 4.3, 4.5, 4.8, 4.9, 5.3, 5.4, 5.5, 6.1, 6.5, 6.6, 6.8, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.9 |  |  |  |
| Understand properties of multiplication and the relationship between multiplication and division. ([NAD 3.OAT.1,4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 8.OA.5-6](http://www.corestandards.org/Math/Content/3/OA/)) | | 3.1, 3.2, 3.6, 3.7, 4.4, 4.6, 6.2, 6.3, 6.4, 6.7, 6.9 |  |  |  |
| Multiply and divide within 100.  ([NAD 3.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 3.OA.7](http://www.corestandards.org/Math/Content/3/OA/)) | | 3.3, 3.5, 4.1, 4.2, 4.3, 4.5, 4.8, 4.9, 5.3, 5.4, 5.5, 6.1, 6.5, 6.6, 6.8, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.9 |  |  |  |
| Solve problems involving the four operations, and identify and explain patterns in arithmetic.  ([NAD 3.OAT.5-7](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 3.OA.8-9](http://www.corestandards.org/Math/Content/3/OA/)) | | 1.1, 1.12, 3.4, 4.7, 4.10, 5.1, 7.10, 7.11 |  |  |  |
| **MEASUREMENT (NAD) / MEASUREMENT AND DATA (CCSS)** | | | | | |
| Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.  ([NAD 3.M.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Measurement.pdf)) ([CCSS 3.MD.1-2](http://www.corestandards.org/Math/Content/3/MD/)) | | 10.1, 10.2, 10.3, 10.4, 10.5, 10.7, 10.8, 10.9 |  |  |  |
| Geometric measurement: understand concepts of area and relate area to multiplication and addition.  ([NAD 3.M.4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Measurement.pdf)) ([CCSS 3.MD.5-7](http://www.corestandards.org/Math/Content/3/MD/)) | | 11.4, 11.5, 11.6, 11.7, 11.8 |  |  |  |
| Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. ([NAD 3.M.5](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Measurement.pdf)) ([CCSS 3.MD.8](http://www.corestandards.org/Math/Content/3/MD/)) | | 11.1, 11.2, 11.3, 11.9, 11.10 |  |  |  |
| **GEOMETRY (NAD / CCSS)** | | | | | |
| Reason with shapes and their attributes.  ([NAD 3.GEO.1-2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Geometry.pdf)) ([CCSS 3.G.1-2](http://www.corestandards.org/Math/Content/3/G/)) | | 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9 |  |  |  |
| **DATA ANALYSIS, STATISTICS, AND PROBABILITY (NAD) / MEASUREMENT AND DATA (CCSS)** | | | | | |
| Represent and interpret data.  ([NAD 3.DSP.1-2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Data%20Analysis%20Statistics%20and%20Probability.pdf)) ([CCSS 3.MD.3-4](http://www.corestandards.org/Math/Content/3/MD/)) | | 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 |  |  |  |