**MATH STANDARDS: REQUIRED FLUENCIES AT-A-GLANCE**

**K-8**

A PACIFIC UNION CONFERENCE CORRELATION OF NAD AND CCSS

Required fluencies in the standards mean “fast and accurate”. The word fluency was judiciously chosen to mark the end points of learning progressions that begin with solid underpinnings and then pass upward through growth stages to enable flow in the learning of essential standards. Required fluencies are the skills that must be mastered at each grade level.

| **Required Fluencies** |
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| **GRADE K** |
| Add and subtract within 5. ([NAD K.OAT.2, 4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS K.OA.5](http://www.corestandards.org/Math/Content/K/OA/)) |
| **GRADE 1** |
| Add and subtract within 10. ([NAD 1.OAT.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 1.OA.6](http://www.corestandards.org/Math/Content/1/OA/)) |
| **GRADE 2** |
| Add and subtract within 20. (Know single digit sums from memory). ([NAD 2.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 2.OA.2](http://www.corestandards.org/Math/Content/2/OA/)) |
| Add and subtract within 100. ([NAD 2.OAT.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 2.NBT.5](http://www.corestandards.org/Math/Content/2/NBT/)) |
| **GRADE 3** |
| 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/)) |
| 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/)) |
| **GRADE 4** |
| Add and subtract within 1,000,000. ([NAD 4.NO.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 4.NBT.4](http://www.corestandards.org/Math/Content/4/NBT/)) |
| **GRADE 5** |
| Multi-digit multiplication. ([NAD 5.NO.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 5.NBT.5](http://www.corestandards.org/Math/Content/5/NBT/)) |
| **GRADE 6** |
| Multi-digit division. ([NAD 6.NO.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 6.NS.2](http://www.corestandards.org/Math/Content/6/NS/)) |
| Multi-digit decimal operations. ([NAD 6.NO.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 6.NS.3](http://www.corestandards.org/Math/Content/6/NS/)) |
| **GRADE 7** |
| Add, subtract, multiply, and divide rational numbers. ([NAD 7.NO.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 7.NS.1-3](http://www.corestandards.org/Math/Content/7/NS/)) |
| Solve multi-step problems with positive and negative irrational numbers. ([NAD 7.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 7.EE.3](http://www.corestandards.org/Math/Content/7/EE/)) |
| Solve equations px + q = r and p(x + q) = r. ([NAD 7.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 7.EE.4](http://www.corestandards.org/Math/Content/7/EE/)) |
| **GRADE 8** |
| Solutions of one-variable linear equations where coefficients may be rational. ([NAD 8.OAT.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 8.EE.7](http://www.corestandards.org/Math/Content/8/EE/)) |
| Set of geometric measurement skills (volume of cones, cylinders, and spheres – includes seventh grade work in angle measure, area, surface area and volume). ([NAD 8.GEO.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Geometry.pdf)) ([CCSS 8.G.9](http://www.corestandards.org/Math/Content/8/G/)) |