**MATH STANDARDS: TEACHER RESOURCE**

**6**

A PACIFIC UNION CONFERENCE CORRELATION OF NAD AND CCSS

This resource provides the teacher with identification of fluencies/clusters to be taught, vocabulary necessary for student comprehension, as well as internet, app and print resources to support implementation of the Mathematics Standards.

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

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

| **Teacher Resources** |
| --- |
| **REQUIRED FLUENCIES (Skills to be mastered at this level)** |
| 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/)) |
| **NUMBERS AND OPERATIONS (NAD) / RATIOS AND PROPORTIONAL RELATIONSHIPS (CCSS)** |
| Understand ratio concepts and use ratio reasoning to solve problems. ([NAD 6.NO.5](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 6.RP.1-3](http://www.corestandards.org/Math/Content/6/RP)) |
| **NUMBERS AND OPERATIONS (NAD) / THE NUMBER SYSTEM (CCSS)** |
| Compute fluently with multi-digit numbers and find common factors and multiples. ([NAD 6.NO.1-2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 6.NS.2-4](http://www.corestandards.org/Math/Content/6/NS)) |
| Apply and extend previous understandings of numbers to the system of rational numbers. ([NAD 6.NO.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 6.NS.5-8](http://www.corestandards.org/Math/Content/6/NS)) |
| Apply and extend previous understandings of multiplication and division to divide fractions by fractions.([NAD 6.NO.4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 6.NS.1](http://www.corestandards.org/Math/Content/6/NS)) |
| **OPERATIONS AND ALGEBRAIC THINKING (NAD) / EXPRESSIONS AND EQUATIONS (CCSS)** |
| Apply and extend previous understandings of arithmetic to algebraic expressions.([NAD 6.OAT.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf); [NAD 6.NO.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 6.EE.1-4](http://www.corestandards.org/Math/Content/6/EE)) |
| Reason about and solve one-variable equations and inequalities. ([NAD 6.OAT.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 6.EE.5-8](http://www.corestandards.org/Math/Content/6/EE)) |
| Represent and analyze quantitative relationships between dependent and independent variables. ([NAD 6.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 6.EE.9](http://www.corestandards.org/Math/Content/6/EE)) |
| **GEOMETRY (NAD / CCSS)** |
| Solve real-world and mathematical problems involving area, surface area, and volume.([NAD 6.GEO.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Geometry.pdf)) ([CCSS 6.G.1-4](http://www.corestandards.org/Math/Content/6/G)) |
| **DATA ANALYSIS, STATISTICS, AND PROBABILITY (NAD) / STATISTICS AND PROBABILITY (CCSS)** |
| Develop understanding of statistical variability. ([NAD 6.DSP.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Data%20Analysis%20Statistics%20and%20Probability.pdf)) ([CCSS 6.SP.1-3](http://www.corestandards.org/Math/Content/6/SP)) |
| Summarize and describe distributions. ([NAD 6.DSP.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Data%20Analysis%20Statistics%20and%20Probability.pdf)) ([CCSS 6.SP.4-5](http://www.corestandards.org/Math/Content/6/SP)) |
| **MATH TARGET VOCABULARY** |
| absolute valueassociativeassociative propertybasecoefficientcommutative propertyConversion Factordependent variabledimensionsdistributiondistributive propertyequivalent ratioexponent | greatest common factor (GCF)histogramidentity propertyindependent variableinequalityintegersinterquartile range (IQR)least common multiple (LCM)maximummean absolute deviation (MAD)mean box plotsmeasure of centermedian | minimummultiplicative inversepercentpercentquadrant(s) I, II, III, IVquartile(s) 1st, 2nd, 3rdratiorational numbersurface areatape diagramterms/like termsunit ratevariable |
| **INTERNET RESOURCES** |
| **Symbaloo** – Set up by the Pacific Union Conference, contains links to various Common Core resources including: general overview, teaching resources, assessment links, and parent resources; [www.symbaloo.com/mix/mathccresources-sda](http://www.symbaloo.com/mix/mathccresources-sda). |
| **Adapted Mind** – Is a website with sample lessons, videos, and unlimited math practice for Grades 1 to 6. Membership is $9.95/month and includes 5 students. 30 day free trial available; [www.adaptedmind.com](http://www.adaptedmind.com). |
| **CCSS Math** – Includes a collection of resources for every Common Core standard at every grade level. Each grade level’s page has links to an extensive variety of resources. Resources include blackline masters, instructional videos, and entire lesson plans; <https://ccssmath.org/?page_id=65>.  |
| **Discovery Education Math Common Core Wiki** – Is a good resource page for teachers of all grade levels to become familiar with the common core and its learning targets. Includes “I Can” statements; [http://demathacademy.wikispaces.com/Page+1](http://demathacademy.wikispaces.com/Page%2B1).  |
| **Engage NY** – Provides curriculum lessons for grades K-8 correlated to Common Core by grade level and topic, in addition to many other Common Core Resources filtered by subject, grade level and resource. Use the Common Core Hat dropdown menu to find Common Core Assessments with access to annotated test questions and answers for grades 3-8; [www.engageny.org/ccss-library](http://www.engageny.org/ccss-library).  |
| **Howard County Wiki** – Is a website with teaching activities, live links to online videos, and a year overview pacing guide for grades K-6. Website includes challenge activities as well as remediation and assessment. Grades 7-8 are still under development; [https://smart.wikispaces.hcpss.org/Grade+6](https://smart.wikispaces.hcpss.org/Grade%2B6).  |
| **Illustrative Mathematics** – Provides sample problems and illustrations for each standard; [www.illustrativemathematics.org/standards/k8](http://www.illustrativemathematics.org/standards/k8). |
| **Inside Mathematics** – Includes resources categorized by grade level and domain. Resources include .pdf blackline copies of lesson plans & student sheets, videos, MARS tasks, and problems of the month. Particularly useful for gifted students. This site also includes information and videos about implementing the Common Core standards for mathematical practice; [www.insidemathematics.org/common-core-resources/mathematical-content-standards/standards-by-grade/6th-grade](http://www.insidemathematics.org/common-core-resources/mathematical-content-standards/standards-by-grade/6th-grade).  |
| **Internet 4 Classrooms CCSS Home Page** – Is a website that has printables, assessments, links, homework help, training for teachers, and technology skills by grade level for each of the standards; [www.internet4classrooms.com/common\_core/index.htm](http://www.internet4classrooms.com/common_core/index.htm).  |
| **Khan Academy** – Provides online practice activities for students by CCSS number. Includes explanation video for each standard; [www.khanacademy.org/commoncore/grade-6-G](http://www.khanacademy.org/commoncore/grade-6-G).  |
| **Live Binders CCSS for Math** – Is a clearinghouse website with extensive resources for each CCSS standard, including links, downloads, reviews of resources such as mobile apps; [www.livebinders.com/play/play/187117](http://www.livebinders.com/play/play/187117).  |
| **North Carolina Mathematics Wiki** – Gives a variety of resources for 6th grade in relationship to the common core and more links to other sites; [http://maccss.ncdpi.wikispaces.net/Sixth+Grade](http://maccss.ncdpi.wikispaces.net/Sixth%2BGrade).  |
| **Opus Math** – Is a worksheet generator by standard for all grade levels. Opus is strongest in grades 7 and 8, but has a growing collection of problems outside those grades; [www.opusmath.com](http://www.opusmath.com). |
| **Share my Lesson** – Has lessons organized by standard that were created by teachers for teachers. Join for free to access lessons; [www.sharemylesson.com/article.aspx?storyCode=50005640](http://www.sharemylesson.com/article.aspx?storyCode=50005640).  |
| **Teaching Channel** – Provides hundreds of videos for instructional support including Common Core. Search by subject, grade level and/or topic; [www.teachingchannel.org/videos?page=1&categories=grades\_6,topics\_common-core&load=1](http://www.teachingchannel.org/videos?page=1&categories=grades_6,topics_common-core&load=1).  |
| **APP RESOURCES** |
| ***Common Core Library*** by WAGmob is a free iPhone/iPad app that lists all of the standards and includes links to math activities and assessments by grade level. Links to grade level activities are available for $1.99. |
| ***Hands on Equations 1*** by Hands on Equations is a iPhone/iPad app that uses virtual game pieces to demystify complex algebraic concepts. Proven to help students gain confidence with algebra. Try the free lite version. Full version is $3.99. |
| **PRINT RESOURCES** |
| ***The Common Core: Clarifying Expectations for Teachers & Students****,* published by McGraw-Hill, has flipbooks for each grade level which include “I Can” statements, activities, and assessments for each standard. Each flipbook costs approximately $15.00. Available at: [www.mheonline.com/aaa/index.php?page=flipbooks&cur=MathPage](http://www.mheonline.com/aaa/index.php?page=flipbooks&cur=MathPage). |