**MATH STANDARDS: TEACHER RESOURCES**

**5**

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** | | |
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| **REQUIRED FLUENCIES (Skills to be mastered at this level)** | | |
| 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/)) | | |
| **NUMBERS AND OPERATIONS (NAD) / NUMBER AND OPERATIONS IN BASE TEN (CCSS)** | | |
| Understand the place value system. ([NAD 5.NO.1-2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 5.NBT.1-4](http://www.corestandards.org/Math/Content/5/NBT/)) | | |
| Perform operations with multi-digit whole numbers and with decimals to hundredths. ([NAD 5.NO.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 5.NBT.5-7](http://www.corestandards.org/Math/Content/5/NBT/)) | | |
| **NUMBERS AND OPERATIONS (NAD) / NUMBER AND OPERATIONS – FRACTIONS (CCSS)** | | |
| Use equivalent fractions as a strategy to add and subtract fractions. ([NAD 5.NO.4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 5.NF.1-2](http://www.corestandards.org/Math/Content/5/NF/)) | | |
| Apply and extend previous understandings of multiplication and division to multiply and divide fractions.  ([NAD 5.NO.4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 5.NF.4-7](http://www.corestandards.org/Math/Content/5/NF/)) | | |
| **OPERATIONS AND ALGEBRAIC THINKING (NAD / CCSS)** | | |
| Write and interpret numerical expressions. ([NAD 5.OAT.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 5.OA.1-2](http://www.corestandards.org/Math/Content/5/OA/)) | | |
| Analyze patterns and relationships. ([NAD 5.OAT.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 5.OA.3](http://www.corestandards.org/Math/Content/5/OA/)) | | |
| **MEASUREMENT (NAD) / MEASUREMENT AND DATA (CCSS)** | | |
| Convert like measurement units within a given measurement system. ([NAD 5.M.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Measurement.pdf)) ([CCSS 5.MD.1](http://www.corestandards.org/Math/Content/5/MD/)) | | |
| Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.  ([NAD 5.M.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Measurement.pdf)) ([CCSS 5.MD.3-5](http://www.corestandards.org/Math/Content/5/MD/)) | | |
| **GEOMETRY (NAD / CCSS)** | | |
| Graph points on the coordinate plane to solve real-world and mathematical problems. ([NAD 5.GEO.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Geometry.pdf)) ([CCSS 5.G.1-2](http://www.corestandards.org/Math/Content/5/G/)) | | |
| Classify two-dimensional figures into categories based on their properties. ([NAD 5.GEO.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Geometry.pdf)) ([CCSS 5.G.3-4](http://www.corestandards.org/Math/Content/5/G/)) | | |
| **DATA ANALYSIS, STATISTICS, AND PROBABILITY (NAD) / MEASUREMENT AND DATA (CCSS)** | | |
| Represent and interpret data. ([NAD 5.DSP.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Data%20Analysis%20Statistics%20and%20Probability.pdf)) ([CCSS 5.MD.2](http://www.corestandards.org/Math/Content/5/MD/)) | | |
| **MATH TARGET VOCABULARY** | | |
| 1st quadrant  axis (x and y)  braces  brackets  calculate  category  computation  conversion/convert  coordinate plane  coordinate system  cubic unit  distributive property  equivalent fraction (simplest/reduced)  exponents | expression  formula  gaps  hierarchy  horizontal  hours  intersection of lines  kite  line plot  metric measure  minutes  operation  ordered pairs  origin | overlaps  parenthesis  partitioning  rectangular arrays  right rectangular prism  seconds  solid figure  subcategory  thousandths  unit fractions  vertical  volume |
| **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=63>. | | |
| **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>. | | |
| **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+5>. | | |
| **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/5th-grade](http://www.insidemathematics.org/common-core-resources/mathematical-content-standards/standards-by-grade/5th-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). | | |
| **K-5 Math Teaching Resources** – Provides examples of 5th grade number activities aligned with the Common Core State Standards. All activities are suitable for use in Math Centers, small group or whole class settings and are designed to elicit a range of responses and provide opportunities for students to communicate their reasoning and mathematical thinking;  [www.k-5mathteachingresources.com/5th-grade-number-activities.html](http://www.k-5mathteachingresources.com/5th-grade-number-activities.html). | | |
| **Khan Academy** – Provides online practice activities for students by CCSS number. Includes explanation video for each standard; [www.khanacademy.org/commoncore/grade-5-G](http://www.khanacademy.org/commoncore/grade-5-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 5th grade in relationship to the common core and more links to other sites; <http://maccss.ncdpi.wikispaces.net/Fifth+Grade>. | | |
| **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=50005629](http://www.sharemylesson.com/article.aspx?storyCode=50005629). | | |
| **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\_5,topics\_common-core&load=1](http://www.teachingchannel.org/videos?page=1&categories=grades_5,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. | | |
| ***Splash Math – Grade 5***by StudyPad, Inc. is a fun and innovative way to practice math. With 9 chapters covering an endless supply of problems, it is by far the most comprehensive math workbook in the app store for iPhone/iPad. It costs $9.99 but covers the Common Core standards, has cross-platform accessibility, insightful performance reports, and kids love it! In app option to purchase grade levels 1-5. | | |
| **PRINT RESOURCES** | | |
| ***CenterSOLUTIONS for the Common Core Task Cards*** reinforce the Common Core State Standards for language arts and math. Each write-on/wipe-away card contains critical thinking activities that promote active learning for Common Core success. The cards are perfect for centers and learning stations, individualized instruction or skill differentiation, math and reading journals, etc. One set of 100 task cards costs approximately $15.00. Available at: [www.carsondellosa.com/products/140337\_\_Task-Cards-Learning-Cards-140337](http://www.carsondellosa.com/products/140337__Task-Cards-Learning-Cards-140337). | | |
| 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). | | |