**Overview:** *The overview statement is intended to provide a summary of major themes in this unit.*

This unit extends the work that was done in Prekindergarten with numbers up to 10. Students in Kindergarten are expected to rote count to 100 by ones and by tens. Emphasis in this unit is placed on the counting sequence. Students should also demonstrate the ability to count forward beginning from a given number writing the known sequence (instead of having to begin at 1), which is a prerequisite for counting on. In addition, students in Kindergarten will be expected to write numbers from 0-20 and to represent a number of objects with a written numeral 0-20, with 0 representing a count of no objects. Students will progress from saying the counting words to counting out objects and comparing numbers. This unit builds the foundation for students’ ability to count to find how many, and to model addition and subtraction with small sets of objects. It is the expectation that this unit will precede K.CC.4-7. Students should be provided multiple opportunities to connect number words and numerals to the quantities they represent, using various physical models and representations, games, and hands-on activities. It is important to note that counting should not be taught in isolation and should be reinforced daily throughout the school year.

**Teacher Notes:** *The information in this component provides additional insights which will help the educator in the planning process for the unit.*

* Review the Progressions for K, Counting and Cardinality; K–5, Operations and Algebraic Thinking at: <http://commoncoretools.files.wordpress.com/2011/05/ccss_progression_cc_oa_k5_2011_05_302.pdf> to see the development of the understanding of counting and number as stated by the Common Core Standards Writing Team, which is also the guiding information for the PARCC Assessment development.
* When implementing this unit, be sure to incorporate the Enduring Understandings and Essential Questions as the foundation for your instruction, as appropriate.
* Students should engage in well-chosen, purposeful, problem-based tasks. A good mathematics problem can be defined as any task or activity for which the students have no prescribed or memorized rules or methods, nor is there a perception by students that there is a specific correct solution method (Hiebert et al., 1997). A good mathematics problem will have multiple entry points and require students to make sense of the mathematics. It should also foster the development of efficient computations strategies as well as require justifications or explanations for answers and methods.
* Kindergartners typically know the 1-9 sequence and a bit beyond but often have difficulty identifying the counting patterns for decades (10, 20, 30) and transitions (for example, that 39 signals 40 next) (Baroody & Wilkins 1999).
* Reinforce oral counting, stable-order count, one-to-one correspondence, keeping track, and cardinality in day-to-day activities.
* Continue to develop number sense by reinforcing early number relationships. These early number relationships include but are not limited to anchors to 5 and 10, part-part-total, one more/two more/one less/two less, and spatial relationships. Students should see 5 as 4 and 1, 2 and 3, five ones, and so on.

**Enduring Understandings:** *Enduring understandings**go beyond discrete facts or skills. They focus on larger concepts, principles, or processes. They are transferable and apply to new situations within or beyond the subject.*

* Numbers and counting are a part of our everyday life.
* Numbers can represent quantity, position, location, & relationships.
* Numbers can also represent or identify labels. This concept is all over young children’s everyday lives (size of their pants – size 5, age 5; 5 on the keypad of a cell phone).
* Numbers can be represented using objects, words, and symbols.
* Counting finds out the answer to “how many” in objects/sets.
* Zero is the least whole number and there is no greatest number on the number line.

**Essential Questions:** *A question is essential when it stimulates multi-layered inquiry, provokes deep thought and lively discussion, requires students to consider alternatives and justify their reasoning, encourages re-thinking of big ideas, makes meaningful connections with prior learning, and provides students with opportunities to apply problem-solving skills to authentic situations.*

* What do numbers convey? (identify amount – cardinal; name position – ordinal; indicated location - nominal)
* How can numbers be expressed, ordered, and compared?
* What are different ways to count? (count all, count on, count back, skip count, count groups)
* What are efficient ways to count? (count up or back from largest number, count sets of items, count to/using landmark numbers)

**Content Emphasis by Cluster in Grade \_:** *According to the Partnership for the Assessment of Readiness for College and Careers (PARCC), some clusters require greater emphasis than others. The table below shows PARCC’s relative emphasis for each cluster. Prioritization does not imply neglect or exclusion of material. Clear priorities are intended to ensure that the relative importance of content is properly attended to. Note that the prioritization is in terms of cluster headings.*

Counting and Cardinality

* ***Know number names and the count sequence***
* Count to tell the number of objects.
* Compare quantities.

Operations and Algebraic Thinking

* Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Number and Operations in Base Ten

* Work with numbers 11-19 to gain foundations for place value.

Measurement and Data

* Describe and compare measurable attributes.
* Classify objects and count the number of objects in each category

Geometry

* Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
* Analyze, compare, create, and compose shapes.

**Focus Standards:** *(Listed as Examples of Opportunities for In-Depth Focus in the PARCC Content Framework documents for Grades 3-8)*

*According to the Partnership for the Assessment of Readiness for College and Careers (PARCC), this component highlights some individual standards that play an important role in the content of this unit. Educators from the State of Maryland have identified the following Standards as Focus Standards. Should PARCC release this information for Prekindergarten through Grade 2, this section would be updated to align with their list. Educators may choose to give the indicated mathematics an especially in-depth treatment, as measured for example by the number of days; the quality of classroom activities for exploration and reasoning, the amount of student practice, and the rigor of expectations for depth of understanding or mastery of skills.*

* **K.CC.A.1** Count to 100 by ones and by tens.
* **K.CC.A.2** Countforward beginning from a given number within the known sequence (instead of having to begin at 1).

**Possible Student Outcomes:** *The following list provides outcomes that describe the knowledge and skills that students should understand and be able to do when the unit is completed. The outcomes are often components of more broadly-worded standards and sometimes address knowledge and skills necessarily related to the standards. The lists of outcomes are not exhaustive, and the outcomes should not supplant the standards themselves. Rather, they are designed to help teachers “drill down” from the standards and augment as necessary, providing added focus and clarity for lesson planning purposes. This list is not intended to imply any particular scope or sequence.*

The student will:

* Count to 100 by tens and ones.
* Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
* Write numbers from 0 to 20.
* Represent a number of objects with a written number 0-20 (with 0 representing a count of no objects).
* Use concrete materials to model one-to-one correspondence when counting.

**Progressions from Common Core State Standards in Mathematics:** *For an in-depth discussion of the overarching, “big picture” perspective on student learning of content related to this unit, see:*

[**http://commoncoretools.files.wordpress.com/2011/05/ccss\_progression\_cc\_oa\_k5\_2011\_05\_302.pdf**](http://commoncoretools.files.wordpress.com/2011/05/ccss_progression_cc_oa_k5_2011_05_302.pdf)K, Counting and Cardinality; K–5, Operations and Algebraic Thinking

**Vertical Alignment:** *Vertical curriculum alignment provides two pieces of information: (1) a description of prior learning that should support the learning of the concepts in this unit, and (2) a description of how the concepts studied in this unit will support the learning of additional mathematics.*

* **Key Advances from Previous Grades:**

Students in Prekindergarten:

* Count verbally to 10 by ones.
* Recognize the concept of just after or just before a given number in the counting sequence up to 10.
* Identify written numerals 0-10.
* **Additional Mathematics:**

Students in grade 1:

* Extend the counting sequence to 120.
  + Extend the counting sequence to 120, starting at any number less than 120.
  + Read and write numerals and represent a number of objects with a written numeral.
  + Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Students in grade 2:

* + Extend counting to 1000, including skip-counting by 5s, 10s, and 100s.

**Possible Organization of Unit Standards:** *This table identifies additional grade-level standards within a given cluster that support the over-arching unit standards from within the same cluster. The table also provides instructional connections to grade-level standards from outside the cluster.*

|  |  |  |
| --- | --- | --- |
| **Over-Arching**  **Standards** | **Supporting Standards**  **within the Cluster** | **Instructional Connections outside the Cluster** |
| * **K.CC.A.1** Count to 100 by ones and by tens. |  | * **K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.   + **K.CC.B.4a** When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.   + **K.CC.B.4b** Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.   + **K.CC.B.4c** Understand that each successive number name refers to a quantity that is one larger. |
| **K.CC.A.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1). |  |  |
| * **K.CC.A.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). |  | * **K.CC.B.5** Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. |

**Connections to the Standards for Mathematical Practice:** *This section provides examples of learning experiences for this unit that support the development of the proficiencies described in the Standards for Mathematical Practice. These proficiencies correspond to those developed through the Literacy Standards. The statements provided offer a few examples of connections between the Standards for Mathematical Practice and the Content Standards of this unit. The list is not exhaustive and will hopefully prompt further reflection and discussion.*

***In this unit, educators should consider implementing learning experiences which provide opportunities for students to:***

1. **Make sense of problems and persevere in solving them.**
   1. Determine what the problem is asking for: next number in sequence, etc.
   2. Determine whether concrete or virtual models, pictures, mental mathematics, or equations are the best tools for solving the problem.
   3. Check the solution with the problem to verify that it does answer the question asked.
2. **Reason abstractly and quantitatively**
   1. Compare the counting of others with your own.
   2. Use number cards or concrete materials to model one-to-one correspondence when counting.
3. **Construct Viable Arguments and critique the reasoning of others.**
   1. Compare the numbers or models used by others with yours.
   2. Examine the steps taken that produce an incorrect response and provide a viable argument as to why the process produced an incorrect response.
   3. Use concrete models to verify the correct solution, when appropriate.
4. **Model with Mathematics**
   1. Construct visual models using concrete or virtual manipulatives, pictures, or equations to justify thinking and display the solution.
5. **Use appropriate tools strategically**
   1. Use Digi-Blocks, base ten blocks, counters, or other models, as appropriate.
   2. Use concrete models to verify computation.
6. **Attend to precision**
   1. Use mathematics vocabulary properly when discussing problems.
   2. Demonstrate accuracy and precision when counting.
   3. Correctly write and read numbers.
7. **Look for and make use of structure.**
8. Use the patterns of counting to verify the correct sequence.
9. Use the relationships demonstrated in the counting sequence to correctly count from a given number.
10. **Look for and express regularity in reasoning**
    1. Use the patterns illustrated in the counting sequence to count correctly.
    2. Use the relationships demonstrated in the concrete sets to make sense of counting.

**Content Standards with Essential Skills and Knowledge Statements and Clarifications:** *The Content Standards and Essential Skills and Knowledge statements shown in this section come directly from the Maryland State Common Core Curriculum Frameworks. Clarifications were added as needed. Educators should be cautioned against perceiving this as a checklist. All information added is intended to help the reader gain a better understanding of the standards.*

| **Standard** | **Essential Skills and Knowledge** | **Clarification** |
| --- | --- | --- |
| * **K.CC.A.1** Count to 100 by ones and by tens. | **Ability to use rote counting (e.g., simply reciting numbers in order with no meaning attached) to one hundred**  • **Ability to use verbal counting (e.g., meaningful counting employed in order to solve a problem, such as finding out how many are in a set. )**  • **Ability to use concrete materials to build sets, towers, or groups of ten, to make sense of counting by tens**  • **Ability to with or without manipulatives by ones or tens**  • **Ability to count using the hundreds chart or number line** | When counting by ones, students need to understand that the next number in the sequence is one more. When counting by tens, the next number in the sequence is “ten more” (or one more group of ten).  Instruction on the counting sequence should be scaffolded (e.g., 1-10, then 1-20, etc.).  Counting should be reinforced throughout the day, not in isolation.  Examples:   * + Count the number of chairs of the students who are absent.   + Count the number of stairs, shoes, blocks, items in the housekeeping center, etc.   + Counting groups of ten such as “fingers in the classroom” (ten fingers per student).   + When counting orally, students should recognize the patterns that exist from 1 to 100. They should also recognize the patterns that exist when counting by 10s. The inclusion of songs, games, and dramatic play should be part of the daily curriculum. |
| **K.CC.A.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1). | **Ability to initially use concrete materials, hundreds chart or number line to model counting from a given number other than 1**  • **Knowledge that counting is the process of adding 1 to the previous number** | * Students may need practice keeping track of items already counted in order to count correctly. Using objects such as ice trays or egg cartons, teachers can give students strategies to help keep track. * Initially when students count from a number other than one, such as seven, they may find it helpful to whisper one, two, three, four, five, six before counting from seven. * While it is important that students count forward from a specified number other than one, it is also recommended that they count backwards in the same way. Example: Start at 8 and count backwards. * Teachers should look for students’ ability to demonstrate **one-to-one correspondence** and provide ample opportunities for students to practice this skill, such as using large tweezers or salad tongs to pick up one object at a time.   C:\Users\nwinner\Pictures\tongs.jpg |
| * **K.CC.A.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). | **Ability to match a set with a number card that states its’ quantity**  • **Ability to build numbers with concrete materials and then write the numerals that represent those numbers**  • **Knowledge that zero represents an empty set** | Students should be given multiple opportunities to count objects and recognize that a number represents a specific quantity. Once this is established, students begin to read and write numerals (numerals are the symbols for the quantities). The emphasis should first be on quantity and then connecting quantities to the written symbols.   * A sample unit sequence might include:   1. Counting up to 20 objects in many settings and situations over several weeks.   2. Beginning to recognize, identify, and read the written numerals, and match the numerals to given sets of objects.   3. Drawing pictures to represent objects.   4. Writing the numerals to represent counted objects. * Since the teen numbers are not written as they are said, teaching the teen numbers as one group of ten and extra ones is foundational to understanding both the concept and the symbol that represents each teen number. For example, when focusing on the number “13,” students should count out thirteen objects using one-to-one correspondence and then use those objects to make one group of ten and three extra ones. Students should connect the representation to the symbol “13.” |

**Fluency Expectations and Examples of Culminating Standards:** *The Partnership for the Assessment of Readiness for College and Careers (PARCC)* has listed the following as areas where students should be fluent.

* **K.OA.B.5** Fluently add and subtract within 5.

**Evidence of Student Learning:** *The Partnership for the Assessment of Readiness for College and Careers (PARCC) has awarded the Dana Center a grant to develop the information for this component. This information will be provided at a later date. The Dana Center, located at the University of Texas in Austin, encourages high academic standards in mathematics by working in partnership with local, state, and national education entities.  Educators at the Center collaborate with their partners to help school systems nurture students' intellectual passions.  The Center advocates for every student leaving school prepared for success in postsecondary education and in the contemporary workplace.*

**Common Misconceptions:** *This list includes general misunderstandings and issues that frequently hinder student mastery of concepts regarding the content of this unit.*

* Believing you do not have to count each object once and only once.
* You ALWAYS have to start at 1.
* Zero is not a number.
* Skipping objects or recounting objects when counting a set of objects.
* Patterns in early counting sequence apply to all numbers. For example, one, two, three, four, five, six, seven, eight, nine, ten, 1 teen, 2 teen, 3 teen, etc.

**Interdisciplinary Connections:** *Interdisciplinary connections fall into a number of related categories:*

* *Literacy standards within the Maryland Common Core State Curriculum*
* *Science, Technology, Engineering, and Mathematics standards*
* *Instructional connection to mathematics that will be established by local school systems, and will reflect their specific grade-level coursework in other content areas, such as English Language Arts, reading, science, social studies, world languages, physical education, and fine arts, among others.*

|  |  |  |
| --- | --- | --- |
| **Available Model Lesson Plan(s)** | | |
| The lesson plan(s) have been written with specific standards in mind.  Each model lesson plan is only a MODEL – one way the lesson could be developed.  We have NOT included any references to the timing associated with delivering this model.  Each teacher will need to make decisions related ot the timing of the lesson plan based on the learning needs of students in the class. The model lesson plans are designed to generate evidence of student understanding.  This chart indicates one or more lesson plans which have been developed for this unit. Lesson plans are being written and posted on the Curriculum Management System as they are completed. Please check back periodically for additional postings. | | |
| **Standards Addressed** | **Title** | **Description/Suggested Use** |
| K.CC.A.3 | Writing Numbers from 0 to 20 | Students use concrete materials to model one-to-one correspondence when counting. They tell ‘how man’ are in a set of objects after counting them. They represent ‘how many’ by writing the numeral. |

|  |  |  |
| --- | --- | --- |
| **Available Lesson Seeds** | | |
| The lesson seed(s) have been written with specific standards in mind.  These suggested activity/activities are not intended to be prescriptive, exhaustive, or sequential; they simply demonstrate how specific content can be used to help students learn the skills described in the standards. Seeds are designed to give teachers ideas for developing their own activities in order to generate evidence of student understanding.  This chart indicates one or more lesson seeds which have been developed for this unit. Lesson seeds are being written and posted on the Curriculum Management System as they are completed. Please check back periodically for additional postings. | | |
| **Standards Addressed** | **Title** | **Description/Suggested Use** |
| K.CC.A.1 | Last Man Standing | Students play this game routine in which they count by ones to 5. The person who says ‘5’ sits down. The next person starts with ‘1’ again and play continues until there is only one person left standing. |
| K.CC.A.1  K.CC.A.2 | Nearby Teens Game | In this game, students put their number cards in order on the game board trying to get rid of all their cards while practicing counting teen numbers. |
| K.CC.A.2 | Pick a Number | Students begin counting from a randomly selected number and count until asked to stop. They then discuss the patterns they noticed and the tools that helped them count. |
| K.CC.A.2 | Put Them in Order | Student play a game in which they put their number cards in order on the game mat from least to greatest. |

**Sample Assessment Items:** *The items included in this component will be aligned to the standards in the unit and will include:*

* + *Items purchased from vendors*
  + *PARCC prototype items*
  + *PARCC public released items*
  + *Maryland Public release items*
  + *Formative Assessment*

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic** | **Standards Addressed** | **Link** | **Notes** |
| Assessing Reading of Numbers | K.CC.A | <http://www.illustrativemathematics.org/illustrations/450> | In a one-to-one setting, a student is shown the numbers from 1–10, one number at a time, in random order. The teacher asks, “what number is this?" |
| Assessing Sequencing Numbers | K.CC.A | <http://www.illustrativemathematics.org/illustrations/451> | Individual or small groups of students put number cards in the correct order |
| Finding the Numbers 0-5 or 5-10 | K.CC.A | <http://www.illustrativemathematics.org/illustrations/403> | Student pairs play a game in which they match a number rolled on a number cube to a number card, say the number name aloud, and turn the card over. |
| Five by Two | K.CC.A | <http://www.illustrativemathematics.org/illustrations/402> | Student pairs play a game in which they put the numbers 1-10 in order in a 5 by 2 array. |
| More and Less Handfuls | K.CC.A  K.CC.B  K.CC.C | <http://www.illustrativemathematics.org/illustrations/683> | Students work in pairs grabbing and comparing handfuls of manipulatives. They record their comparison on paper each time. |
| Teen Go Fish | K.CC.A | <http://www.illustrativemathematics.org/illustrations/454> | Student play ‘Go Fish’ matching pairs of teen numbers as they play. |
| Assessing Counting Sequences Part 1 | K.CC.A.1 | <http://www.illustrativemathematics.org/illustrations/448> | Assessment of counting skills for individual students |
| Choral Counting | K.CC.A.1 | <http://www.illustrativemathematics.org/illustrations/360> | Teacher uses a pointer and a large hundred chart to lead the class in choral counting. Eventually a student takes over the pointing as the students count. |
| Counting Circles | K.CC.A.1 | <http://www.illustrativemathematics.org/illustrations/359> | Students stand in circle and individually count around the circle. When the last number is said, all students clap and the student who said that number sits in the middle of the circle. This is repeated with the same or different sequences until all student are seated in the center of what was the circle. |
| Counting by Tens | K.CC.A.1 | <http://www.illustrativemathematics.org/illustrations/754> | Counting activity in which student clap as they count and become aware of the tens named in the counting process. This leads to counting by tens. |
| Assessing Counting Sequences Part 2 | K.CC.A.2 | <http://www.illustrativemathematics.org/illustrations/449> | Individual assessment in which the student names the number that comes after specific numbers named by the teacher. |
| Number After Bingo 1-15 | K.CC.A.2 | <http://www.illustrativemathematics.org/illustrations/373> | Students play a Bingo game in which they draw a card, name the number AFTER the number on the card, and then put a counter on the number named. |
| Number Line Up | K.CC.A.2 | <http://www.illustrativemathematics.org/illustrations/401> | Each student is given a number card. When the teacher says ‘Go’ the students line up in order from 1 to the largest number. Then each student says their number in order, beginning with 1, to check to see if they lined up correctly. |
| Pick a Number, Counting On | K.CC.A.2 | <http://www.illustrativemathematics.org/illustrations/927> | The teacher pick a random number within the known counting sequence and asks the class to count up ten from that number. |
| Start-Stop Counting | K.CC.A.2 | <http://www.illustrativemathematics.org/illustrations/361> | Students sit in a circle. The teacher begins a counting sequence as she walks around the outside of the circle. She stops and taps a student on the head. She sits in the students place and the student continues counting around the outside of the circle until the teacher signals her to tap a student and sit in their place. |
| “One More” Concentration | K.CC.A.2 | <http://www.illustrativemathematics.org/illustrations/980> | Students play concentration match two number which are one more and one less than each other (For example, 2 & 3 since 2 is one less than 3 and 3 is one more than 2.) |
| Assessing Writing Numbers | K.CC.A.3 | <http://www.illustrativemathematics.org/illustrations/452> | Students write the numbers said by the teacher in random order. |
| Number Tic Tac Toe | K.CC.A.3 | <http://www.illustrativemathematics.org/illustrations/400> | Students name and trace numbers on the game card as they play. |
| Race to the Top | K.CC.A.3 | <http://www.illustrativemathematics.org/illustrations/399> | Using a grid paper with the numbers 0 to 9 individually labeling each column at the bottom, students roll or spin a number and write it in the corresponding column on the grid paper. The continue play to see which number reaches the top of the grid paper first. |
| Rainbow Number Line | K.CC.A.3 | <http://www.illustrativemathematics.org/illustrations/398> | Students use colored crayons to trace the numbers 1 to 20 on sentence strips made by the teacher. They then use these as a reference at their desks. |
| Dice Addition | K.CC.A.3  K.OA.A.2 | <http://www.illustrativemathematics.org/illustrations/1224> | Students roll two dice, add the numbers, and trace the sum on a worksheet. Play continues until one of the numbers ‘wins’ by having its whole row traced. |

**Interventions/Enrichments:** *(Standard-specific modules that focus on student interventions/enrichments and on professional development for teachers will be included later, as available from the vendor(s) producing the modules.)*

**Vocabulary/Terminology/Concepts:** *This section of the Unit Plan is divided into two parts. Part I contains vocabulary and terminology from standards that comprise the cluster which is the focus of this unit plan. Part II contains vocabulary and terminology from standards outside of the focus cluster. These “outside standards” provide important instructional connections to the focus cluster.*

***Part I – Focus Cluster:***

***rote counting:*** reciting numbers in order from memory without aligning them to objects, pictures, etc.

***verbal counting:*** counting while aligning each number said to an object, picture, etc. in order to solve a problem.

***cardinality:*** is the understanding that when counting a set, the last number represents the total number of objects in the set. Example:

( 1 2 3 )

This is a set of 3stars.

***one-to-one correspondence:*** *linking a single number name with one object--and only one--at a time.*

***Part II – Instructional Connections outside the Focus Cluster***

***conservation of number:*** the ability to understand that the quantity of a set does not change, no matter how the objects of the set are displayed or moved around.

***subitizing:*** the ability to recognize the total number of objects or shapes in a set without counting. Example: Recognizing that this face of a cube has five dots without counting them.

**Resources:**

**Free Resources:**

* <http://wps.ablongman.com/ab_vandewalle_math_6/0,12312,3547876-,00.html> Reproducible blackline masters
* <http://lrt.ednet.ns.ca/PD/BLM_Ess11/table_of_contents.htm> mathematics blackline masters
* <http://yourtherapysource.com/freestuff.html> Simple activities to encourage physical activity in the classroom
* <http://www.mathsolutions.com/index.cfm?page=wp9&crid=56> Free lesson plan ideas for different grade levels
* <http://digiblock.com/> Lesson plans for using Digi-Blocks
* <http://sci.tamucc.edu/~eyoung/literature.html> links to mathematics-related children’s literature
* <http://www.nctm.org/> National Council of Teachers of Mathematics
* [www.k-5mathteachingresources.com](http://www.k-5mathteachingresources.com) Extensive collection of free resources, math games, and hands-on math activities aligned with the Common Core State Standards for Mathematics
* <http://elementarymath.cmswiki.wikispaces.net/Standards+for+Mathematical+Practice> Common Core Mathematical Practices in Spanish
* <http://mathwire.com/> Mathematics games, activities, and resources for different grade levels
* <http://www.counton.org/> Math games and resources.

**Math Related Literature:**

* Rogers, Jacqueline. Kindergarten Count to 100.

Notes: This book focuses on counting to 100 and on fun activities in and out of the Kindergarten classroom.

* Scarry, Richard. Richard Scarry’s Best Counting Book Ever.

Notes: Willy's Buuny’s father suggests that he practice counting all the things he sees, beginning with ONE BUNNY. Soon he finds more numbers everywhere. By the end of the day, Willy's gone all the way up to 100.

**References:**

* ------. 2000. *Principles and Standards for School Mathematics.* Reston, VA: National Council of Teachers of Mathematics.
* Arizona Department of Education. “Arizona Academic content Standards.” Web. 28 June 2010

<http://www.azed.gov/standards-practices/common-standards/>

* Bamberger, H.J., Oberdorf, C., Schultz-Ferrell, K. (2010). *Math Misconceptions: From Misunderstanding to Deep Understanding.*
* Baroody, A.J., & Wilkins, J.L.M. 1999. *The development of informal counting, number, and arithmetic skills and concepts. In Mathematics in the early years*, ed. J.V. Copley, 48-65. Reston, VA: NCTM; Washington, D.C.:NAEYC.
* Copley, J.(2011). *The Young Child and Mathematics*. Reston, VA: National Council of Teachers of Mathematics.
* Burns, M. (2007 ) *About Teaching Mathematics: A K-8 Resource*. Sausalito, CA: Math Solutions Publications.
* The Common Core Standards Writing Team (12 August 2011). *Progressions for the Common Core State Standards in Mathematics (draft), accessed at:* <http://commoncoretools.files.wordpress.com/2011/05/ccss_progression_cc_oa_k5_2011_05_302.pdf>
* North Carolina Department of Public Instruction. Web. February 2012. <http://www.ncpublicschools.org/acre/standards/common-core-tools/#unmath>
* Van de Walle, J. A., Lovin, J. H. (2006). *Teaching Student-Centered mathematics, Grades 3-5.* Boston, MASS: Pearson Education, Inc.