Unpacked South Dakota State Mathematics Standards

Purpose: *In order for students to have the best chance of success, standards, assessment, curriculum resources, and instruction must be aligned in focus, coherence, and rigor. Unpacked standards documents are intended to help align instruction to the focus, coherence, and rigor of the South Dakota State Mathematics Standards. The standards have been organized in clusters as they are not so much built from topics, but rather woven out of progressions. Not all content in a given grade is emphasized equally in the mathematics standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. To say that some things have greater emphasis is not to say that anything in the standards can safely be neglected in instruction. Neglecting standards will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade.*

Domain: Number and Operation in Base Ten		**Grade Level: 1**
1.NBT.A Cluster: Extend the Counting Sequence This cluster expands on previous work with reading, writing, counting and representing numbers to now include any number from 0-120.		
****This is a MAJOR cluster.** *Students should spend the large majority of their time (65-85%) on the major work of the grade. Supporting work and, where appropriate, additional work should be connected to and engage students in the major work of the grade.* **1.NBT.1** In the range of 0-120 **a.** Count on from any given number. **b**. Read and write numerals. **c**. Represent a number of objects with a written numeral.		
Aspects of Rigor: (Conceptual, Procedural, and/or Application)		
Conceptual Understanding	***Procedural Fluency***	***Application***
Understand that there is an order to numbers (sequence) when counting (**1.NBT.1.a)** Recognize that a number represents a given amount of objects (one to one correspondence) **(1.NBT.1.c)**	Count on from any given number working in a range from 0-120 **(1.NBT.1.a)** Read and write numerals, including a number that represents a given number of objects **(1.NBT.1.b)**	
Enacting the Mathematical Practices - Evidence of Students Engaging in the Practices		
1. **Make sense of problems and persevere in solving them.** ● Solve computation problems focused on developing strategies of tens and ones. ● Understand that in adding two-digit numbers, sometimes it is necessary to compose a 10. 2. **Reason abstractly and quantitatively.** ● Attending to the meaning of quantities, learners are deepening their understanding of tens and ones and the relationship between tens and ones ● Compare two-digit numbers by looking at and breaking apart the value of each digit in the tens place first, then the ones place 3. **Construct viable arguments and critique the reasoning of others.** ● Compare numbers and explain reasoning using place value language ● Explain reasoning used when mentally finding 10 more and 10 less 4. **Model with mathematics.** ● Use models to show number of objects with the corresponding numeral ● Use models to explain addition and subtraction of two-digit numbers 5. **Use appropriate tools strategically.**		

- Use a variety of manipulatives to build groups of tens and some more
- Use manipulatives to visually understand adding and subtracting within 100

6. **Attend to precision.**
   - Identify whether a single digit in a number signifies the amount of the tens or of the ones.
   - Name and write the numeral that corresponds with the number of objects in a group
7. **Look for and make use of structure.**
   - Recognize that numbers are composed of base ten units, focusing on tens and ones
8. **Look for and express regularity in repeated reasoning.**
   - Skip counting by tens from any multiple of 10 within 10-90

Vertical and Horizontal Coherence and Learning Progressions

Previous Learning Connections	***Current Learning Connections***	***Future Learning Connections***
Kindergarten learners count from 1 to 100 by ones and tens beginning with any number. They are able to read, write and represent objects with a range of numbers from 0-20. **(K.CC.1-3)**	When counting on, first grade learners are beginning to relate counting to addition. Counting requires additional focus as first grade learners deal with irregular patterns in counting such as teen numbers and decade numbers. (ie. fourteen and forty). This work contributes to the understanding of tens and ones with learners knowing that the two-digits in the two-digit number represent tens and ones. **(1.NBT.2) (1.OA.5)**	Second grade learners extend this work to skip count within 1000 (by 5's 10's and 100's). Using base ten numerals, number names, and expanded form, learners are reading and writing numbers within 1000. **(2.NBT.1-3)**

Vocabulary *(Key Terms Used by Teachers and Students in this Cluster):*

- Numerals
- Base Ten
- Place Value
- Ones/Tens/Hundreds

Relevance, Explanations, and Examples:

Written numeral - the number itself (3)
Number word- the number word (three)