

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 Base Ten		Grade Level: 1
1.NBT.B Cluster: Understand Place Value		
This cluster focuses on breaking apart two-digit numbers based on tens and ones. Using place value, learners can compare two-digit numbers.		
<p>**This is a MAJOR cluster. <i>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.</i></p> <p>1.NBT.2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> a. 10 can be thought of as a bundle of ten ones — called a “ten.” b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). <p>1.NBT.3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $<$, $=$, and $>$.</p>		
Aspects of Rigor: (Conceptual, Procedural, and/or Application)		
Conceptual Understanding	Procedural Fluency	Application
<p>A group of 10 ones is a unit called a “ten”. (1.NBT.2.a)</p> <p>The numbers from 11-19 are composed of a ten and 1,2,3,4,5,6,7,8,9 more. These quantities are represented by the two-digits of a two-digit number. (1.NBT.2.b)</p> <p>Decade numbers are understood as one group of 10, two groups of 10...9 groups of 10. (1.NBT.2.c)</p>		
	When comparing two-digit numbers, learners begin with the digit in the tens place and then move on to the ones place. (1.NBT.3)	

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

<u>Previous Learning Connections</u>	<u>Current Learning Connections</u>	<u>Future Learning Connections</u>
Kindergarten learners compose and decompose using ten ones and some more ones (K.NBT.1) Working with values between 1 and 10, learners can identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group and also compare two numbers between 1 and 10. (K.CC.6-7)	First grade learners apply the place value strategies of breaking apart numbers into tens and ones to help them add and subtract within 100 (1.NBT.4) (1.NBT.6) First grade learners use the concept of tens and ones to mentally find 10 more or 10 less (1.NBT.5)	Second grade learners are applying the place value concepts they've learned in First Grade to a larger range of numbers to include numbers to the 1000 place. (2.NBT.1-4)

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

- Place value
- Tens
- Ones
- Two-digit numbers
- Greater than >
- Less than <
- Equal to =

Relevance, Explanations, and Examples:

