

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: Counting and Cardinality		Grade Level: Kindergarten
K.CC.A Cluster: Know number names and the count sequence.		
This cluster is about rote counting. Once students can count, they begin to connect number words with counting quantities. This should be accomplished in small increments.		
<p>**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.</p> <p>K.CC.1 Count to 100 by ones and by tens.</p> <p>K.CC.2 Count forward beginning from any given number within 100 (instead of having to begin at 1). Count backwards beginning from any given number within 20.</p> <p>K.CC.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).</p>		
Aspects of Rigor for Student Learning: (Conceptual, Procedural, and/or Application)		
Conceptual Understanding	Procedural Fluency	Application
Understand the count-by-tens sequence can be used to know which decade is next in the counting sequence. (K.CC.1, K.CC.2)	Rote count to 100 by ones and by tens (K.CC.1)	
	Rote count forward beginning at any given number within 100 (K.CC.2) Rote count backwards from any given number within 20 (K.CC.2)	
Understand a number can represent a group of objects (K.CC.3)	Write numbers from 0-20 (K.CC.3) Teacher Note: Due to varied development of fine motor and visual development, reversal of numerals is anticipated. While reversals should be pointed out to students and correct formation modeled in instruction, the emphasis of this standard is on the use of numerals to represent quantities rather than the correct handwriting formation of the actual numeral itself.	

Enacting the Mathematical Practices - Evidence of Students Engaging in the Practices

1. **Make sense of problems and persevere in solving them.**
2. **Reason abstractly and quantitatively.**
3. **Construct viable arguments and critique the reasoning of others.**
4. **Model with mathematics.**
5. **Use appropriate tools strategically.**
 - Use hundreds charts, number lines, and other supports to learn the forward and backward number word sequence
6. **Attend to precision.**
 - Learners develop the vocabulary of counting and learn the number names
7. **Look for and make use of structure.**
 - Learners begin to use the pattern of ones and decades when verbally counting by ones
 - Learners will use their knowledge of the forward number sequence to count backward
8. **Look for and express regularity in repeated reasoning.**

Vertical and Horizontal Coherence and Learning Progressions

<u>Previous Learning Connections</u>	<u>Current Learning Connections</u>	<u>Future Learning Connections</u>
<p>Early childhood learning guidelines address:</p> <p>Count by ones to 10 and higher</p> <p>Recognize and name numerals 1 to 5</p> <p>Verbally count backward from 5</p>	<p>Learners in kindergarten will continue in the Counting and Cardinality domain to use counting to tell the number of objects (K.CC.4)</p> <p>Learners will continue to work with concepts of number meaning in the domains of Operations and Algebraic Thinking as well as Number and Operations in Base Ten.</p>	<p>These understandings developed in kindergarten will support the following learning in first grade:</p> <p>Extend the counting sequence, number recognition and writing to 120</p>

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

- Tens
- Ones
- Number names 1-100
- Number line
- Hundreds chart

Relevance, Explanations, and Examples:

While students are verbally practicing the forward and backward number sequence, visual supports such as a number line or hundreds chart may be supportive.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



