

# Breaking Down a Mathematics Standard

KAS: KY.K.CC.1

What is the domain/conceptual category/big idea? Counting & Cardinality

## Standards for Mathematical Practice

- MP.1. Make sense of problems and persevere in solving them.
- MP.2. Reason abstractly and quantitatively.
- MP.3. Construct viable arguments and critique the reasoning of others.
- MP.4. Model with mathematics.

- MP.5. Use appropriate tools strategically.
- MP.6. Attend to precision.
- MP.7. Look for and make use of structure.
- MP.8. Look for and express regularity in repeated reasoning.

Cluster: What is the broader understanding that the standard plays a role in building? Know number names and the count sequence.

Standards	Clarifications
<ul style="list-style-type: none"> <li>• Identify the target of the standard:                             <ul style="list-style-type: none"> <li>○ conceptual understanding</li> <li>✓ procedural skill/fluity</li> <li>○ application</li> </ul> </li> </ul> <p>Consider how the target of the standard will have an impact on instruction and assessment. (For more information, refer to p. 7, 10 and 15 of <i>KAS for Mathematics</i>.) <u>Students must apply procedures accurately, efficiently, flexibly and appropriately when counting by 1's and 10's.</u></p> <ul style="list-style-type: none"> <li>• What key mathematics should students know and be able to do?</li> <li>• <u>Students verbally count by 1's; 10's to 100.</u></li> <li>• <u>Students verbally count backwards by 1's from 30 to help make the connection to subtraction.</u></li> </ul>	<ul style="list-style-type: none"> <li>• What are the specific representations/strategies that will need to be considered when planning instruction? <u>It is important that all three aspects of number are taught: verbal, symbolic and quantitative.</u></li> <li>• What are the possible misconceptions that will need to be addressed during instruction?                             <ul style="list-style-type: none"> <li>• <u>Crossing the decades for example: 27, 28, 29, 30, 31</u></li> <li>• <u>Articulate the teen numbers</u></li> <li>• <u>Some might confuse the sequence of numbers or skip... if so start with a smaller number range</u></li> </ul> </li> <li>Coherence: Previous Grade → Current Standard → Upcoming Grade</li> <li>• How does this standard build off of prior learning?</li> <li>• How does this standard support future learning? <u>KY.1.NBT.1 is counting &amp; representing numbers to 120 forwards &amp; backwards.</u></li> <li>• How does this standard connect to other standards (or even other clusters or domains)? <u>Important for KY.K.CC.1, KY.K.CC.2, and KY.K.CC.3 be taught together to reach cluster.</u></li> </ul>

## Attending to the Standards for Mathematical Practice

- How are students engaging in the mathematical practices as they learn this content? (For more information, refer to p. 12-15 of *KAS for Mathematics*.)
- MP.7 Students look for the structure of 1's and 10's when counting forwards & backwards.
- MP.8 Students notice that 3 comes before 4 and therefore thirteen comes before fourteen, twenty-three comes before twenty-four ... students notice the repeated reasoning.