| Say counting numbers in the correct sequence from 1 to 20 attending to how teen numbers and vorded (see teacher note below) Say counting numbers in the correct sequence from 1 to 100 attending to the patterns of increasing by ones and tens (decade numbers) Say decade counting numbers in the correct sequence from 10 to 100 Teacher note: This standard does not require students to read or write numerals, only to verbalize them. While this standard only addresses rote counting, students may count along a number line to support for learning them, but there are quirks in the language. Fourteen, sixteen, sewnteen, eighteen, and nine. But three and fifteen are a little different. As a consequence, some children who have some insight at least into the patterns represented to the onumbers (3, 4, 9, 4, 9, and 5, 0, m). The most likely place for errors to court is when the counting tests on the numbers (4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4 | buy counting numbers in the concet sequence norm 2 to 20 | | |
|---|--|--|--|
| Say counting numbers in the correct sequence from 10 to 100 attending to the patterns of increasing by ones and tens (decade numbers) Say decade counting numbers in the correct sequence from 10 to 100 Teacher nots: This standard does not require students to read or write numerals, only to verbalize them. While this standard only addresses rote counting, students may count along a number line to support standard K.C.3. "Essentially, English-speaking children have so memorize the number names for numbers from 1 to 12. The teen numbers (13–19) have roots in the numbers from 3 to 9, which can provide some support for learning them, but there are quirks in the language. <i>Fourteen, sixteen, eighteen, and nine</i> text enses thally add <i>teen</i> (standing for ten) onto <i>four, six, seven, eighteen,</i> and <i>nine</i> texter essentially add <i>teen</i> (standing for ten) onto <i>four, six, seven, eighteen,</i> and <i>nine</i> texter essentially add <i>teen</i> (standing for ten) onto <i>four, six, seven, eighteen,</i> and <i>anime</i> texter can be applied. To count beyond 20, children may say "liveteen" insteaded of "fifteen". Interestingly, this seems to represent an attempt to make sense of counting rather than just memorize a rote sequence of meaningless words After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their Knowledge of counting from 1 to 9 for the numbers leased numbers (10, 30, 40, and so on). The most likely place for errors to occur is when the count gets to a new decade (<i>thirty-ten</i> rather than <i>forty</i>). Related Standards: Current Grade Level Related Standards: Current Grade Level Related Standards: Current Grade Level NBT.2 Count to 120 beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities Subdents may or may not have pre-kindergarten experience counting from 1-20 or beyond <l< th=""><th>• Say counting numbers in the correct sequence from 1 to 20 attendi</th><th>ng to how teen numbers are worded (see teacher note below)</th></l<> | • Say counting numbers in the correct sequence from 1 to 20 attendi | ng to how teen numbers are worded (see teacher note below) | |
| Say decade counting numbers in the correct sequence from 10 to 100 Teacher note: This standard does not require students to read or write numerals, only to verbalize them. While this standard only addresses rote counting, students may count along a number line to support Standard X.C.2.3. "Essentially, English-speaking children have to memorize the number names for numbers from 1 to 12. The teen numbers (13–19) have roots in the numbers from 3 to 9, which can provide some support for learning them, but there are quirks in the language. <i>Counteen, skteen, sevencen, eighteen</i>, and <i>inceen</i> essentially addresses rote counting for ten) onto <i>faur, six, seven, eight,</i> and <i>nine</i>. But thirdeen and <i>fifteen</i> are a little different. As a consequence, some children may say 'fiveteen' instead of 'fifteen.'' Interestingly, this seems to represent an attempt to make sense of counting sequence and may be made by children who have some insight at least into the patterns represented by the counting sequence and may be made by children who have some insight at least into the patterns represented by the counting sequence and may be made by children who have some insight at least into the patterns represented by the counting sequence and may be made by children who have some insight at least into the patterns represented by the counting sequence and may be made by children who have some insight at least into the pattern' into terestingly. As the numbers to a new decade numbers (10, 90, 40, all so on). The most likely place for errors to occur is when the count gets to a new decade (<i>hitry-ten</i> rather than just). The work likely place for errors to occur is when the count gets to a new decade (<i>hitry-ten</i> rather than just). The say fittely glace for errors to occur is when the count gets or leavy support the conceptual notion of groups on ten.'' (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). Young children's mathematics: Cagnitively guided instruction in early chil | • Say counting numbers in the correct sequence from 1 to 100 attending to the patterns of increasing by ones and tens (decade numbers) | | |
| Teacher note: This standard does not require students to read or write numerals, only to verbalize them. While this standard only addresses rote counting, students may count along a number line to support standard K.CC.3. "Essentially, English-speaking children have to memorize the number names for numbers from 1 to 12. The teen numbers (13–19) have roots in the numbers from 3 to 9, which can provide some support for learning them, but there are quirks in the language. Fourteen, site steen, such as y Six seven, eight and nine. But thirteen and fifteen are a little different. As a successcuence, some children may sup of fifteen are little different. As a successcuence, some children may sup of fifteen are little different. As a successcuence, some children may sup of fifteen are little different. As a successcuence of meaningless words After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for the numbers locate numbers (20, 30, 40, and so on). The most likely place for errors to occur is when the count gets to a new decade (hirty-tern rather than forty). As with the teams, then, than only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in sixty) is used in place of fern. There is a pattern, but the language does not clearly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turroy, A. C. 2016). Four grade taxet and the relationship between numbers and quantities. KCC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities. INBT.1 Count to 120 beginning with any number; read and write numerals and | • Say decade counting numbers in the correct sequence from 10 to 10 | 00 | |
| along a number line to support standard K.CC.3. "Essentially, English-speaking children have to memorize the number names for numbers from 1 to 12. The teen numbers (13–19) have roots in the numbers from 3 to 9, which can provide some support for learning them, but there are quirks in the language. Fourteen, sixteen, eighteen, and nineteen essentially add teen (standing for ten) onto four, six, seven, eight, and nine. But thirteen and fifteen are a little different. As a consequence, some children who have some insight at least into the patterns represented by the counting sequence and are trying to make some some of the counting sequence and may be made by children who have some insight at least into the patterns represented by the counting sequence and are trying to make some some of the counting sequence and and generative rules can be applied. To count beyond 20, children, weed only their knowledge of counting from 1 to 9 for the numbers leaves that 00, and so on). The most likely place for errors to occur is when the count gets to a new decade (thirty-ten rather than forty). As with the tens, twenty has only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in skryl) is used in place of ter. There is a pattern, but the language does not learly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). Young children's mathematics: Cognitively guided instruction in early childrond education. Protsmouth, NH: Heinemann. pp. 10–12) Related Standards: Current Grade Level NBT.2. Understand that two-digit numbers represent and write numerals and represent numbers with holicits within this range K.CC.4. Understand t | Teacher note: This standard does not require students to read or write nume | erals, only to verbalize them. While this standard only addresses rote counting, students may count | |
| "Esentially, English-speaking children have to memorize the number names for numbers from 1 to 12. The teen numbers (13–19) have roots in the numbers from 3 to 9, which can provide some support for learning them, but three are quirks in the language. <i>Fourteen, sixteen, sighteen,</i> and <i>initeen</i> essentially add <i>teen</i> (standing for <i>ten</i>) onto <i>four, six, seven, eight,</i> and <i>nine.</i> But <i>thirteen</i> and <i>iffteen</i> are a little different. As a consequence, some children may say "fiveteen" instead of "fifteen." Interestingly, this seems to represent an attempt to make some of counting rather than just memorize a rote sequence of meaningless words After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for the numbers between decade numbers (20, 30, 40, and so on). The most likely place for errors to occur is when the count gets to a new decade (<i>thirty-ten</i> rather than <i>fort</i> merrise a rote sequence of meaningless words As with the teens, twenty has only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in <i>sixty</i>) is used in place of fen. There is a pattern, but the language does not clearly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turou, A. C., & Wager, A. A. (2016). Young children's mathematics: Cognitively guided instruction in <i>early childhood education</i> . Portsmouth, NH: Heinemann. pp. 10–12) Related Standards: Current Grade Level K.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities NBT.2 Understand that two-digit numbers represent amounts of tens and ones 2.NBT.2 Understand that two-digit numbers represent amounts of tens and ones 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowl | along a number line to support standard K.CC.3. | | |
| which can provide some support for learning them, but there are quirks in the language. Fourteen, sixteen, sevencen, eighteen, and nineteen essentially add teen (standing for ten) onto four, six, seven, eight, and nine. But thirteen and fifteen are a little different. As a consequence, some children may say "fiveteen" instead of "fifteen." Interestingly, this seems to represent an attempt to make some sense of the counting sequence and may be made by children who have some insight at least into the patterns represented by the counting sequence and are trying to make sense of counting rather than just memorize a rote sequence of meaningless words After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for the numbers between decade numbers (20, 30, 40, and so on). The most likely place for errors to occur is when the count gets to a new decade (<i>thirty-ten</i> rather than <i>forty</i>). As with the teens, twenty has only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in skirty) is used in place of ten. There is a pattern, but the language does not clearly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N. C., Turrou, A. C., & Wager, A. A. (2016). <i>Young children's mathematics: Cognitively guided instruction in early childhood education.</i> Portsmouth, NH: Heinemann. pp. 10–12) Related Standards: Current Grade Level Related Standards: Future Grade Levels K.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities K.CC.4 Understand the relationship between pre- | "Essentially, English-speaking children have to memorize the number names | for numbers from 1 to 12. The teen numbers (13–19) have roots in the numbers from 3 to 9, | |
| ten) onto four, six, seven, eight, and nine. But thirteen and fifteen are a little different. As a consequence, some children may say "fiveteen" instead of "fifteen." Interestingly, this seems to represent an attempt to make some sense of counting rather than just memorize a rote sequence of meaningless words After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for the numbers between decade numbers (20, 30, 40, and son). The most likely place for errors to occur is when the count gets to a new decade (thirty-ten rather than forty). As with the teens, twenty has only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in sixty) is used in place of ten. There is a pattern, but the language does not clearly support the conceptual notion of groups on ten." (Carpetert, T. P., Franke, M. L., Johnson, N. C., Turrou, A. C., & Wager, A. A. (2016). Young children's mathematics: Cognitively guided instruction in early childhood education. Portsmouth, NH: Heinemann. pp. 10–12) Related Standards: Current Grade Level Related Standards: Future Grade Levels K.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities Critical Background Knowledge INBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within 110 strange Suggested Models Suggested Strategies Ocunt within 1.000; skip-count by fives, tens, and hundreds Critical Background Knowledge | which can provide some support for learning them, but there are quirks in the | ne language. Fourteen, sixteen, seventeen, eighteen, and nineteen essentially add teen (standing for | |
| this seems to represent an attempt to make some sense of the counting sequence and may be made by children who have some insight at least into the patterns represented by the counting sequence and are trying to make some of counting rather than just memorize a rote sequence of meaningless words After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for the numbers between decade numbers (20, 30, 40, and so on). The most likely place for errors to occur is when the count gets to a new decade (<i>thirty-ten</i> rather than <i>jotty</i>). As with the tens, twenty has only a sight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in <i>sixty</i>) is used in place of <i>ten</i> . There is a pattern, but the language does not clearly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). <i>Young children's mathematics: Cognitively guided instruction in early childhood education.</i> Portsmouth, NH: Heinemann. pp. 10–12) Related Standards: Current Grade Level K.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities Critical Background Knowledge O: Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models Suggested Models Suggested Strategies O: Count along a number song to help associate number sequence with familiar situations ("One, two, buckle my shoe," "One potato, two potato", "etc.) U be kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) O: Count along a number line C: Count along a number line C: Count alo | ten) onto four, six, seven, eight, and nine. But thirteen and fifteen are a little | e different. As a consequence, some children may say "fiveteen" instead of "fifteen." Interestingly, | |
| by the counting sequence and are trying to make sense of counting rather than just memorize a rote sequence of meaningless words After 20, thildren, need only to apply their knowledge of counting from 1 to 9 for the numbers between decade numbers (20, 30, 40, and so on). The most likely place for errors to occur is when the count gets to a new decade (<i>thirty-ten</i> rather than <i>forty</i>). As with the teens, twenty has only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in sixty) is used in place of <i>ten</i> . There is a pattern, but the language does not clearly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). <i>Young children's mathematics: Cognitively guided instruction in early childhood education.</i> Portsmouth, NH: Heinemann. pp. 10-12) Related Standards: Current Grade Level K.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities Critical Background Knowledge • Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models To count beyond twenty, students may use their understanding of decade numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" (CC.1 | this seems to represent an attempt to make some sense of the counting seq | uence and may be made by children who have some insight at least into the patterns represented | |
| After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for After 20, things start to make more sense and generative rules can be applied. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for As with the teens, twenty has only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade (httiry-ter rather than forty). As with the teens, twenty has only a slight resemblance to two, and thirty and fifty are marginally related to three and five. The other decade (httiry-ter rather than forty). As a constraining with a number other than one K.C.2 Count forward beginning with a number other than one K.C.2. Understand the relationship between numbers and quantities I.NBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within this range I.NBT.2 Understand that two-digit numbers represent amounts of tens and ones 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge Suggested Strategies Use a variety of numbers negs to help associate number Suggested Models Suggested Models Suggested Models Suggested Strategies Use a variety of numbers negs to help associate number sequence with familiar situations ("One, two, buckle my shoe," "One potato, two potato," etc.) Exit to any or any not ave decade numbers to continue the pattern of 'twenty-two,' twenty-two, | by the counting sequence and are trying to make sense of counting rather the | nan just memorize a rote sequence of meaningless words | |
| The number's detween decade numbers (20, 30, 40, and s0 n). The most likely place for for s0 dccurs when the count gets to a new decade numbers incorporate the corresponding number names of numbers less than 10, but -ty (as in sixty) is used in place of ten. There is a pattern, but the language does not clearly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). Young children's mathematics: Cognitively guided instruction in early childhood education. Portsmouth, NH: Heinemann. pp. 10–12) Related Standards: Current Grade Level Related Standards: Future Grade Levels K.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities I.NBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within this range I.NBT.2 Understand that relationship between numbers and quantities I.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge Suggested Models Suggested Models To count beyond twenty, students may use their understanding of decade numbers to continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern of counting to 1 | After 20, things start to make more sense and generative rules can be applied the numbers (20, 20, 40, and as an). The most like | d. To count beyond 20, children, need only to apply their knowledge of counting from 1 to 9 for | |
| As with the teels, wenty has only a sight testinbanto to two, and they also first an anginanty related to thread induce and nue. The other bother dearly support the conceptual notion of groups on ten." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). <i>Young children's mathematics: Cognitively guided instruction in early childhood education.</i> Portsmouth, NH: Heinemann. pp. 10–12) Related Standards: Current Grade Level Related Standards: Current Grade Level Related Standards: Future Grade Levels L.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities L.NBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within this range L.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models To count beyond twenty, students may use their understanding of decade numbers or ecognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-twe,' 'uenty-three,'" Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Counting with calendar routines C.CC.1 | As with the teens, twenty has only a clight recomblance to two, and thirty are | ely place for errors to occur is when the count gets to a new decade (<i>inity-terr</i> rather than <i>jorty</i>). | |
| Contragrammed named named named named and the start of the start | As with the teens, twenty has only a signification resemblance to two, and thirty and corresponding number names of numbers less than 10 but $-ty$ (as in size) is | s used in place of <i>ten</i> . There is a pattern, but the language does not clearly support the concentual | |
| early childhood education. Portsmouth, NH: Heinemann, pp. 10–12) Related Standards: Future Grade Levels Related Standards: Current Grade Level Related Standards: Future Grade Levels K.CC.2 Count forward beginning with a number other than one K.CC.4 Understand the relationship between numbers and quantities I.NBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within this range I.NBT.2 Understand the relationship between numbers and quantities I.NBT.2 Understand that two-digit numbers represent amounts of tens and ones 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge • Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models To count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-twe,' 'twenty-three,'" • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) • Count along a number line • Count along a number line • Count along a number line • Count along a number line <th>notion of groups on ten " (Carpenter T. P. Franke M. L. Johnson N.C. Turr</th> <th>Top A C & Wager A A (2016) Young children's mathematics: Cognitively guided instruction in</th> | notion of groups on ten " (Carpenter T. P. Franke M. L. Johnson N.C. Turr | Top A C & Wager A A (2016) Young children's mathematics: Cognitively guided instruction in | |
| Related Standards: Current Grade Level Related Standards: Future Grade Levels K.CC.2 Count forward beginning with a number other than one I.NBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within this range I.NBT.2 Understand the relationship between numbers and quantities I.NBT.2 Understand that two-digit numbers represent amounts of tens and ones Critical Background Knowledge Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models Suggested Strategies To count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Count along a number line Count along a hundreds chart Integrate counting with calendar routines Integrate counting with calendar routines | early childhood education. Portsmouth, NH: Heinemann, pp. 10–12) | | |
| K.CC.2 Count forward beginning with a number other than one 1.NBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within this range K.CC.4 Understand the relationship between numbers and quantities 1.NBT.1 Count to 120 beginning with any number; read and write numerals and represent numbers with objects within this range I.NBT.2 Understand that two-digit numbers represent amounts of tens and ones 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge | Related Standards: Current Grade Level | Related Standards: Future Grade Levels | |
| K.CC.4 Understand the relationship between numbers and quantities represent numbers with objects within this range I.NBT.2 Understand that two-digit numbers represent amounts of tens and ones 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge • Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models Suggested Strategies To count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' twenty-twe,' itwenty-three,'" • Use a variety of nursery rhymes and number songs to help associate number sequence with familiar situations ("One, two, buckle my shoe," "One potato, two potato," etc.) • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) • Count along a number line • Count along a hundreds chart • Integrate counting with calendar routines | K.CC.2 Count forward beginning with a number other than one | 1.NBT.1 Count to 120 beginning with any number; read and write numerals and | |
| 1.NBT.2 Understand that two-digit numbers represent amounts of tens and ones 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge • Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models To count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' twenty-two,' twenty-three,'" • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) • Count along a number line • Count along a number line • Count along a hundreds chart • Integrate counting with calendar routines | K.CC.4 Understand the relationship between numbers and quantities | represent numbers with objects within this range | |
| 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge • Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models Suggested Strategies To count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-three,'" • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Pattern, so 'twenty-one,' twenty-three,'" • Count along a number line • Count along a hundreds chart • Integrate counting with calendar routines | | 1.NBT.2 Understand that two-digit numbers represent amounts of tens and ones | |
| Critical Background Knowledge • Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models Suggested Strategies To count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" • Use a variety of nursery rhymes and number songs to help associate number sequence with familiar situations ("One, two, buckle my shoe," "One potato, two potato," etc.) pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Count along a hundreds chart • Integrate counting with calendar routines | | 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds | |
| Students may or may not have pre-kindergarten experience counting from 1–20 or beyond Academic Vocabulary count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100 Suggested Models Suggested Models Suggested Models Suggested Notes Suggested Notes Suggested Notes Suggested Notes Suggested Notes Suggested Notes Suggested Models Suggested Strategies Ocount beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Count along a hundreds chart Integrate counting with calendar routines (.CC.1 Count along a number line Count along a number line Count along a hundreds chart Integrate counting with calendar routines Count along a number line Supratice counting with calendar routines Count along a number line Count along a number line Count along a number line Count along | Critical Background Knowledge | | |
| Academic Vocabulary | Students may or may not have pre-kindergarten experience counti | ing from 1–20 or beyond | |
| count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, 70, 80, 90, 100), number names from 1 to 100Suggested ModelsSuggested StrategiesTo count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'"• Use a variety of nursery rhymes and number songs to help associate number sequence with familiar situations ("One, two, buckle my shoe," "One potato, two potato," etc.)• Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) • Count along a number line • Count along a hundreds chart • Integrate counting with calendar routines | Academic Vocabulary | | |
| Suggested ModelsSuggested StrategiesTo count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'"Use a variety of nursery rhymes and number songs to help associate number sequence with familiar situations ("One, two, buckle my shoe," "One potato, two potato," etc.)Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.)Count along a number line Count along a hundreds chart Integrate counting with calendar routines(.CC.1 | count, after, next, ones, tens, decade numbers (10, 20, 30, 40, 50, 60, | . 70, 80, 90, 100), number names from 1 to 100 | |
| To count beyond twenty, students may use their understanding of decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" Use a variety of nursery rhymes and number songs to help associate number sequence with familiar situations ("One, two, buckle my shoe," "One potato, two potato," etc.) Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Count along a hundreds chart Integrate counting with calendar routines | Suggested Models | Suggested Strategies | |
| decade numbers and ones to recognize and continue the pattern of counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Count along a hundreds chart Integrate counting with calendar routines | To count beyond twenty, students may use their understanding of | Use a variety of nursery rhymes and number songs to help associate number | |
| counting to 100. For example, a child may say, "I know that after the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Count along a hundreds chart Integrate counting with calendar routines | decade numbers and ones to recognize and continue the pattern of | sequence with familiar situations ("One, two, buckle my shoe," "One potato, two | |
| the teen numbers, I can use decade numbers to continue the pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) Count along a number line Count along a hundreds chart Integrate counting with calendar routines | counting to 100. For example, a child may say, "I know that after | potato," etc.) | |
| pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,'" Count along a number line Count along a hundreds chart Integrate counting with calendar routines | the teen numbers, I can use decade numbers to continue the | • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc.) | |
| Count along a hundreds chart Integrate counting with calendar routines | pattern, so 'twenty-one,' 'twenty-two,' 'twenty-three,' " | Count along a number line | |
| Integrate counting with calendar routines CC.1 | | Count along a hundreds chart | |
| <.CC.1 | | Integrate counting with calendar routines | |
| | K.CC.1 | | |

Counting and Cardinality Know number names and the counting sequence (Standards K.CC.1–3)

Concepts and Skills to Master

Standard K.CC.1. Count to 100 by ones and by tens.

Understand there is an ordered sequence of counting numbers
Say counting numbers in the correct sequence from 1 to 10

ADA Compliant 11/18/2019

Grade K

| Know number names and the counting sequence (Standards K.CC. | L-3) | |
|---|---|--|
| Standard K.CC.2. Count forward beginning from a given number w | ithin the known sequence (instead of having to begin at 1). | |
| Concepts and Skills to Master | | |
| • Understand there is an ordered sequence of counting numbers | | |
| • Say counting numbers in the correct sequence between 1 and 1 | 00, beginning at any number other than one | |
| | | |
| Teacher note: This standard does not require students to read or w | rite numerals, only to verbalize them. | |
| "Counting must be done by saying the number names in a fixed or | der. Thus, children not only need to learn the number names, they also need to | |
| understand the principle that counting numbers appear in a fixed s | equence. They also need to understand that numbers are not repeated in the counting | |
| sequence, and they have to learn the specific order of number nan | nes in that sequence. Young children may learn some of these features of counting before | |
| others. For example, some children may learn some number name | s, but not understand that the numbers follow a sequence. Other children may | |
| understand that numbers should follow a fixed sequence but not k | now what the correct sequence is." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, | |
| A. C., & Wager, A. A. (2016). Young children's mathematics: Cognit | ively guided instruction in early childhood education. Portsmouth, NH: Heinemann. p. 9) | |
| Delete d Step dender Connect Conde Level | lata d Stan dandar Futura Crada Laval | |
| Related Standards: Current Grade Level | elated Standards: Future Grade Level | |
| K.CC.1 Count to 100 by ones and by tens 1 . | NBI.1 Count to 120 beginning with any number; read and write numerals and represent | |
| K.C.4 Understand the relationship between numbers and numbers an | Impers with objects within this range | |
| quantities 1. | DA.5 Relate counting to addition and subtraction | |
| | DA.6 Add and subtract within 20 using strategies such as counting on | |
| 2. | DA.2 Fluently add and subtract within 20 using mental strategies such as counting on | |
| Critical Dackground Knowledge | NB1.2 Count within 1,000; skip-count by rives, tens, and hundreds | |
| | | |
| • Say counting numbers in the correct sequence from 1 to 20 attending to how teen numbers are worded (see teacher notes on K.CC.1) | | |
| • Say counting numbers in the correct sequence from 1 to 100 atte | nding to the patterns of increasing by ones and tens (K.CC.1) | |
| Academic Vocabulary | | |
| count, after, next, ones, counting on, number names from 1 to 100 | | |
| Suggested Models | Suggested Strategies | |
| I o count beyond twenty, students may use their understanding of | • Use kinesthetic and/or auditory cues while counting (clapping, jumping, whistles, etc. | |
| decade numbers and ones to recognize and continue the pattern | For example: Students start counting from three and clap on the decade numbers) | |
| of counting to 100. For example, a child may say, "I know that | • reacher supports counting by beginning the sequence for the students to provide the | |
| after the teen numbers, i can use decade numbers to continue the inst rew numbers (For example, if a child does not know what comes after "thirteen," | | |
| pattern, so twenty-one, twenty-two, "twenty-three,"" | The teacher prompts, ten, eleven, twelve, thirteen) | |
| | • Extend understanding by orally counting on from a given number to a target number | |

Core Guide

Grade K

Counting and Cardinality

Counting and Cardinality

Know number names and the counting sequence (Standards K.CC.1-3)

Standard K.CC.3. Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 represents a count of no objects).

Concepts and Skills to Master

• Recognize and write numerals 0 - 20

- Recognize that 0 represents a count of no objects
- Represent a number of objects with a written numeral, not necessarily counting to name the quantity

Teacher Note: "Due to varied development of fine motor and visual development, reversal of numerals is anticipated. While the 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 formations of the actual numeral itself." (<u>http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/kindergarten.pdf p. 5</u>)

"Helping children read and write the 10 single-digit numerals is similar to teaching them to read and write letters of the alphabet. Neither has anything to do with number concepts. Numeral writing does not have to be repetitious practice, but it can be engaging." (Van de Walle, J. A, Karp, K., & Bay-Williams, J. M. (2013). Elementary and middle school mathematics : teaching developmentally. 8th ed. / Boston: Pearson. pp. 132-133)

| Related Standards: Current Grade Level | | Related Standards: Future Grade Level |
|--|--|--|
| K.CC.1 Count to 100 by ones | | 1.NBT.1 Count to 120 beginning with any number; read and write numerals |
| K.CC.4 Understand the relationship between numbers and quantities; | | and represent numbers with objects within this range |
| connect counting to cardinality | | 2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number |
| K.CC.5 Use counting to answer questions about "how many" | | names, and expanded form |
| K.CC.7 Compare two numbers 1–10 represented as written numerals | | |
| Critical Background Knowledge | | |
| • Use a writing tool to reproduce or trace a given shape | | |
| Academic Vocabulary | | |
| number, numeral, number names zero to twenty, count, | represent, write | |
| Suggested Models | Suggested Strategi | es |
| | Write/reproduce | numerals in the air, in sand, in clay, on whiteboards, etc. |
| Match a counted set of objects with a numeral | Use the calculato | r for numeral recognition and to develop familiarity with numerals |
| | Practice writing the second sec | ne numerals from 0 to 20 in sequential and random order after teacher modeling |
| | Move between no | umber names, numerals, and pictured sets |
| | Identify a number | r between 1 and 20 on a number line or hundreds chart, then reproduce that |
| | number | |
| | • Lead the class to | count the objects in a set, then instruct the students to write the number of |
| 8 5 | objects counted | |
| | • Have student roll | a dot or number die and then record the number on paper (roll and write) |

| Counting and Cardinality | | Core Guide | Grade K |
|---|---|---|---------------|
| Count to tell the number of objects | (Standards K.CC. 4–5) | | |
| Standard K.CC.4. Understand the re | lationship between numbers | and quantities; connect counting to cardinality. | |
| a. When counting objects, say the numbers in the standard order. Pair each quantity of objects with one and only one number, and each number with the | | | with the |
| correct quantity of objects. | | | |
| b. Understand that the last number | said represents the number of | of objects counted. The number of objects is the same regardless of their arrange | ment or the |
| order in which they were counted. | | | |
| c. Understand that each successive | number refers to a quantity th | hat is one greater than the previous number. | |
| Concepts and Skills to Master | | | |
| Attend to one-to-one correspond | lence | | |
| • Count in the correct sequence as | objects are tagged | | |
| • Count to name the total amount | of the set | | |
| Know the last object counted nar | nes the number of objects in | a set | |
| Count in a way that all objects are | e included in the count (straig | th lines of objects are easier to count; however, over time students learn to keep | track of |
| items in a variety of patterns) | | | |
| Understand and state how many | objects there would be if the | set was increased by one | |
| Understand the number of object | ts in a set remains constant re | egardless of their arrangement or the order of the count | |
| Related Standards: Current Grade L | evel | Related Standards: Future Grade Levels | |
| K.CC.1 Count to 100 by ones | | 1.NBT.1 Count to 120 beginning with any number; read and write numerals an | d represent |
| K.CC.2 Count forward beginning from | om a given number | numbers with objects within this range | |
| K.CC.3 Read and write numerals 0 to 20 | | 1.OA.5 Relate counting to addition and subtraction | |
| K.CC.5 Use counting to answer questions about "how many" 1.OA.6a Add and subtract within 20 using strategies such as counting on | | | |
| K.CC.6 Use matching or counting st | rategies to compare groups | 2.0A.2a Fluently add and subtract within 20 using mental strategies such as co | ounting on |
| of objects | | 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds | |
| Critical Background Knowledge | | | |
| See Related Standards: Current Gr | ade Level | | |
| Academic Vocabulary | | | |
| set, numeral, number, number nam | es zero to twenty, quantity, g | reater, more, last, count on, equal | |
| Suggested Models | Suggested Strategies | | |
| | Move objects that have a | Iready been counted to keep track (color, slide, tap, drop and move objects while | counting) |
| | Arrange objects into a line | e, array, circle, etc. and then count | |
| The number 2 represents two objects. The number 3 represents | • Group objects and then count; for example, creating a group of ten and some more | | |
| three objects, which is one more than two. The number 4 represents four objects. which is one more than 3. etc. | Use tactile cards with numerals and quantity | | |
| | Reinforce that the last number name tells the count of objects by asking, "How many are there?" | | |
| | • Have the students count out 4 counters. Add one more counter to the set and ask how many now? (5) Follow-up by | | |
| | doing the process again, b | out do not add the counter ask "How many will there be if I add one more cou | nter? |
| Four circles are counted. The Fach set of squares has four | Demonstrate that each su | uccessive number has a greater value by using number cards that are quantified v | vith pictures |
| the total in the set. line arrangement (in a | • Start by counting objects | that are in a straight line and then move to other arrangements to demonstrate t | hat the |
| ine, array, or scattered). | number is the same regar | rdless of the order | |

| Counting and Cardinality | Core Guide | Grade K | |
|---|---|---|--|
| Count to tell the number of objects (Standards K.CC. 4–5) | | | |
| Standard K.CC.5. Use counting to answer questions about "h | how many." For example, 20 or fewer objects arranged in a line, a rectang | gular array, or circle; 10 | |
| or fewer objects in a scattered configuration. Using a number | or fewer objects in a scattered configuration. Using a number from 1–20, count out that many objects. | | |
| Concepts and Skills to Master | | | |
| • Count how many objects are in a given set from 1–20 in a v | variety of ways such as a line, an array or scattered pattern | | |
| • Count out a given number of objects from a larger set | | | |
| • Given a numeral 1–20, a student can count out a set to ma | tch the given numeral | | |
| The number of objects in a set remains constant regardless | s of their arrangement or the order of the count | | |
| Related Standards: Current Grade Level | Related Standards: Future Grade Levels | | |
| K.CC.1 Count to 100 by ones and by tens | 1.OA.5 Relate counting to addition and subtraction | | |
| K.CC.2 Count forward beginning from a given number | 1.OA.6 Add and subtract within 20 using strategies such as counting o | n | |
| K.CC.4 Understand the relationship between numbers and | 1.NBT.1 Count to 120 beginning with any number; read and write num | nerals and represent | |
| quantities | numbers with objects within this range | | |
| K.CC.6 Use matching or counting strategies to compare | 2.OA.2 Fluently add and subtract within 20 using mental strategies suc | ch as counting on | |
| groups of objects | 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds | | |
| Critical Background Knowledge | | | |
| Rote count to 20 by ones (K.CC.1) | | | |
| Use one-to-one correspondence (K.CC.4) | | | |
| Understand the relationship between numbers and quantities (K.CC.4) | | | |
| Academic Vocabulary | | | |
| count, set, objects, array, scattered, how many | | | |
| Suggested Models Suggested Models | Suggested Strategies | | |
| Ten and twenty frames | Provide opportunities for students to count out a certain number of obj | ects such as keys, | |
| Pictures | pompoms, pennies, or traditional counting manipulatives, moving object | ts as they count | |
| Tally marks | Number Talks: Discuss and create representations with dot cards, number talks. | er racks, ten frames, | |
| • Objects | twenty trames, etc. | | |
| | • Number of the Day. Create a set of objects from the named humber | | |
| Count sets of objects in various | | | |
| configurations. | | | |
| groups of objects 2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds Critical Background Knowledge 8 Rote count to 20 by ones (K.CC.1) Use one-to-one correspondence (K.CC.4) Understand the relationship between numbers and quantities (K.CC.4) Academic Vocabulary count, set, objects, array, scattered, how many Suggested Models Suggested Models Suggested Strategies • Ten and twenty frames • Provide opportunities for students to count out a certain number of objects such as keys, pompoms, pennies, or traditional counting manipulatives, moving objects as they count • Number Talks: Discuss and create representations with dot cards, number racks, ten frames, twenty frames, etc. • Number of the Day: Create a set of objects from the named number • Number of the Day: Create a set of objects from the named number • Number of the Day: Create a set of objects from the named number | | ects such as keys, :ts as they count per racks, ten frames, | |

Counting and Cardinality

Core Guide

Grade K

Identify and compare quantities of objects and numerals (Standards K.CC.6–7).

Standard K.CC.6. Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Include groups with up to ten objects.

Concepts and Skills to Master

- Match objects in two different groups to identify which group has a number of objects greater than, less than, or equal to the other
- Count objects in two different groups to identify which group has a number of objects greater than, less than, or equal to the other
- Identify if a group of ten or less has greater than, less than, or equal quantities to another group of ten or less
- Distinguish the difference between the meanings of more and less
- Recognize that a collection with a higher count has more things in it than a collection with a lower count

Teacher Note: Ensure that the size of objects in each group are identical. Students should not be expected to use or recognize the >, =, and < symbols when comparing numbers.

"Children have many opportunities to use the word *more*, but have limited exposure to the word *less*. To help children with the concept of *less*, frequently pair it with *more* and make a conscious effort to ask "Which is less?" questions as well as "Which is more?" questions. ... Children should construct sets using counters as well as make comparisons or choices (Which is less?) between two given sets." (Van de Walle, J. A, Karp, K., & Bay-Williams, J. M. (2013). *Elementary and middle school mathematics: teaching developmentally.* 8th ed. / Boston: Pearson. pp. 134)

| Related Standards: Current Grade Level | Related Standards: Future Grade Levels |
|---|--|
| K.CC.7 Compare two numbers between 1 and 10 presented as | 1.OA.1 Use addition and subtraction within 20 to solve word problems involving |
| written numerals using "greater than," "less than," or "equal to" | situations of comparing |
| K.MD.2 Directly compare two objects with a measurable attribute | 1.NBT.3 Compare two two-digit numbers using the >, =, and < symbols |
| in common, to see which object has "more of/less of" the attribute | 1.MD.4 Compare data with up to three categories by asking and answering questions |
| K.MD.3 Classify objects into given categories; count the numbers | about how many more or less are in one category than in another |
| of objects in each category and sort by count | 2.NBT.4 Compare two three-digit numbers using the >, =, and < symbols |
| Critical Deckground Knowledge | |

Critical Background Knowledge

• Understand the relationship between numbers and quantities; connect counting to cardinality (K.CC.4)

• Use counting to answer questions about "how many" (K.CC.5)

Academic Vocabulary

compare, more, more than, most, greater, greater than, less, less than, least, fewer, fewer than, equal, same as, set, group



Core Guide

Identify and compare quantities of objects and numerals (Standards K.CC.6–7).

Standard K.CC.7. Compare two numbers between 1 and 10 presented as written numerals using "greater than," "less than," or "equal to."

Concepts and Skills to Master

• Understand that two numerals between 1 and 10 represent quantities that can be compared

• Compare two written numerals (1-10) using greater than, less than or equal to

Teacher Note: Ensure that the size of objects in each group are identical. Students should not be expected to use or recognize the >, =, and < symbols when comparing numbers.

"Children have many opportunities to use the word *more*, but have limited exposure to the word *less*. To help children with the concept of *less*, frequently pair it with *more* and make a conscious effort to ask "Which is less?" questions as well as "Which is more?" questions." (Van de Walle, J. A, Karp, K., & Bay-Williams, J. M. (2013). *Elementary and middle school mathematics: teaching developmentally*. 8th ed. / Boston: Pearson. pp. 134)

| Related Standards: Current Grade Level | Related Standards: Future Grade Levels |
|---|---|
| K.MD.2 Directly compare two objects with a | 1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of |
| measurable attribute in common, to see which | comparing |
| object has "more of"/"less of" the attribute | 1.OA.7 Understand the meaning of the equal sign, and determine whether equations involving |
| K.CC.6 Use matching or counting strategies to | addition and subtraction are true and false |
| identify whether the number of objects in one group | 1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording |
| is greater than, less than, or equal to the number of | the results of comparison with the symbols >, =, < |
| objects in another group | 1.MD.4 Compare data with up to three categories by asking and answering questions about how |
| | many more or less are in one category than in another |
| | 2.NBT.4 Compare two three-digit numbers using the >, =, and < symbols |
| Critical Background Knowledge | |
| • Understand the relationship between numbers and | quantities; connect counting to cardinality (K.CC.4) |
| Use counting to answer questions about "how many | /" (K.CC.5) |
| • Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in | |
| another group (K.CC.6) | |
| Academic Vocabulary | |
| compare, more, more than, most, greater, greater tha | n, less, less than, least, fewer, fewer than, equal, same as, set, group, numeral |
| Suggested Models | Suggested Strategies |
| | • Use a number line or hundreds chart to visually compare two numbers between 1 and |
| 1 2 3 4 5 6 7 8 9 | 10 |
| | Use two number cards, dice, spinners, or number generators to compare numbers |
| between 1 and 10 (see model to the left) | |
| | • Quantify two numbers and compare quantities to determine which number is greatest |
| | |
| | |
| | |
| L | |

Additional Teacher Notes on Counting and Cardinality

Counting Principles:

- There is an ordered sequence of counting numbers, and numbers are always assigned to items in a collection in the same order starting with one.
- The one-to-one principle. Exactly one number from the counting sequence is assigned to each item in the collection.
- The cardinal principle. The last number in the counting sequence assigned to the collection represents the number of objects in the collection.

(Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). Young children's mathematics: Cognitively guided instruction in early childhood education. Portsmouth, NH: Heinemann. p. 9)

• Hierarchical Inclusion is the idea that numbers build by exactly one each time and nest within each other by this same amount.

• Subitize is to perceive up to four objects without doing any mathematical thinking.

(Fosnot, C.T. & Dolk, M. (2002). *Young mathematicians at work: Constructing number sense, addition, and subtraction*. Portsmouth, NH: Heinemann Press. pp. 35–36)

"The counting principles develop concurrently and in relation to children's experiences and existing understandings. The counting principles do not develop in a set order in the same ways for all children. This means that not all children will learn the counting sequence before understanding one-to-one correspondence or understand one-to-one correspondence before developing the cardinal principle. However, we do see that each and every child comes to preschool with some knowledge and understanding of counting. Finding out what children know requires first attending to each child and the range of counting principles and his use of counting." (Carpenter, T. P., Franke, M. L., Johnson, N.C., Turrou, A. C., & Wager, A. A. (2016). *Young children's mathematics: Cognitively guided instruction in early childhood education*. Portsmouth, NH: Heinemann. p. 34)