

# Unit 2 Connecting Counting to Cardinality

Content Area: **Mathematics**  
Course(s):  
Time Period: **Generic Time Period**  
Length: **4 weeks**  
Status: **Published**

## Standards

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MA.K.K.CC.A.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
LA.K.RF.K.3.C	Read high-frequency and sight words with automaticity.
MA.K.K.CC.A.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).
LA.K.SL.K.1.A	Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
LA.K.L.K.4.A	Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).
LA.K.SL.K.1.B	Continue a conversation through multiple exchanges.
MA.K.K.OA.A.5	Demonstrate fluency for addition and subtraction within 5.
LA.K.L.K.5	With guidance and support from adults, explore word relationships and nuances in word meanings.
LA.K.SL.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
LA.K.SL.K.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.
LA.K.L.K.5.C	Identify real-life connections between words and their use (e.g., note places at school that are colorful).
LA.K.SL.K.6	Speak audibly and express thoughts, feelings, and ideas clearly.
MA.K.K.CC.B.4a	When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
MA.K.K.CC.B.4b	Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
MA.K.K.CC.B.4c	Understand that each successive number name refers to a quantity that is one larger.
MA.K.K.CC.B.5	Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
CAEP.9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
LA.K.RI.K.1	With prompting and support, ask and answer questions about key details in a text.
LA.K.L.K.1.F	Produce and expand complete sentences in shared language activities.
MA.K.K.CC.C.6	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.

LA.K.RL.K.1	With prompting and support, ask and answer questions about key details in a text (e.g., who, what, where, when, why, how).
MA.K.K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.
SCI.K-2.5.2.2.A.a	Living and nonliving things are made of parts and can be described in terms of the materials of which they are made and their physical properties.
SCI.K-2.5.2.2.A.1	Sort and describe objects based on the materials of which they are made and their physical properties.
SCI.K-2.5.3.2.A.a	Living organisms: Exchange nutrients and water with the environment. Reproduce. Grow and develop in a predictable manner.
SCI.K-2.5.3.2.A.1	Group living and nonliving things according to the characteristics that they share.
SCI.K-2.5.3.2.B.a	A source of energy is needed for all organisms to stay alive and grow. Both plants and animals need to take in water, and animals need to take in food. Plants need light.
SCI.K-2.5.3.2.B.c	Most plants have roots to get water and leaves to gather sunlight.
SCI.K-2.5.3.2.B.3	Explain that most plants get water from soil through their roots and gather light through their leaves.

## **Essential Questions**

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How can you show, count and write the numerals 0-10?

How can you use two sets of objects to show different ways to show ways to make numbers 5-10?

How can you count forward to 10?

How can using models help you compare two numbers?

How can you use a matching counting strategy to compare sets?

How can you use a matching and counting strategy to solve problems?

How do you know if the number of counters in one set is the same as, greater than or less than the number of counters in another set?

## **Student Learning Objectives**

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### **Chapter 1**

SWBAT model and count 1,2,3,4,5 with objects.

SWBAT represent 1,2,3,4,5 with number names and written numerals.

SWBAT use objects or drawings to decompose numbers to 5 into pairs, showing the number in more than one way.

SWBAT show knowledge that each successive number refers to a quantity that is one larger.

SWBAT use problem solving using the strategy make a model.

SWBAT represent 0 objects with the number name and written numeral.

## **Chapter 2**

SWBAT use matching and counting strategies to compare sets of objects which have the same number of objects.

SWBAT use matching and counting strategies to compare sets when the number of objects in one set is greater than the number of objects in the other set.

SWBAT use matching and counting strategies to compare sets when the number of objects in one set is less than the number of objects in the other set.

SWBAT solve problems using a matching and counting strategy.

## **Chapter 3**

SWBAT model and count 6,7, 8, 9 with objects.

SWBAT represent up to 6,7,8, 9 objects with a number name and written numerals.

SWBAT solve problems by using the strategy draw a picture.

## **Chapter 4**

SWBAT model and count 10 with objects.

SWBAT represent up to 10 objects with a number name and a written numeral.

SWBAT use a drawing to make 10 from a given number.

SWBAT count forward to 10 from a given number.

SWBAT solve problems by using the strategy make a model.

SWBAT use counting strategies to compare sets of objects.

SWBAT compare two numbers between 1 and 10.

## **Materials**

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Achieve the Core:

<http://achievethecore.org/page/2853/go-math-k-5-guidance-documents>

Student Editions- Chapters 1-4

Teacher Edition- Chapters 1-4

Chapter Resources 1-4: School-Home Letter, Reteach and Enrich pages

Grab N Go Center Kit

Math on the Spot Video

Animated Math Models

iTools

Thinkcentral.com

manipulatives

## **Activities**

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Show What you know pages

Games-Bus Stop(chap 1): Counting to Blast off (chap 2): Number Line Up (chap 3): Spin and Count! (chap 4)

Problem of the Day-Daily Routines

Vocabulary Game- Number Words (chap 1): Bingo (chap 2): Picture it Chap 3): Memory (chap 4)

Vocabulary builder

Vocabulary Reader-Fall Festival! (chap 1):

Journal pages

On line Project-My Number Story

Lessons-5 E's-Engage, Explain, Explore, Elaborate, Evaluate

- 1.1- Model and count 1 and 2
- 1.2- Count and write 1 and 2
- 1.3-Model and count 3 and 4
- 1.4-Count and write 3 and 4
- Mid-Chapter checkpoint
- 1.5-Model and count to 5
- 1.6-Count and write to 5
- 1.7-Hands on:Algebra- Ways to make 5
- 1.8-Count and order to 5
- 1.9-Problem solving-understand 0
- 1.10-Identify and write 0
- 2.1- Same Number
- 2.2--Greater than
- 2.3-Less than
- Mid-Chapter checkpoint
- 2.4-Problem solving-Compare by matching sets to 5
- 2.5-Comparing by counting sets to 5
- 3.1-Model and count 6
- 3.2-Count and Write to 6
- 3.3-Model and count 7

- 3.4-Count and Write to 7
- Mid-Chapter checkpoint
- 3.5- Model and count 8
- 3.6- Count and write to 8
- 3.7-Model and count 9
- 3.8-Count and write to 9
- 3.9- Problem solving -Number to 9
- 4.1-Model and count 10
- 4.2- Count and write to 10
- 4.3-Ways to make 10
- 4.4-Count and order to 10
- Mid-Chapter checkpoint
- 4.5-Problem Solving-Compare by Matching sets to 10
- 4.6-Compare by counting sets to 10
- 4.7-Compare two numbers

Quick check pages

Groups

Practice and Homework pages

Show what you know

Diagnostic Interview Task

Digital Personal Math trainer

Lesson quick check

Mid-Chapter checkpoint

Chapter Review/Test

Chapter Test

Performance Assessment Task

## **Fact Fluency**

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Games-Student Edition

Fluency Standard Lessons-Student Edition

Fluency Builder-Teacher Edition

- number names
- comparing numbers by counting
- matching number sets
- counting forward to 10
- number word match
- order numbers
- dot count
- same number
- greater than
- recognize numbers

Strategies and Practices for Skills and Facts Fluency

Teacher Resource Book

HMH Mega Math

Personal Math Trainer: Standards Quizzes

Animated Math Models

Manipulatives

Calendar time

## **Accommodations and Modifications**

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Personal Math Trainer

Intervention Option

- on-level
- strategic
- intensive

Reteach pages

Enrich pages

Grab and Go Differentiated centers Kit

- Independent activities

ELL Strategies

Math on the Spot Video

Advanced learners activities

Leveled quizzes and tests

Leveled performance tasks

Animated Math models

