Fun with Numbers

Starfall Education Foundation
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Starfall
Kindergarten
MATHEMATICS

Fun with Numbers

Unit 3 • Overview

Week 5

Week 6

Frequently Asked Questions

Why does Starfall Math include Learning Centers only one day a week?

Kindergarten teachers spend nearly twice as much instructional time on reading compared with mathematics. This pattern continues in the typical school through at least fourth grade. The average math time allotment is between 45 and 60 minutes per day. Scheduling three or four learning centers per day, and allowing a minimum of ten minutes per center, results in 40 minutes for a class of 20 children or less not including transitional time, set up, and clean up. This leaves only ten minutes for group instruction and/or partner learning each day.

Starfall's remedy is to schedule four days of group and partner learning, including formative assessment activities, and to devote the fifth day to practicing skills learned each week, thereby providing enough time for the children to engage in their center activities while also providing the teacher with an opportunity to conduct formal summative assessments.

What does a Learning Center rotation entail?

The Learning Centers are designed to review and practice skills taught in the previous four daily sessions. They include two activities or games, a Teacher's Choice activity or game, a computer assignment from Starfall.com, and a teacher-directed activity that is combined with a summative assessment. The children rotate approximately every twelve to fifteen minutes. The Summative Assessment Center provides an opportunity to not only assess the children, but also to ask questions and determine on which developmental level each child is functioning for that particular skill. Checklists are provided to record results, observations, and anecdotal notes.

What kind of partner learning takes place during instructional time?

Instructional time begins with a whole group presentation. The children practice the concepts introduced and/or reviewed through activities using their Starfall Math Bags (which contain math manipulatives), whiteboards, and/or other hands-on math materials. The children often partner using a cooperative learning technique outlined in the lesson plans. Daily instructional time also includes formative assessments. Formative assessments are the key to creating the learning environment needed to meet individual children's needs and improve learning outcomes. During this formative assessment teachers observe children and ask open-ended questions, such as "Why?" or "How did you know?" questions. This information then informs any remediation that might need to take place either as a group or for individuals.

Unit 3 Research

Research supports the importance of incorporating learning centers into the curriculum for successful mathematics achievement.[1] Integrating math into other parts of the day, especially during learning center time, makes math meaningful and provides opportunities for children to practice what they have learned in a purposeful manner. When teachers coordinate their current math objectives with activities in the classroom, children reinforce their skills.[2] For instance, math games for learning centers in the Starfall classroom have been created to match current math objectives. These games build on children's math knowledge, provide a reason for learning skills and concepts, and supply repeated practice that is fun. Math games were found to have a positive influence on young children and their learning. A group of studies found that children who played number-based board games performed better in the domain of basic number concepts than those who played other types of board games or no board games.[3]

Math learning centers give children and teachers an opportunity to discuss strategies and ideas and generate excitement. The arrangement of construction materials (connect cubes, dice, dominoes, tiles, play dough, etc.) in learning centers encourages children to match and sort by color, shape, size, and other features, to count, and to practice one-to-one correspondence. They identify and reproduce shapes and patterns, form arrays, compose and decompose numbers, measure, estimate, and much more.

Active, appropriate use of computers in kindergarten supports and extends traditional learning materials.[4] The use of Starfall.com in the classroom computer centers is one of the tools children use to acquire knowledge and skills and solve math problems in interactive, open-ended learning activities. For example, research supports the use of computers to allow children to manipulate shapes with greater dexterity than they can manage by hand and to promote problem-solving.[5]

(1) National Research Council (2009). *Mathematics Learning in Early Childhood: Paths toward Excellence and Equity.* Washington, DC: National Academies Press.

(2) Curtis, R., Okamoto, Y. & Weckbacher, L. M. (2009). Preschoolers' use of count information to judge relative quantity. *Early Childhood Research Quarterly*, 24 (3), 325-336.

(3) Siegler, R.S., and Ramani, G. B. (2008). "Playing Linear Numerical Board Games promotes Low-income Children's Numerical Development," *Developmental Science,* 11:5, pp 655-661.

(4) National Association for the Education of Young Children and Fred Rogers Center for Early Learning and Children's Media (2012). Technology and interactive media as tools in early childhood programs serving children from birth through age 8: A joint position statement.

(5) Clements, D. H. (2002). Computers in early childhood mathematics. Contemporary Issues in Early Childhood, 3(2), 160–181.

Unit 3 Summary

Time Frame: 10 days

The children will become more familiar with one-to-one correspondence and learn to measure using nonstandard measurement tools. They will be introduced to polygons and sorting by attributes. They will also learn about ordinal numbers and their uses, and continue to develop graph interpretation skills through use of the daily Calendar Routine.

Unit 3 focuses on counting, measurement, shapes, sorting, and the numerals 0, 9, and 10 and what they represent.

Essential Questions

(K.CC.A.3) How can we use a numeral to show how many objects there are?

(K.MD.A.2) How can we use measurement to describe and compare objects?

(K.MD.B.3) Why is it important to know how to sort objects?

(K.G.A.1) How are shapes important and how are they used in our environment?

(Starfall.CC.5) What would happen if we didn't have ordinal numbers?

Enduring Understandings

Geometry helps us describe, represent, and make sense of our environment.

Shapes are everywhere. All objects have shapes with specific names.

Patterns can be extended.

All shapes with three (or more) straight lines that connect to each other are polygons.

When you measure you begin at a base line and finish measuring at the end of the object.

Numbers have order and help organize our world.

Objects can be sorted by similarities.

Vocabulary

The children will be introduced to these vocabulary words. Mastery is not expected at this time.

AABB Patterns	Fourth	Ordinal Numbers	Third
Attribute	Height	Polygon	Trapezoid
Baseline	Horizontally	Second	Vertically
Fifth	Mathematician	Shorter	
First	Measurement	Taller	

Recommended Literature

Albert the Muffin-Maker: Ordinal Numbers by Eleanor May

Beep Beep, Vroom Vroom! by Stuart J. Murphy

Henry the Fourth by Stuart J. Murphy

Measuring Penny by Loreen Leedy

Millions to Measure by David M. Schwartz

The Best Bug Parade by Stuart J. Murphy

Standards & Benchmarks

Progress on the following standards and benchmarks will be made through the course of this unit.
For your convenience, applicable learning outcomes are listed alongside each lesson in summary form.

Starfall Standards

Counting & Cardinality

CC.1	Identify numerals out of sequence.
CC.2	Supply missing number in a sequence.
CC.3	Count backward from a given number.
CC.5	Identify ordinal numbers.

Measurement & Data

MD.2	Use and interpret graphs.

Operations & Algebraic Thinking

OA.1	Identify, describe, or extend simple patterns.

Common Core Standards

Counting & Cardinality

		Inline Summary Form
A.1	Count to 100 by ones and by tens.	*Count to 100 by ones and by tens.*
A.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	*Count forward from a given number.*
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).	*Write numbers from 0 to 20.*
B.4	Understand the relationship between numbers and quantities; connect counting to cardinality.	*Understand the relationship between numbers and quantities.*
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.	*Say number names in order, pairing each object with one number.*
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.	*The last number counted tells the total number of objects.*
B.4c	Understand that each successive number name refers to a quantity that is one larger.	*Each successive number refers to one more.*
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.	*Identify greater than, less than, and equal to.*

Operations & Algebraic Thinking

		Inline Summary Form
A.1	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	*Represent addition and subtraction in a variety of ways.*
A.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	*Solve word problems with addition and subtraction within 10.*

Common Core Standards (Continued)

Number & Operations in Base Ten	Inline Summary Form
A.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	*Understand numbers 11-19 are ten ones plus more ones.*

Measurement & Data	Inline Summary Form
A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	*Describe measurable attributes of objects.*
A.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	*Compare two objects with a common measurable attribute.*
B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	*Classify, count, and sort objects.*

Geometry	Inline Summary Form
A.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	*Describe objects using shapes and relative positions.*
A.2 Correctly name shapes regardless of their orientations or overall size.	*Correctly name shapes.*
B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	*Build and/or draw shapes.*

Week 5 Summary

The children will be introduced to math equations, one-to-one correspondence, and the numerals 0, 9 and 10. They will review patterns and use their skills to create patterns of their own. The children will also:

- Become familiar with the time concepts of yesterday, today, and tomorrow
- Practice skip counting by fives and tens
- Solve story problems
- View the calendar as a graph that organizes information

Preparation

DAY 1

Optional: Prepare Yesterday and Tomorrow word cards to place above the corresponding days on the classroom calendar. Place a star above "today." The children will reposition the word cards each day.

DAY 2

You will need three connect cubes, seven crayons, and five books as props for today's Magic Math Moment.

DAY 3

The children will need to have their math bags available.

If you have projection capabilities, project *Backpack Bear's Math Workbook #1* page 15 as a guide.

DAY 4

If you have projection capabilities, duplicate *Backpack Bear's Math Workbook #1* page 16 to project as a guide.

Activity Center 1 — Navigate classroom computers to *Starfall.com*.

Activity Center 2 — The children will use Number Activity Mats 6-9 and enough play dough for each of them to form these numbers.

Activity Center 3 — The children will complete the dot-to-dot on page 17 of B*ackpack Bear's Math Workbook #1*.

Activity Center 4 — Prepare materials for this week's Teacher's Choice Activity.

Summative Assessment — You will use a set of Number Activity Mats 1-9. The children will need math mats, paper, pencils, and crayons. They will use their math mats to define their working space in several learning center activities.

Prepare a copy of the Summative Assessment Checklist for Unit 3 – Week 5 (Writing Numbers).

Summative Assessment
Unit 3 - Week 5

	DAY ①	DAY ②
Daily Routines	• Calendar • Place Value • Weather • Hundreds Chart • Number Line • "How Many Days Have We Been In School?" • **Day 1 Add** ▶ Yesterday, Today, Tomorrow and Skip Counting by Tens • **Day 2 Add** ▶ Skip Counting by Fives	
Magic Math Moment	Introduce Vertically and Horizontally (preview for writing equations)	Story Problems (Addition and Subtraction)

Math Concepts	One-to-one correspondence
	Introduce
	    The number nine
	Counting backward **9**
		Dramatize/solve simple story problems
		Count backward to zero **0**
		Introduce
		    Positive numbers, negative numbers, and the meaning of zero

Formative / Summative Assessment	The number nine	The number zero
Workbooks & Media	*Starfall.com*, Numbers: "9" Workbook page 13	*Starfall.com,* Numbers: "Rockets" and "Zero" *Math Melodies* CD, Track 9, "Five Little Speckled Frogs" and Track 30, "Three Crows" Workbook page 14

DAY 3	DAY 4	DAY 5
• Calendar • Place Value • Weather • Hundreds Chart • Number Line • "How Many Days Have We Been In School?"		

		Learning Centers
Place value: bundles of ten	Review 10	*Starfall.com:* **1** • Monthly Calendar • Numbers: "Zero" • Math Songs: "The Zero Song"

Introduce
    The number ten   **10**
Creating sets of ten (place value)
	Review AB patterns
	Introduce
	    The AABB and ABC patterns
		Number Activity Mats **2**

		Dot-to-Dot **3**
The number ten One-to-one correspondence	Create ABC patterns	Teacher's Choice **4**
"One, Two, Tie My Shoe" *Starfall.com,* Numbers: "10" Workbook page 15	"This Old Man" *Starfall.com,* Geometry & Measurement: "Patterns" Workbook page 16	Summative Assessment: Number recognition, writing numerals zero through nine **5** Workbook page 17

Daily ◎ Routines

📅 31 Calendar

- A volunteer tells the name of the month.
- The children name the days of the week.
- The calendar helper turns the next number.

🌧️ Weather

- Review yesterday's weather.
- The meteorologist goes to the window to look outside, predicts the weather, and places a tally mark under his or her prediction.
- Add a tally mark next to today's weather on the Weather Graph.

⊢⊣⊢⊣ Number Line

-2 -1 0 1 2

NEW ▶ Say: **Let's see if we can use the number line today to skip count by tens. Skip counting by tens means that when we count we will skip numbers until we reach ten more.** Demonstrate by pointing to 0, 10, 20, etc. on the Number Line.

Indicate zero on the Number Line. Say: **Let's skip count by tens.** Start at zero and count by tens to the last numeral revealed.

Sing "How Many Days Have We Been In School?"

A volunteer identifies the name of the number last revealed on the Classroom Number Line. Say: **Today we will add one more number. Raise your hand if you know what (**today's number**) plus one more is.** The number helper chooses a volunteer to answer.

Remove the sticky note to reveal the next number.

> **How Many Days Have We Been In School?**
>
> *(Tune: "Here We Go Round the Mulberry Bush")*
>
> *How many days have we been in school, been in school, been in school? How many days have we been in school, who can tell me please?*

1|0|0 Place Value

- Review the number of bundles and sticks in the *Tens* and *Ones* containers.
- Add one stick to represent today, and place it in the *Ones* container.
- Write the numeral that represents the number of days the children have been in school on the board.
- Every tenth day the children bundle the ten sticks that are in the *Ones* container and place the bundle in the *Tens* container.

Hundreds Chart

- The number helper turns the next number on the chart.
- Ask: **The hundreds chart shows we have been in school how many days?**

Magic **Math Moment**

Vertically and Horizontally

Materials
☐ Backpack Bear

Choose a volunteer to come to the front of the classroom. Say: **Let's learn two new vocabulary words today. (**Child's name**) is standing *vertically*. Say, *vertically*. *Vertically* means up and down. Now, everyone stand up vertically.**

Choose a different volunteer to come forward. Say: **(**Child's name**), lie down on the rug** (or floor) ***horizontally*. Say, *horizontally*. You can remember what *horizontally* means by thinking about lying in your bed. Everyone lie down horizontally on the floor.**

Backpack Bear whispers that he would like to play a game. Say: **Backpack Bear will whisper a direction. Ready? Backpack Bear says stand up *vertically*.** (The children do this.) **Good! Backpack Bear says lie down *horizontally*.** Repeat several times.

One-to-One Correspondence and the Number Nine

Materials
☐ *Starfall.com:* Numbers, "9"
☐ *Backpack Bear's Math Workbook #1*, page 13
☐ *Backpack Bear's Math Big Book,* page 26
☐ Whiteboard, marker
☐ Pencils, crayons

1 Introduce the Number Nine

Write the numeral 9 on the board. Say: **This is the numeral 9. The numeral 9 stands for nine.**

Indicate and count nine classroom objects to demonstrate nine.

2 Introduce One-to-One Correspondence

Choose nine children to stand in the front of the classroom. Ask: **How many crayons do we need in order to give one to each of these children?**

If the response is incorrect, a volunteer counts out the number of crayons and attempts to distribute one crayon to each of the nine children. Lead the children to understand why the response was incorrect (either there are not enough crayons or there are too many). Continue until the correct response is given.

Counting & Cardinality

A.3 - Write numbers from 0 to 20.

B.4 - Understand the relationship between numbers and quantities.

CC.3 - Count backward from a given number.

Geometry

A.1 - Describe objects using shapes and relative positions.

Explain: **This is called one-to-one correspondence because we matched one crayon to one child. There are nine children and nine crayons.**

- **Are there any crayons left over?**
- **Does every child have a crayon?**

The children count backward from nine as the volunteers return to their seats.

3 **Find Nines**

Indicate *Backpack Bear's Math Big Book*, page 26. Ask: **Can you find some pictures on this page that show nine?** (The children do this.)

Ask: **Where else can you see the number 9 or nine of something?** (nine is the last digit in the ones container, nine crayons, $8 + 1 = 9$, nine children, etc.)

Project and play *Starfall.com*, Numbers: "9."

Ask: **Did you see any other examples of nine?**

Formative Assessment

Backpack Bear's Math Workbook, page 13

Distribute *Backpack Bear's Math Workbook #1* and instruct the children to turn to page 13. Complete the page together as with previous workbook pages.
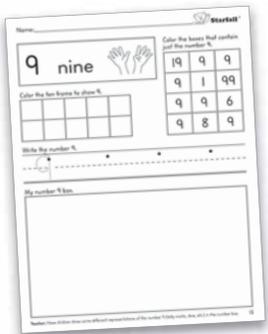
📅 Calendar

- A volunteer tells the name of the month.
- The children name the days of the week.
- The calendar helper turns the next number.

☀️ Weather

- Review yesterday's weather.
- The meteorologist goes to the window to look outside, predicts the weather, and places a tally mark under his or her prediction.
- Add a tally mark next to today's weather on the Weather Graph.

Number Line

Ask: **Who remembers how we used the number line to count yesterday?** (Volunteers respond.) **Right, we skip counted by tens. Today we will skip count again, but this time we will skip count by fives.** Choose fifteen children to stand side-by-side in the front of the classroom. Demonstrate skip counting by touching the head of every fifth child.

Indicate negative five on the number line. Say: **Let's skip count by fives. I will point to the numeral and you say its name with me. Then I will skip four numerals and say the fifth one.** Start at negative five and continue until you reach the last revealed numeral.

Sing "How Many Days Have We Been In School?"

> **How Many Days Have We Been In School?**
>
> (Tune: "Here We Go Round the Mulberry Bush")
>
> How many days have we been in school, been in school, been in school? How many days have we been in school, who can tell me please?

A volunteer identifies the name of the number last revealed on the Classroom Number Line. Say: **Today we will add one more number. Raise your hand if you know what (**today's number**) plus one more is.** The number helper chooses a volunteer to answer. Remove the sticky note to reveal the next number.

1|0|0 Place Value

- Review the number of bundles and sticks in the *Tens* and *Ones* containers.
- Add one stick to represent today, and place it in the *Ones* container.
- Write the numeral that represents the number of days the children have been in school on the board.
- Every tenth day the children bundle the ten sticks that are in the *Ones* container and place the bundle in the *Tens* container.

Hundreds Chart

- Say: **Today we will turn the next number.** The number helper does this.
- Ask: **The hundreds chart shows we have been in school how many days?**

Magic 2 3 Math Moment
1

Story Problems

Say: **Listen to these story problems and see if you can tell the answers.** Choose children to dramatize each of the problems.

- **One day** (child's name**) went for a walk. Two friends joined him** (or her**). How many children went for a walk altogether?**
- **Here's another one.** (Child's name**) went to the store and bought six crayons.** (A second child's name**) went to the store and bought one more crayon. How many crayons did** (both children's names**) buy altogether?**
- **This is the last one.** (Child's name**) has five books. If he** (or she**) gives five books to a friend, how many books will** (child's name**) have left?**

Materials
- ☐ 2 connect cubes
- ☐ 7 crayons
- ☐ 5 books

The Number Zero

Materials
- ☐ *Math Melodies* CD Tracks 9 and 30
- ☐ *Backpack Bear's Math Workbook #1*, page 14
- ☐ *Starfall.com:* Numbers, "Rocket" and "Zero"
- ☐ Pencils, crayons
- ☐ Backpack Bear

1 **Introduce Positive and Negative Numbers**

Indicate the Classroom Number Line. Say: **We have negative numbers here.** Point to the numerals -5 through -1.

Indicate the numerals to the right of zero and say: **The numbers on this side of zero are positive numbers. The number line doesn't ever really end. All numbers to the left of zero** (indicate**) are negative and all numbers to the right of zero** (indicate**) are positive, and they go on forever in both directions!**

Ask: **What number is right in the middle of the positive and negative numbers?** (Volunteers respond.) **Right, zero is right in the middle of the positive and negative numbers. Is zero negative or positive?** Backpack Bear whispers the answer to you. Say: **Right, Backpack Bear! Zero isn't negative or positive.**

Counting & Cardinality

A.2 - Count forward from a given number.

CC.3 - Count backward from a given number.

CC.5 - Identify ordinal numbers.

Operations & Algebraic Thinking

A.2 - Solve word problems with addition and subtraction within 10.

Number & Operations In Base Ten

A.1 - Understand numbers 11-19 are ten ones plus more ones.

2   Introduce the Meaning of Zero

Play *Math Melodies* CD Track 30, "Three Crows" and instruct the children to listen carefully. Ask: **If all the crows flew away, how many were left? Right, zero! Hold up zero fingers.** (The children do this.) **Yes, since zero means none, you didn't hold up any fingers!**

Project and view *Starfall.com*, Numbers: "Rocket" and "Zero."

3   Count Backward to Zero

Select five children to sit side-by-side in five chairs across the front of the classroom. Say: **Let's pretend you are five little speckled frogs.** Explain the meaning of speckled if necessary.

Number the children from one to five. Tell the first child: **You are the first frog.** Tell the second child: **You are the second frog.** Continue until all five children are numbered.

Say: **Let's sing "Five Little Speckled Frogs." Each time we sing that the speckled frog falls into the pond, you fall to the floor. Ready?**

Play *Math Melodies* CD Track 9, "Five Little Speckled Frogs" and encourage the children to sing along.

Ask: **How many speckled frogs are left sitting in the chairs? (**zero or none**) Right, there are none left. What numeral can we use to show there are no frogs left? Yes, zero!**

Three Crows

Three crows there were once
Who sat on a stone
    Fa la, la la, la la!

But two flew away
And then there was one
    Fa la, la la, la la!

The other crow felt so timid, alone
    Fa la, la la, la la!

That he flew away
and then there were none
    Fa la, la la, la la!

Formative Assessment

Backpack Bear's Math Workbook, Page 14

Distribute *Backpack Bear's Math Workbook #1* and instruct the children to turn to page 14. Explain the directions for the top half of the page and observe as the children complete it. Assist as needed.

When the children have finished, direct their attention to the "My number 0" box. Ask: **What should you draw in the number 0 box?** (Volunteers respond.) **Right, since zero is nothing, you should draw nothing in the box!**
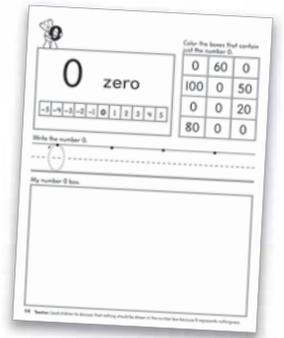
"Five Little Speckled Frogs"

Five little speckled frogs
Sat on a speckled log
Eating some most delicious bugs (yum yum)
One jumped into the pool
Where it was nice and cool
Then there were four green speckled frogs (glub glub)

Four little speckled frogs…

Three little speckled frogs…

Two little speckled frogs…

One little speckled frog
Sat on a speckled log
Eating some most delicious bugs (yum yum)
One jumped into the pool
Where it was nice and cool
Then there were no green speckled frogs (glub glub)

Daily ☉ Routines

CALENDAR 31 Calendar

- A volunteer tells the name of the month.
- The children name the days of the week.
- The calendar helper turns the next number.

Weather

- Review yesterday's weather.
- The meteorologist goes to the window to look outside, predicts the weather, and places a tally mark under his or her prediction.
- Add a tally mark next to today's weather on the Weather Graph.

Number Line

- Point to and count the days on the number line by ones, fives, or tens.
- Sing "How Many Days Have We Been In School?"
- Remove the sticky note to reveal the next number.

How Many Days Have We Been In School?

(Tune: "Here We Go Round the Mulberry Bush")

*How many days have we been in school, been in school, been in school?
How many days have we been in school,
who can tell me please?*

1|0|0 Place Value

- Review the number of bundles and sticks in the *Tens* and *Ones* containers.
- Add one stick to represent today, and place it in the *Ones* container.
- Write the numeral that represents the number of days the children have been in school on the board.
- Every tenth day the children bundle the ten sticks that are in the *Ones* container and place the bundle in the *Tens* container.

Hundreds Chart

- The number helper turns the next number on the chart.
- Ask: **The hundreds chart shows we have been in school how many days?**

Magic Math Moment

Number Bundles

Review the place value containers. Ask:

- **How many bundles of ten are there?**
- **How many sticks are in each bundle?**

Explain: **Right, there are ten sticks in each bundle. If there are** (number of bundles**) bundles of ten, we can count by tens to know how many sticks there are in all of the bundles.**

Indicate the bundles. Say: **If there are two bundles, we can count 10, 20, and we know there are 20 sticks. It's much faster to count by tens than to take the bundles apart and count each stick! What if there were three bundles? We would count 10, 20, 30 and we would know there were 30 sticks. Let's count by tens starting at zero.**

The Number Ten

Materials
☐ Math bags
☐ Pencils, crayons
☐ *Starfall's Selected Nursery Rhymes,* page 30
☐ *Backpack Bear's Math Workbook #1,* page 15
☐ *Starfall.com:* Numbers,"10"

Essential Question: *How can we use a numeral to show how many objects there are?*

1 Introduce the Number Ten

Indicate *Starfall's Selected Nursery Rhymes* (page 30).
Read the rhyme "One Two Tie My Shoe" and encourage the children to join you.
Ask: **What was the last number we just said? Right, ten!**

Write the numeral 10 on the board. Say: **This is the numeral 10. The numeral 10 represents one set of ten and zero ones. That is why we bundle the sticks when we have ten of them.**

Indicate a bundle of sticks. Say: **If we know the bundles each have ten sticks, we don't have to count each stick because we already know there are ten.**

Continue: **Raise your hand if you can find the Number Wall Card that represents 10. What do you notice about the Wall Card?** (It has one row of ten and no extra cubes.)

Counting & Cardinality

A.1 - Count to 100 by ones and by tens.

A.2 - Count forward from a given number.

A.3 - Write numbers from 0 to 20.

B.4 - Understand the relationship between numbers and quantities.

B.4a - Say number names in order, pairing each object with one number.

B.4b - The last number counted tells the total number of objects.

B.4c - Each successive number refers to one more.

→ Formative Assessment

Backpack Bear's Math Workbook, page 15

Instruct the children to remove the connect cubes from their math bags. Say: **Place the individual connect cubes in front of you.** The children do this.

Continue: **Now, connect your cubes together to make a set of ten. When you are finished, ask your neighbor to count your cubes to be sure you have ten.**

The children count the cubes of a child next to them.

Project *Starfall.com*, Numbers: "10" or gather around a classroom computer. The children watch, carefully looking for examples of ten.

Distribute *Backpack Bear's Math Workbook #1* to each child. Say: **Turn to page 15. How is this page different from the 0-9 pages?** Volunteers compare and contrast the Number 10 page to the others. If possible, duplicate page 15 and project it for use as a guide.

Direct the children's attention to the number line at the top of the page. The children count together from zero to twenty then circle the numeral 10.

Ask: **Where do you see a set of ten and no ones on this page? What does this remind you of?** (Wall Card) **Color the set of ten squares.** The children do this.

Say: **Look at the boxes with all the numbers. Put your finger on the first box. I see the number 100. Put an X on 100 because it isn't 10.** Continue with the remaining numerals, coloring the squares with tens and placing an X on the others.
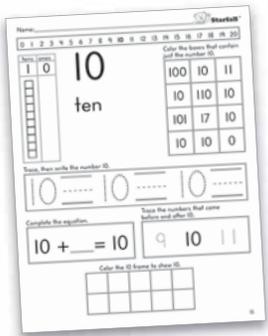
Say: **Now, trace over the numeral 10, and the write your own 10.**

Continue: **10 plus how many more equals 10?** (0) **Right, zero!** The children complete the equation.

Discuss the numbers that come before and after 10. The children trace the 9 and 11.

Say: **Look at the ten-frame. How many sections should you color to equal ten?** The children color the sections of the ten-frame.

Daily ⟳ Routines

Calendar

- A volunteer tells the name of the month.
- The children name the days of the week.
- The calendar helper turns the next number.

Weather

- Review yesterday's weather.
- The meteorologist goes to the window to look outside, predicts the weather, and places a tally mark under his or her prediction.
- Add a tally mark next to today's weather on the Weather Graph.

Number Line

- Point to and count the days on the number line by ones, fives, or tens.
- Sing "How Many Days Have We Been In School?"
- Remove the sticky note to reveal the next number.

How Many Days Have We Been In School?

(Tune: "Here We Go Round the Mulberry Bush")

How many days have we been in school, been in school, been in school?
How many days have we been in school, who can tell me please?

Place Value

- Review the number of bundles and sticks in the *Tens* and *Ones* containers.
- Add one stick to represent today, and place it in the *Ones* container.
- Write the numeral that represents the number of days the children have been in school on the board.
- Every tenth day the children bundle the ten sticks that are in the *Ones* container and place the bundle in the *Tens* container.

Hundreds Chart

- The number helper turns the next number on the chart.
- Ask: **The hundreds chart shows we have been in school how many days?**

Counting & Cardinality

A.2 - Count forward from a given number.

B.4 - Understand the relationship between numbers and quantities.

B.4a - Say number names in order, pairing each object with one number.

B.4b - The last number counted tells the total number of objects.

B.4c - Each successive number refers to one more.

There will be no further changes to the Daily Routines in this Unit. For the remaining days, refer to this page for Routine instructions if needed.

Magic Math Moment

Review Ten

Indicate *Starfall's Selected Nursery Rhymes* pages 42 and 43, "This Old Man." Discuss the illustrations with the children before reading the rhyme.

Play *Math Melodies* CD, Track 29 and encourage the children to sing along and create motions to accompany the song. Read (or sing) the rhyme a third time and the children perform motions to accompany it.

Pattern Review

1 Review Patterns

Counting & Cardinality

B.4 - Understand the relationship between numbers and quantities.

B.4c - Each successive number refers to one more.

Operations & Algebraic Thinking

OA.1 - Identify, describe, or extend simple patterns.

Say: **Today let's review patterns. Who remembers what a pattern is?** (Volunteers respond.) **Right, a pattern is something that repeats.**

Ask: **Who remembers when we created AB patterns, like boy/girl, boy/girl? Raise your hand if you can think of another AB pattern.**

Continue: **We learned about another type of pattern. See if you can remember. I will start the pattern and you join in. Ready?** Perform this pattern without saying the words: clap, clap, wiggle, wiggle. Repeat it a second time and the children join you.

2 AABB Patterns

Say: **Let's try another one.** Use this pattern: stomp, stomp, jump, jump. Repeat the pattern and the children join you.

Explain: **These are called AABB patterns. Why do you think they are called AABB patterns?** Lead the children to understand that there are two movements: A is repeated two times and then B is repeated two times.

The children partner and create AABB patterns. Volunteers share their patterns. They tell the rule and the class joins in.

Project *Starfall.com*, Geometry & Measurement: "Patterns." Say: **Look at the different kinds of patterns. Who can find the AABB pattern?**

Say: **An AABB pattern has two of one thing and then two of another thing. Let's do the AABB pattern maze.** Volunteers assist to complete the maze.

③ Making Patterns

Distribute *Backpack Bear's Math Workbook #1* and instruct the children to turn to page 16. If possible, duplicate the page and project it as a guide.

Indicate and read: **Making Patterns. I can make a (**say blank**) pattern.**

Say: **Let's make an ABC pattern. Write a capital A, capital B, and capital C in the blank.** Demonstrate how to write the letters.

Say: **We will use our red, blue, and yellow crayons. A will be red, B will be blue, and C will be yellow. What color should we start with?** (Volunteers respond.) **Right, red for A. Color the first square red.**

Ask: **What is next in the pattern?** (B) **Yes, B. Color the next square blue.**

Ask: **What is next?** (C) **Yes, C. Color the third square yellow.**

Formative Assessment

Backpack Bear's Math Workbook, Page 16

Say: **Now you are ready to finish the ABC pattern. If you need help, check with your neighbor or raise your hand.** The children complete the top section of the workbook page.

Say: **Let's read the next sentence, I can make an (**blank**) pattern. Let's make an AABB pattern using red and blue crayons. Write AABB in the blank.** Demonstrate writing the letters.

Ask: **What color should the first box be?** (red) **Yes, it should be red for A. What color should the next box be?** (also red) **Good, the next box should also be red for another A. Color the first two boxes red.**

Say: **We just did the AA part of the pattern. What's next?** (BB) **Yes, BB is next, so what color should we use for the next box?** (blue) **Right, blue. Color your next box blue. What color will the next box be?** (also blue) **Right, it is another B so color the next box blue too.**

Say: **Now we have the pattern set up: red, red, blue, blue. Continue to color the boxes using the AABB pattern.**

As you monitor the children, informally assess their understanding of patterns.
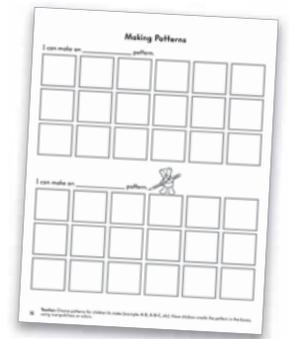
Learning Centers

1 Computer

The children explore:

- Monthly calendar
- Numbers: "Zero"
- Math Songs: "The Zero Song"

Materials
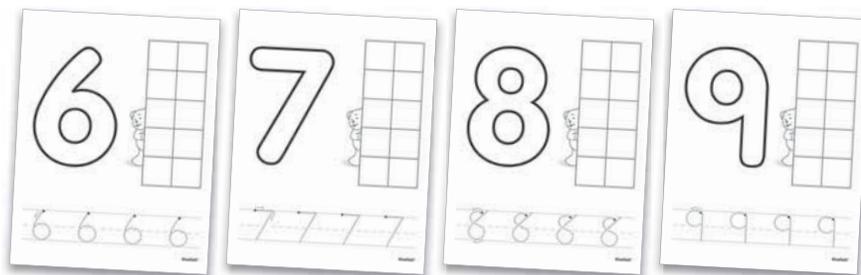- ☐ Computers navigated to *Starfall.com*

Counting & Cardinality

A.2 - Count forward from a given number.

A.3 - Write numbers from 0 to 20.

B.4 - Understand the relationship between numbers and quantities.

Operations & Algebraic Thinking

OA.1 - Identify, describe, or extend simple patterns.

Geometry

A.2 - Correctly name shapes.

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2 Number Activity Mats

Each child selects a Number Activity Mat. The children roll play dough into a "snake" and form the number on their activity mats. They then form small balls to cover the corresponding number of sections on the ten-frame. The children remove the play dough and exchange Number Activity Mats with each other. They repeat as time allows.

Materials
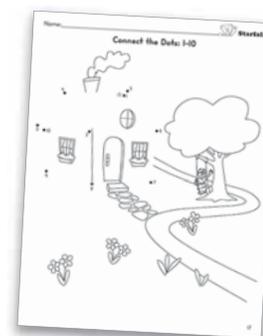- ☐ Number Activity Mats 6–9
- ☐ Play dough

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3 Dot-to-Dot

The children complete *Backpack Bear's Math Workbook #1*, page 17. The use pencils to connect the dots from 1 through 10. They trace the pencil line with a dark crayon and color the picture.

Materials
- ☐ *Backpack Bear's Math Workbook #1*, page 17
- ☐ Pencils, crayons

4   Teacher's Choice

Prepare an activity that will provide the children with an opportunity to practice a skill from this unit.

5   Summative Assessment

Indicate the Number Card 1. Ask: **Who knows what numeral this is?** A volunteer answers and places the Number Card in the top row of a pocket chart. Continue with the remaining Number Cards in random order.

Distribute a sheet of paper and a pencil or crayons to each child. Say: **Listen to the number I say and then write it on your paper. You may use the Number Cards or your math mat to help you remember how to write the numbers.**

Name each number in random order, pausing for the children to write them. Record mastery on the Summative Assessment Checklist for Unit 3, Week 5, or collect the papers to record at a later time. The children turn their papers over, choose a number, write it, and use crayons to turn the number into an object.
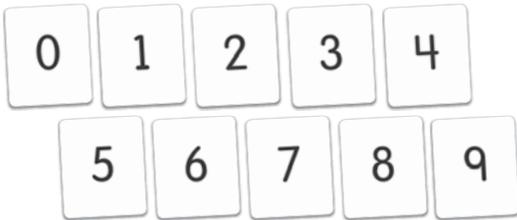
Materials

☐ Summative Assessment Checklist (Unit 3, Week 5 Writing Numbers)

☐ Number Cards: 0-9

☐ Paper, pencils, crayons

☐ Pocket chart

☐ Math mats

| 0 | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 |
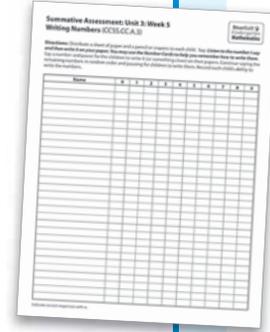
It is common for kindergarten-aged children to write numerals backwards. It is not a cause for concern at this time.

Week 6 Summary

The children will be introduced to measurement, the concepts of taller and shorter, and polygons. They will learn how ordinal numbers are used and how to sort by attributes. The children will also:

- Further develop graph interpretation skills through the Calendar Routine
- Practice identifying numbers that are one less and one more
- Measure using a nonstandard measuring tool
- Compare lengths of objects

Preparation

DAY **1**

Have a classroom measurement chart located where it is easy for the children to see.

Prepare a name card for each child, and have reusable adhesive available to attach the name cards to the wall next to the measurement chart.

DAY **2**

Navigate a classroom computer with projection capabilities to *Starfall.com*, Math Songs: "Five Little Farmers."

You will use Number Cards 1 through 10 for today's Magic Math Moment. Place the Number Cards in a bag or basket for today's lesson.

DAY **3**

You will need ten small stick pretzels for each child, and Shape Cards: *triangle, circle, square, rectangle, rhombus, ellipse, pentagon, hexagon, octagon,* and *trapezoid*.

DAY **4**

The children will use individual whiteboards and markers in today's Magic Math Moment.

You will need one set of Shape Cards for display and enough other sets to provide one Shape Card for each child.

Gather three containers of like objects (books, connect cubes, toy cars, blocks, etc.) for sorting.

Activity Center 1 — Navigate classroom computers to *Starfall.com*.

Activity Center 2 — Provide math mats and a tub(s) of various objects such as blocks, buttons, chips, toy cars, magnets etc. for sorting.

Activity Center 3 — Duplicate *Backpack Bear's Math Workbook #1*, page 20 and color the key for the children to reference in completing the workbook page.

Activity Center 4 — Prepare materials for this week's Teacher's Choice Activity.

Summative Assessment — Prepare a copy of the Summative Assessment Checklist for Unit 3 – Week 6 (Measurement). Gather a classroom object for each child to measure (e.g., a book, a marker, a paintbrush, or a pencil) and have several paper clips or connect cubes available for each child to use as nonstandard measuring tools.

Summative Assessment
Unit 3 - Week 6

	DAY ①	DAY ②
Daily Routines	• Calendar • Place Value • Weather • Hundreds Chart • Number Line	
Magic Math Moment	Writing equations vertically and horizontally	Recognize the number that is one less

Math Concepts	Meaning of equations
	
	Review vertically and horizontally
	Introduce
	  Measurement (height) and Baseline
	Taller/shorter
		Introduce
		  Ordinal Numbers (first through fifth)
		  Positioning (first through tenth)

Formative / Summative Assessment	Taller/shorter	Ordinal numbers
Workbooks & Media	Workbook page 18	*Starfall.com*, Math Songs: "Five Little Farmers" Workbook page 19

DAY **3**	DAY **4**	DAY **5**
• Calendar • Place Value • Weather • Hundreds Chart • Number Line		

Learning Centers

DAY **3**	DAY **4**	**Learning Centers**
One less (subtraction preview)	One more (addition preview)	*Starfall.com:* **1** • Monthly Calendar • Numbers: 0-10 • Geometry & Measurement: "Polygons" and "Button Sort"
Review and discriminate polygons (triangle, rectangle, rhombus, ellipse, hexagon, octagon, trapezoid)	***Introduce*** Attributes and sorting	Sorting **2**
		Color by Number **3**
Create polygons	Sort shapes by attributes	
		Teacher's Choice **4**
Math Melodies CD Track 6, "Five Little Chickadees"		Summative Assessment Measurement (length) **5** Workbook page 20

Magic Math Moment

Equations

Say: **Raise your hand if you would like to be a mathematician today.** (The children do this.) **What do you think mathematicians do? Right, mathematicians work with numbers.**

Write 2+2 = _____ on the whiteboard and read: **2 + 2 = what? Put your hands on your head if you know the answer.** The children do this and a volunteer responds.

Say: **2 + 2 = 4 is an *equation*. Say, *equation*.** (The children repeat, equation.) **An *equation* is a number sentence. Whatever is on one side of the equal sign (**indicate 2+2**) is equal to what is on the other side of the equal sign (**indicate 4**). 2+2 is the same as 4.**

Continue: **This equation is written *horizontally*. Say, *horizontally*.** (The children repeat, *horizontally*.) **Now watch! I will write the same equation *vertically*. Who remembers what *vertically* means?**

Write the equation vertically. Say: **Both of these equations are the same. It doesn't matter if an equation is written horizontally or vertically, the equation doesn't change.**

Counting & Cardinality

A.2 - Count forward from a given number.

B.4 - Understand the relationship between numbers and quantities.

Measurement & Data

A.1 - Describe measurable attributes of objects.

Operations & Algebraic Thinking

A.1 - Represent addition and subtraction in a variety of ways.

Measurement

Materials

☐ Classroom measuring chart

☐ *Backpack Bear's Math Workbook #1*, page 18

☐ Prepared name cards

☐ Reusable adhesive

☐ Pencils

Essential Question: *How can we use measurement to describe and compare objects?*

1 Introduce Measurement

Gather the children around the classroom measuring chart. Say: **A measuring chart records how tall you are. How tall you are is called your height.**

Choose two children of the same height to stand at the front of the classroom. Ask: **Are both of these children the same height?**

Instruct one of these children to stand on a chair or a thick book. Ask:

- **Now are they the same height?**
- **Did one child grow taller?**
- **Why is one child taller than the other now?**

2 Introduce Baseline

Say: **When you measure an object, you must start at a baseline.** Point out how the children are not being measured from the same baseline.

Say: **The baseline for measuring these children could either be the floor or the chair, but both children must be measured from the same baseline.**

Instruct the child on the chair (or book) to step down. Ask:

- **Now, are both children on the same baseline?**
- **Are they children the same height now?**

3 Measurement Chart

Measure each child and add their name cards to the wall. Be sure to include yourself and Backpack Bear.

Compare and contrast the results.

Formative Assessment

Backpack Bear's Math Workbook, Page 18

Distribute *Backpack Bear's Math Workbook #1* and instruct the children to turn to page 18. Discuss the three sections. Say:

- **Look for something in the classroom that is taller than you are, and draw a picture of it in the middle box.**
- **Find something that is shorter than you are, and draw a picture of it in the last box.**

The children gather together to share their results.

Magic Math Moment
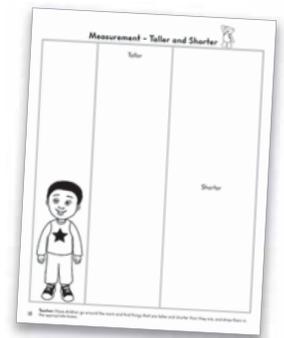
Less Than

Choose ten volunteers to each hold a Number Card and stand in order side-by-side at the front of the classroom.

Say: **I will say a number. Raise your hand if you can point to the number that is one less than the number I say. Ready? *Four*.**

Assist a volunteer to indicate the Number Card 3. Continue: **Right, 3 is one less than 4.** The volunteer takes the place of the child holding the Number Card. Repeat with several other numbers.

Counting & Cardinality

CC.2 - Supply missing number in a sequence.

CC.5 - Identify ordinal numbers.

Ordinal Numbers

Essential Question: *What would happen if we didn't have ordinal numbers?*

Materials
☐ *Math Melodies* CD Track 7
☐ *Starfall.com:* Math Songs, "Five Little Farmers"
☐ *Backpack Bear's Math Workbook #1,* page 19
☐ Number Cards: 1 -10 in a bag or basket
☐ Backpack Bear

1 Introduce Ordinal Numbers

Say: **Today we will learn about special kinds of numbers called ordinal numbers. Ordinal numbers tell the position or order of people, objects, and events. For example, in a race with three people:**

- **Someone finishes first.**
- **Someone finishes second.**
- **Someone finishes third.**

2 "Five Little Farmers"

Project *Starfall.com*, Math Songs: "Five Little Farmers," or gather the children around a classroom computer. Say: **Listen for ordinal numbers in the song.**
Play the song again using the *Math Melodies* CD, Track 7.

Say: **Let's play the song again. This time listen for what each little farmer did.**
Discuss the actions of the five farmers. Instruct the children to mimic the actions.

- **The first farmer milked the cow.**
- **The second farmer plowed.**
- **The third farmer fed the hens.**
- **The fourth farmer mended broken pens.**
- **The fifth farmer took vegetables to town.**

Ask: **What did the first farmer do?** Volunteers respond. Choose a volunteer to represent the first farmer. Continue until all five farmers are standing side-by-side.

Play the song again and the children add actions.

Choose a different set of five children to come to the front of the classroom. Tap each child's head as you count first, second, third, fourth, and fifth.

Ask: **Which child is third? Which child is fifth?** Repeat with each position.

3 **Put Backpack Bear in Position**

Place 10 chairs in a row one behind the other. Say: **I will place Backpack Bear in the first chair.** (Do this.) Ask: **Who can move him to the fifth chair?** (A volunteer does this.) Continue until you have named each position.

Formative Assessment

Backpack Bear's Math Workbook, Page 19

Distribute *Backpack Bear's Math Workbook #1* and instruct the children to turn to page 19. If you have projection capabilities, project the page as a guide.

Read the directions above each row of pictures one section at a time, and the children color the appropriate objects. Check for understanding as the children complete the workbook page.

Magic Math Moment
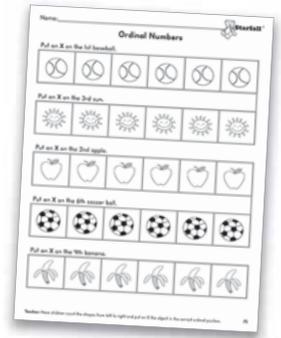
One Less

Instruct the children to listen as you play the *Math Melodies* CD Track 6, "Five Little Chickadees."

Ask: **What did you notice about the number of chickadees each time one flew away?** (Volunteers respond.) **Right, each time a chickadee flew away the number was one less. First there were 5 chickadees then 1 flew away. How many were left? Right, four.**

Continue: **Listen to the song again. This time hold up five fingers and put one down each time a chickadee flies away.** Assist the children as necessary.

Counting & Cardinality

CC.2 - Supply missing number in a sequence.

Geometry

A.2 - Correctly name shapes.

B.5 - Build and/or draw shapes.

"Five Little Chickadees"

Five little chickadees
Pecking at the door
One flew away and
Then there were four

Four little chickadees
Sitting in a tree
One flew away and
Then there were three

Three little chickadees
Looking at you
One flew away and
Then there were two

Two little chickadees
Sitting in the sun
One flew away and
Then there was one

One little chickadee
Left all alone
He flew away and
Then there were none

Polygons

1 **Introduce Polygons**

Display the following Shape Cards in a pocket chart: *triangle, circle, square, rectangle, rhombus, ellipse, pentagon, hexagon,* and *octagon.*

Say: **Today we will learn about a special group of shapes called polygons. A *polygon* is any shape that has three or more straight lines that are connected. Say, *polygon*.**

Materials

☐ Shape Cards: *triangle, circle, square, rectangle, rhombus, ellipse, pentagon, hexagon, octagon,* and *trapezoid*

☐ Ten small stick pretzels per child

2 Discriminate Polygons

Say: **Remember the rule, a polygon has at least three straight lines that are connected. Look at these shapes. Who can find a polygon?** A volunteer removes a Shape Card from the pocket chart, identifies the shape, and explains why it is a polygon. If a child selects the circle or ellipse, the class may assist in explaining that these shapes do not follow the polygon rules (at least three straight lines that are connected). Repeat until only the circle and ellipse remain.

Ask: **Why are the circle and ellipse still in the pocket chart?** (Volunteers respond.) **Right, they do not have at least three straight lines that are connected. They have curved lines.** Remove the circle and ellipse from the pocket chart.

Indicate the trapezoid. Say: **This is a _trapezoid_. Say, _trapezoid_.** (The children repeat, trapezoid.) **Is a _trapezoid_ a polygon? Why?**

Formative Assessment

Create Polygons

Distribute ten stick pretzels to each child. Say: **Let's use pretzels to create polygons!** Say the name of a polygon and the children construct it using their pretzels. Remind the children that the ends of their pretzels must touch.

Repeat for each of the polygons.

Magic Math Moment

One More

Distribute individual whiteboards and markers. Partner the children and instruct them to sit back-to-back. Say:

I will say a number. You write the number that is one more than the number I say. When I say "show your answer," turn and show your answer to your partner. Ready?

Discuss the number that is one more after partners share their answers.

Counting & Cardinality

CC.2 - Supply missing number in a sequence.

Measurement & Data

B.3 - Classify, count, and sort objects.

Geometry

A.2 - Correctly name shapes.

Sort By Attributes

1 Introduce Attributes

Divide the children into groups of boys and girls.

Say: **Let's count the children in each group.** Do this.

Ask: **Why is this one way to divide the class?** Discuss.

Continue: **One of the ways to divide the class is to separate you into a group of girls and a group of boys. This is a physical attribute. You are either a boy or a girl.** *Attributes* **are ways to describe people and objects. We use** *attributes* **for sorting. Say,** *attribute.* (The children repeat, *attribute.*)

2 Sorting by Attribute

Say: **There are many ways to sort people and objects.** Indicate three containers full of objects of varying size. (Example: connect cubes, tiles, toy cars, blocks, books)

Say: **These objects are classified into three groups.**

Describe the objects in each group. Ask: **How are the objects classified or sorted? Right, all of the books are together, all of the connect cubes are together, and all of the toy cars are together, so they are classified by the type of object. What are some other ways the objects could be classified into categories?** Lead the children to understand that the objects could be classified by color, size, etc.

Formative Assessment

Different Ways to Sort

Display one set of Shape Cards across the top row of a pocket chart. Indicate and identify each shape. Distribute a Shape Card to each child. Say: **Keep your shape a secret!**

The children take turns completing the sentence stem "My secret shape is a _____ . It has _____ sides/curves. It belongs with the _____ (shape name)." The children place their Shape Cards in the pocket chart under the corresponding shape.

Collect several classroom books that can easily sorted into three categories such as ABC books, color, animals, etc.

Say: **Let's see how many ways we can think of to classify these books. What is one way?** The children suggest ways of sorting the books (subject matter, hardcover/soft cover, size, etc.) and volunteers sort them accordingly.

Learning Centers

1 Computer

The children explore:

- Numbers: 0-10
- Geometry & Measurement, "Polygons"
- Geometry & Measurement, "Button Sort"

Materials
- ☐ Computers navigated to *Starfall.com*

2 Sorting Objects

The children partner or work in small groups to discover different ways to sort tubs of various objects on their math mats.

Materials
- ☐ Tub(s) of a variety of objects (blocks, buttons, chips, toy cars, magnets, etc.)
- ☐ Math mats

3 Color by Number

The children reference a color key to assist them in completing *Backpack Bear's Math Workbook #1*, page 20.

Materials
- ☐ *Backpack Bear's Math Workbook #1*, page 20
- ☐ Pencils, crayons

4 Teacher's Choice

Prepare an activity that will provide the children with an opportunity to practice a skill from this unit.

5 Summative Assessment

Distribute the objects and paper clips or connect cubes to each child. Explain to the children that their job is to use the paper clips or connect cubes to measure the objects. Each child does this. The children trade objects and measure.

Record mastery on the Summative Assessment Measurement Checklist for Unit 3, Week 6 for children who measure the objects by placing the paper clips or connect cubes at the baselines and continue to the other end.

Materials
- ☐ Summative Assessment Checklist for Unit 3, Week 6 (Measurement)
- ☐ One object for each child (book, marker, paintbrush, pencil)
- ☐ Several paper clips or connect cubes for each child