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Numbers Everywhere

Week 3

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Week 3 Summary

The children will be introduced to the Magic Math Moment, a brief math activity that will occur before the Math Lesson each day. The Magic Math Moment serves not only as an additional opportunity to practice math skills, but also as a perfect transition into each day's Math Lesson. The children will begin to identify the meaning of numbers, and discuss ways they are represented in our everyday lives. The children will also:

- Experience math learning centers
- Focus on the numbers 1 through 4
- Learn to use a ten-frame
- Review geometric shapes and their attributes
- Be introduced to Essential Questions

Preparation

Display the Essential Questions Cards (pictured) for **Unit 2** on a bulletin board.

As you see the essential questions in the Lesson Plans, read them to the children. Explain that essential questions are very important, and that you will work to answer them together over the course of several days. Review the unit's essential questions often, especially at the end of each week.

If you haven't already done so, use a marker to write each child's name on the front of his or her *Backpack Bear's Math Workbook #1*.

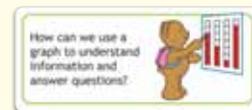
Day 5 of each week will include a rotation of five Learning Centers. The activities will change each week, but the centers will routinely consist of a Computer Center in which the children will navigate and explore activities on *Starfall.com*, three Activity Centers, and a Summative Assessment Center in which you will administer a weekly assessment.

One Activity Center each week will be Teacher's Choice. Choose an activity that will provide the children with the opportunity to practice one of the skills in the unit or review a skill that was introduced previously.

Familiarize yourself with this week's Learning Centers and decide how you will accommodate them in your classroom. Divide the class into five groups and instruct the children to stay with their assigned groups. Explain how you will signal them when it is time to change centers. Decide when to change the groups based on the dynamics of the children. Groups may remain consistent for several Learning Center rotations (weeks), or you may change them often.

End-Of-Month Calendar Routine:

At the end of each month, the children should assist in removing the number cards, beginning with the last day. Lead them in counting backward as they remove each number. Place the next month's name in the calendar. Explain that each month has a certain number of days. (e.g. August had 31 days; September has 30 days.)



DAY 1

Prepare or have available the calendar heading for the month you begin school.

The children will use their workbooks for the first time today. The workbook includes blank journal pages for you to use at your discretion.

Familiarize yourself with the “How Many Days Have We Been In School?” song, a short variation to “Mulberry Bush” you will sing each day.

DAY 2

Navigate a classroom computer to *Starfall.com*: Numbers, “2.”

DAY 3

Navigate a classroom computer to *Starfall.com*: Numbers, “3.”

Prepare a plastic bag for each child that contains 10 red and 10 blue connect cubes.

DAY 4

Navigate a classroom computer to *Starfall.com*: Numbers, “4.”

You will need a set of Shape Cards (*circle, ellipse/oval, rectangle, rhombus, square, and triangle*).

DAY 5

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

Activity Center 2 — Have Number Activity Mats 1-5 available at this center, and supply enough play dough for each child to form the numerals.

Activity Center 3 — Duplicate a copy of the Gingerbread Boy blackline for each child. The children will also use crayons and scissors. They will draw shapes to represent Gingerbread Boy’s eyes, nose and buttons, and color and cut out their Gingerbread Boy.

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

Summative Assessment — The children will complete page 6 of *Backpack Bear’s Math Workbook #1*. Prior to learning center time duplicate page 6 and color the shapes in the color key for the children to use as a reference.

You will use a set of Shape Cards (*circle, ellipse/oval, rectangle, square, and triangle*) to perform this week’s summative assessment.

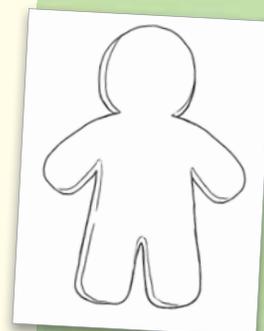
Duplicate a Shape Summative Assessment Class Checklist for **Unit 2, Week 3** on which you will record skill mastery.

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?

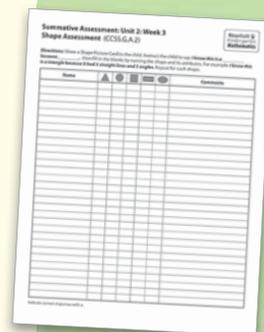
How many days have we been in school, who can tell me please?



Gingerbread Boy blackline



Backpack Bear's Math Workbook #1, Page 6



Summative Assessment Unit 2 - Week 3

DAY 1

DAY 2

Daily Routines

- Calendar
- Weather
- Number Line
- Place Value
- Hundreds Chart
- Add** ▶ “How Many Days Have We Been In School?”

Magic Math Moment

Numbers on a clock

Introduce equations

Math Concepts

Introduce

Workbook

Essential questions

The number one

Discriminate ones

Relationship between number and quantity

Write the numeral one



The number two

Discriminate twos

Relationship between number and quantity

Write the numeral two



Formative / Summative Assessment

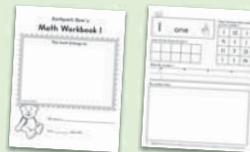
The number one

The number two

Workbooks & Media

“Hickory, Dickory, Dock”

Workbook p. 1-2



Starfall.com: “Numbers”

Workbook p. 3



DAY 3

DAY 4

DAY 5

- Calendar
- Weather
- Number Line
- Place Value
- Hundreds Chart
- “How Many Days Have We Been In School?”

Learning Centers

ABC Patterns

Introduce ten-frames

Starfall.com:

- Monthly Calendar
- Numbers: 1 – 5
- Numbers: “Count Cookies”
- Math Songs: “Five Little Bears”

The number three
Discriminate threes
Relationship between number and quantity

3

Review shapes and their properties

Introduce rhombus

The number four

Discriminate fours

Relationship between number and quantity

4

Number Activity Mats

Shape Concentration

The number three

The number four

Teacher’s Choice

Math Melodies CD
Starfall.com: “Numbers”
“Three Little Kittens”
Workbook p. 4
Nursery Rhymes



Starfall.com: “Numbers”
Workbook p. 5



Discriminate Shapes (Workbook p. 6)



Choose two volunteers to come forward. The first child holds the *Tens* container and the second child holds the *Ones* container. Say: (first child's name) **is holding the *Tens* container. How many bundles of ten do we have?** Write the numeral 1 on the board.

Say: (second child's name) **is holding the *Ones* container. How many sticks are in the *Ones* container?** Write the numeral 1 next to the 1 on the board.

Say: **When we have one set of ten and one more, we have *eleven*.**



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?**

Materials

- Prepared Hundreds Chart

Magic Math Moment

"Hickory, Dickory, Dock"

Display page 13 of *Starfall's Selected Nursery Rhymes* and read "Hickory, Dickory, Dock."

Ask: **What do you see on the clock?** (Volunteers respond.) **Right, you see many numbers. What time did the mouse run down the clock?** (Repeat the rhyme if needed.) **The mouse ran down at one o'clock.**

Repeat the rhyme and the children say it with you.

Materials

- Starfall's Selected Nursery Rhymes*, page 13

Explain that each day before the math lesson there will be a Magic Math Moment.

Introduce Essential Questions and the Number One

1 Introduce Essential Questions

Indicate the Essential Question Cards. Say: **Here are some essential questions. Essential means they are very important. We will work to answer these questions over the next several lessons.** Read the questions as you attach them to a bulletin board.

Materials

- Essential Question Cards
- Backpack Bear's Math Big Book*, page 18
- Backpack Bear's Math Workbook #1*, pages 1 and 2
- Pencils, crayons

Counting & Cardinality

A.3 - Write numbers from 0 to 20.

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

CC.2 - Supply missing number in a sequence.





2 Introduce the Number One

Write the numeral 1 on the board. Say: **This is the numeral 1. The numeral 1 stands for one.** Indicate and count one classroom object, such as a book, a pencil, a cube, etc. to demonstrate one.

Indicate *Backpack Bear's Math Big Book*, page 18. Say: **Can you find some pictures on this page that show one? Let's make a list on the whiteboard.**

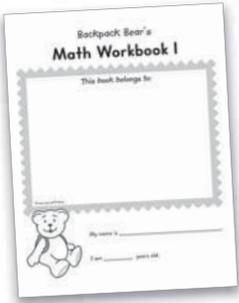
(a clock, a calendar, *Aa* is the first letter of the alphabet, we each have one body, a circle is made of one line, an ellipse is made of one line)

As the children name items, draw pictures of them on the whiteboard.

3 Introduce Backpack Bear's Math Workbook #1

Distribute *Backpack Bear's Math Workbook #1* to each child and instruct the children to turn to the first page. Say: **Put your finger on the line next to Backpack Bear.** (Check to see that the children have found the line.) **Write your name on the line.** (The children do this.) **Now find the smaller line and write the number that tells how old you are.** Circulate to see that the children have done this correctly.

Ask: **Where do you see the number 1?** (Volunteers respond.) **There is only one of you! Draw yourself in the big empty space.**

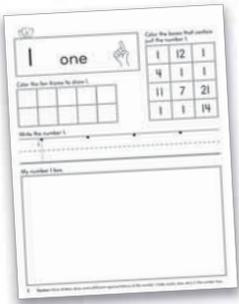


4 Discriminate the Numeral One

Instruct the children to turn to page 2. (Check to see that they have found the correct page.) Say: **Look at the top of the page. What do you see?**

Continue: **Now, put your finger on the boxes with numerals in them. Color only the boxes with the numeral 1 and place an X on the other numerals.** Address each numeral.

Ask: **Why did you put an X on 12? 14?**



5 Show One

Say: **I see a special box called a ten-frame. Say, ten-frame. It is called a ten-frame because it has ten sections. Let's count them.** Do this.

Continue: **Since we are learning about the number 1, how many sections should we color? Right, one!**

The children color one section of the ten-frame.

6 Write the Numeral One

Say: **Now practice printing the numeral one. Put your pencil on the start dot to begin each numeral.** Check to see if the children are doing this.

The purpose of this lesson is to help the children begin to identify the meaning of numbers and ways they are represented in everyday life, rather than simply using them to count by rote.



Formative Assessment

Draw Representations of the Number One

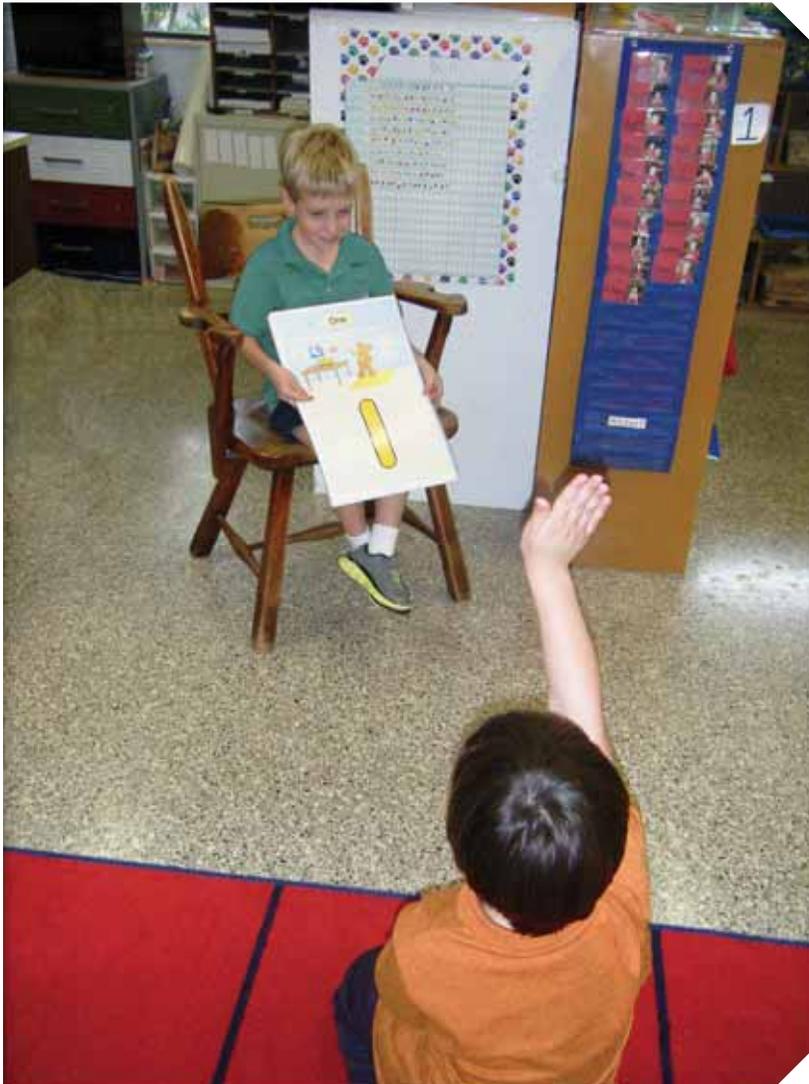
Display *Backpack Bear's Math Big Book*. Say: **Put your finger on the empty box. This is a special number box. Before we draw anything in the number box, let's review the Number 1 page and your ideas for the number one.**

Explain that the children should draw representations of one in the number box, such as a sun, one tally mark, a penny, a circle, one dot on a die, or other examples.

Complete the activity together step-by-step so all of the children are drawing the same object at the same time.

Volunteers may decide which objects from the book or list they would like to draw.

Optional: Project the workbook page for demonstration.



While drawing one balloon or one flower is acceptable, encourage the children to think of instances where there is only one of something, such as one Earth.

Say: (second child's name) **is holding the Ones container. How many sticks are in the Ones container?** Write the numeral 2 next to the 1 on the board.
 Say: **When we have one set of ten and two more, we have twelve.**



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 Math Moment

Equations

Materials

None

Choose a volunteer to stand in the front of the classroom. Ask: **How many children are in the front of the classroom? If we add one more child, how many children will there be?**

Add one more child. Continue: **Let's write an equation on the board to show what we just did.** Write $1 + 1 = 2$. Read the equation as you indicate each numeral and symbol. The children repeat after you.

The Number Two

Materials

- Backpack Bear's Math Workbook #1, page 3
- Backpack Bear's Math Big Book, page 19
- Starfall.com: Numbers

1 Introduce the Number Two

Write the numeral 2 on the board. Say: **This is the numeral 2. The numeral 2 stands for two.** Indicate and count two classroom objects to demonstrate two.

Indicate *Backpack Bear's Math Big Book*, page 19. Say: **Can you find some pictures on this page that show two?** The children do this.

Ask: **Did we miss any twos? Where else can you see the number two or two of something? Let's make a list on the whiteboard.** (partners, 2 cents, pair of socks, twins, eyes, ears, etc.)

As children name items, draw pictures of them on the whiteboard.

2 Starfall.com

Project *Starfall.com: Numbers, "2."* The children watch carefully to find other examples of two.



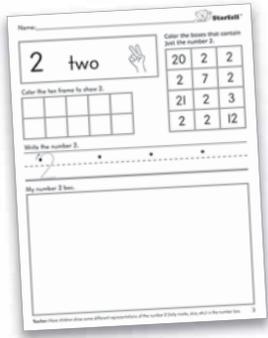
Counting & Cardinality

A.3 - Write numbers from 0 to 20.

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

Operations & Algebraic Thinking

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



3 Discriminate the Numeral Two

Distribute *Backpack Bear's Math Workbook #1* to each child. Instruct the children to turn to page 3. Check to see that they do so. Complete the workbook page together step-by-step with the children.

Optional: Project the worksheet for demonstration.

Say: **Look at the top of the page. What do you see?**

Continue: **Yes, these are all examples of two. Now, put your finger on the boxes with numerals. Color only the boxes with the numeral two, and place an X on the other numerals.** Address each numeral.

Ask: **Why did we put an X on 20? 21?**

4 Show Two

Say: **Put your finger on the ten-frame. How many boxes should we color to show two? Right, two!**

5 Write the Numeral Two

Say: **Let's practice writing the numeral two. Put your pencil on the start dot to begin each numeral.**



Formative Assessment

Draw Representations of the Number Two

Indicate *Backpack Bear's Math Big Book*, page 19.

Say: **Put your finger on the large empty box. This is a special number box. Let's review the Number 2 page and discuss your ideas for two.** Do this.

Explain that the children should draw representations of two in the number box in their workbooks, such as two tally marks, 2 on a clock, a pair of shoes, twins, pigtails, etc.

Daily  Routines

DAY

3

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.
- Say: **Today is** (name of day and date).
- Name an action such as jump, hop, clap, squat, or jumping jack, and the children do the action the number of times that correspond to the date.



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 the children have been in school.
- Remove the sticky note to reveal the next number. Say: **We have been in school** (number of days) **days.**
- 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.

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?*

100

Place Value

Indicate the *Tens* container. Say: **Here is the *Tens* container. How many bundles of ten are in the *Tens* container?** (one) **Right, one bundle. How many sticks are in a bundle?** (ten) **Remember, we need ten sticks before we can make a bundle.**

Indicate the *Ones* container. Ask: **How many sticks are in the *Ones* container?** (two) **Right, two. Today we get to add one stick to our *Ones* container.**

Choose two volunteers to come forward. The first child holds the *Tens* container and the second child holds the *Ones* container. Say: (first child's name) **is holding the *Tens* container. How many bundles of ten do we have?** Write the numeral 1 on the board.

Counting & Cardinality

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.

Say: (second child's name) is holding the **Ones** container. How many sticks are in the **Ones** container? Write the numeral 3 next to the 1 on the board.
Say: **When we have one set of ten and three more, we have thirteen.**



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 Math Moment

ABC Patterns

Materials

None

Say: **Listen to this pattern. If the rule is ABC, what would come next?**

- **Circle, square, triangle; circle, square, triangle; circle, square, ____ ?**
- **Red, blue, yellow; red, blue, yellow; red, blue, ____ ?**
- **Up, down, over; up, down, over; up, down, ____ ?**

Ask: **Who can create another ABC pattern?** Volunteers share their patterns. The class may affirm or make corrections accordingly.

Counting & Cardinality

A.3 - Write numbers from 0 to 20.

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

Operations & Algebraic Thinking

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

The Number Three

1 Math Bag Objects

Distribute math bags and instruct the children to open them. Say: **I will say a number and you take that many objects from your math bag and hold them up for us to see. Ready?**

- **Two connect cubes**
- **A shape with only 1 curved line**
- **Two different shapes**

Materials

- Backpack Bear's Math Workbook #1, page 4
- Backpack Bear's Math Big Book, page 20
- Prepared plastic bag of 10 red and 10 blue connect cubes for each child
- Math Melodies CD, Track 31
- Nursery Rhymes, page 44
- Starfall.com: Numbers, "3"
- Math bags
- Pencils, crayons

2 Introduce the Number Three

Indicate *Nursery Rhymes* page 44, and play *Math Melodies* CD, Track 31, "Three Little Kittens."

Read the rhyme and ask: **How many kittens lost their mittens? Right, three!**

3 Find Threes

Write the numeral 3 on the board. Say: **This is the numeral 3. The numeral 3 stands for three.** Indicate and count three classroom objects to demonstrate three.

Continue: **Find a shape in your math bag that has three sides and three angles and hold it up.** The children do this.

Ask: **Who knows the name of this shape?** Volunteers respond.

Indicate *Backpack Bear's Math Big Book*, page 20. Ask: **Can you find some pictures on this page that show three?**

Ask: **Did we miss any threes? Where else can you see the number three or three of something? Let's make a list on the whiteboard.** (a triangle, triplets, on a clock, etc.)



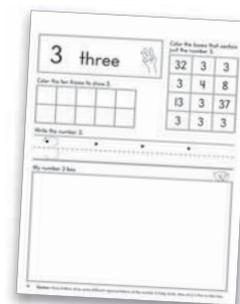
4 Starfall.com

Project *Starfall.com*: Numbers, "3." The children watch carefully, looking for other examples of three.

Formative Assessment

Draw Representations of the Number Three

Distribute *Backpack Bear's Math Workbook #1* to each child. Instruct them to turn to page 4. 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.
- Say: **Today is** (name of day and date).
- Name an action such as jump, hop, clap, squat, or jumping jack, and the children do the action the number of times that correspond to the date.



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 the children have been in school.
- Remove the sticky note to reveal the next number. Say: **We have been in school** (number of days) **days.**
- 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.

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

Indicate the *Tens* container. Say: **Here is the *Tens* container. How many bundles of ten are in the *Tens* container?** (one) **Right, one bundle. How many sticks are in a bundle?** (ten) **Remember, we need ten sticks before we can make a bundle.**

Indicate the *Ones* container. Ask: **How many sticks are in the *Ones* container?** (two) **Right, two. Today we get to add one stick to our *Ones* container.**

Choose two volunteers to come forward. The first child holds the *Tens* container and the second child holds the *Ones* container. Say: (first child's name) **is holding the *Tens* container. How many bundles of ten do we have?** Write the numeral 1 on the board.

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.

Say: (second child's name) is holding the **Ones** container. How many sticks are in the **Ones** container? Write the numeral 4 next to the 1 on the board.
Say: **When we have one set of ten and four more, we have fourteen.**



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 Math Moment

Ten-Frames

Display the Classroom Ten-frame on the board. Say: **Here is a ten-frame. Do you remember why it is called a ten-frame? Right, it's called a ten-frame because it has ten boxes. I will put six magnets in the ten-frame.** Begin with the top left box and place a dot in six of the sections.

Say: **Let's count to see if I am correct. Count the magnets. Did you notice that I started in the first box and placed the magnets in the order of the boxes?**

Remove the magnets. Say: **Now you try.** Volunteers take turns to announce a number from 0 to 10 and place the corresponding number of magnets in the ten-frame.



Materials

- Whiteboard, markers
- Classroom Ten-frame
- Magnets (to fit ten-frame)

The Number Four

Essential Question: How are two-dimensional shapes the same and how are they different?

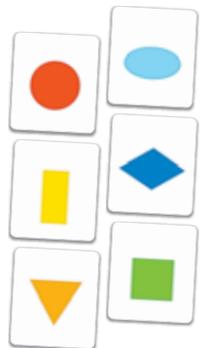
1 Review Shapes

Place the *triangle, circle, rectangle, ellipse, square, and rhombus* Picture Cards in a pocket chart.

Say: **Here are some shapes we have learned.** Indicate and name each shape.

Materials

- Shape Cards: *circle, ellipse, rectangle, rhombus, square, and triangle*
- Starfall.com*: Numbers, "4"
- Backpack Bear's Math Big Book*, page 21
- Backpack Bear's Math Workbook #1*, page 5
- Pencils, crayons
- Pocket chart



Counting & Cardinality

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.

Geometry

A.2 - Correctly name shapes.

Continue: **Raise your hand if you can find a shape with one curved line that is the same distance from the center point.** A volunteer removes the circle from the pocket chart, identifies it, and holds it in front of the class.

Continue:

- **Find the shape that has three straight lines and three right angles.** (triangle)
- **Find the shape that has one curved line that is NOT the same distance from the center point, and that looks like an egg.** (ellipse/oval)
- **Find the shape that has four equal lines and four equal angles.** (square)
- **Find the shape that has four straight lines and four angles. Two of the lines are longer than the other two.** (rectangle)

Place the Shape Cards back in the pocket chart. The volunteers return to their seats.

2 Introduce the Number Four

Write the numeral 4 on the board. Say: **This is a four. The numeral 4 stands for four.** Indicate and count four classroom objects to demonstrate four.

Ask: **Which shapes in the pocket chart have four straight lines?** (square, rectangle, rhombus)

3 Find Fours

Indicate *Backpack Bear's Math Big Book*, page 21. Ask: **Can you find some pictures on this page that show four?** The children do this.

Ask: **Where else can you see the number four or four of something?** (quadruplets, four-legged animals, four tires on a car, etc.)

4 Starfall.com

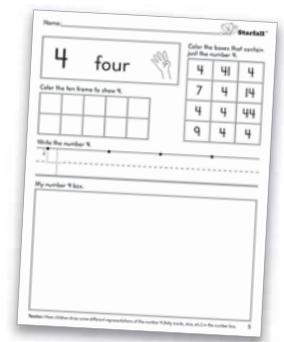
Project *Starfall.com*: Numbers, "4." The children watch carefully, looking for other examples of four.



Formative Assessment

Draw Representations of the Number Four

Distribute *Backpack Bear's Math Workbook #1* to each child. The children turn to page 5. Complete the page together as with previous workbook pages.



Learning Centers

DAY

5

1 Computer

The children explore:

- Monthly calendar
- Numbers: 1-5
- Numbers: "Count Cookies"
- Math Songs: "Five Little Bears"
- Holidays: "Gingerbread Boy"

The children may navigate to other *Starfall.com* math activities after they have explored those suggested above.

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.

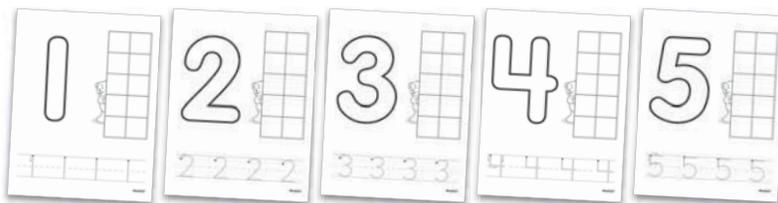
Geometry

A.2 - Correctly name shapes.

2 Number Activity Mats

Each child selects a Number Activity Mat. The children roll play dough into a "snake" and use it to form the number on their mats. They then form small balls of play dough 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 1-5
- Play dough

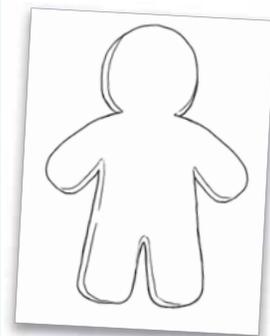
3 Gingerbread Boy Shape Activity

The children use crayons to draw shapes on Gingerbread Boy to represent his eyes, nose, and buttons. Then they cut out Gingerbread Boy. They may use the Shape Cards for ideas.



Materials

- Shape Cards: circle, ellipse/oval, rectangle, square, and triangle (4 sets)
- Gingerbread Boy worksheet for each child
- Scissors, crayons



Remember to continue the Daily Routines in addition to the Learning Centers on Day 5 of each week!

