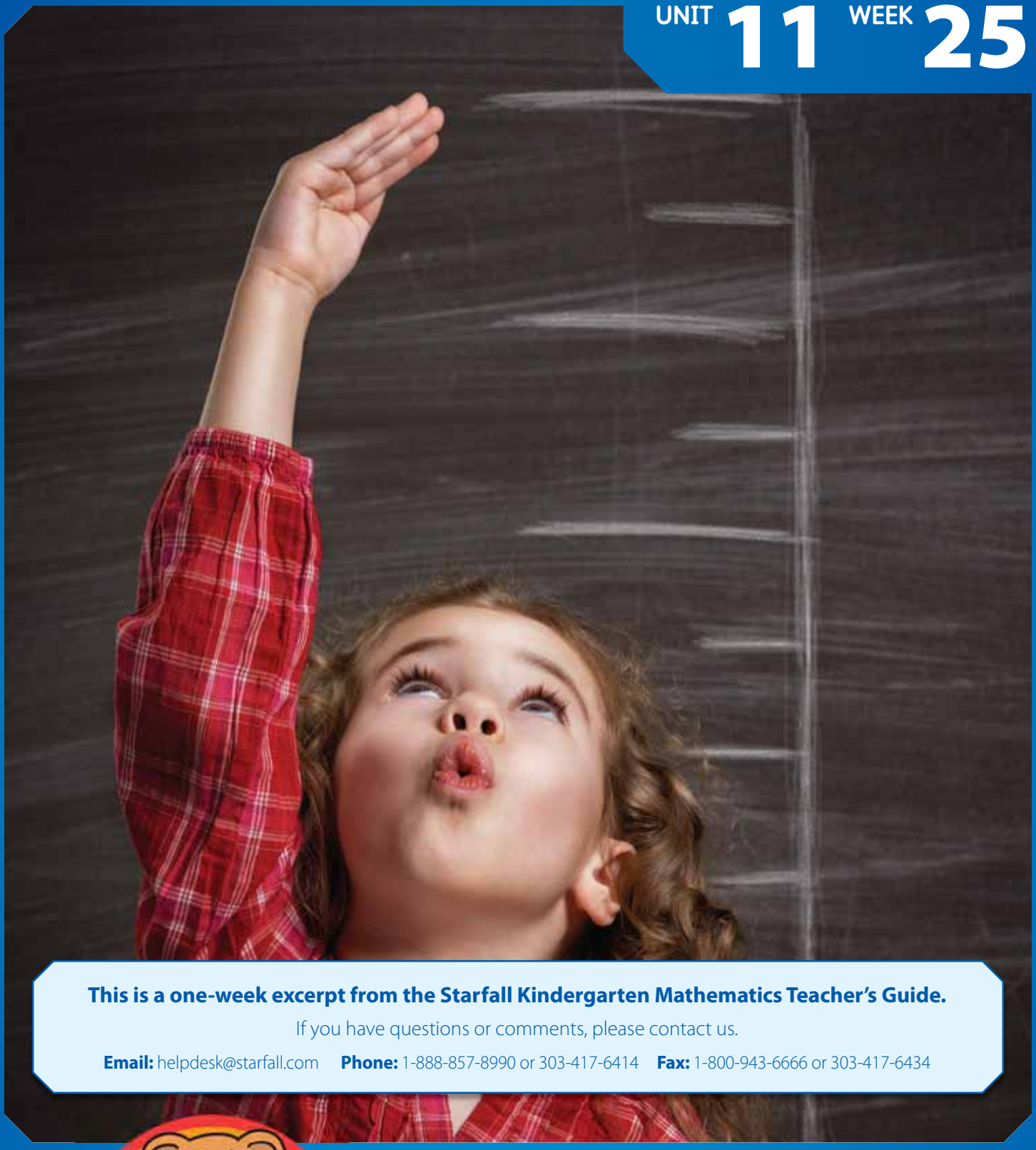
UNIT 11 WEEK 25



This is a one-week excerpt from the Starfall Kindergarten Mathematics Teacher's Guide.

If you have questions or comments, please contact us.

Email: helpdesk@starfall.com **Phone:** 1-888-857-8990 or 303-417-6414 **Fax:** 1-800-943-6666 or 303-417-6434

Starfall Kindergarten MATHEMATICS

Basic Measurement

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Basic Measurement

Week 25

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Fractions 493
Height and Length 496
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UNIT 11

WEEK 25

Week 25 Summary

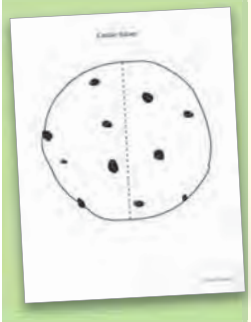
This week the children will be introduced to the concept of fractions as parts of a whole, and groups of objects. They will solve story problems using fractions, learn to use nonstandard units to measure height and length, and order objects by length. The children will also:

- Practice making estimates and smart guesses
- Learn that the number of units of measurement changes with the length of the unit
- Divide groups of objects into equal smaller groups (introduction to the concept of fractions)
- Play "Guess The Mystery Number" a variation of "Hangman"

Preparation

DAY 1

You will need one set of 16 connect cubes, and one bag of 12 connect cubes for each group of three or four children.



"Cookie Halves" worksheet

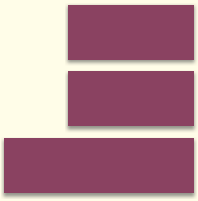
DAY 2

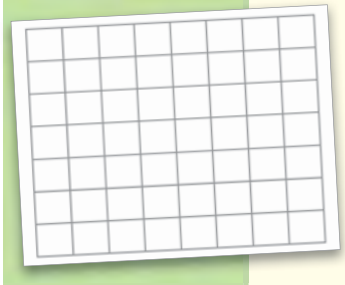
Duplicate a copy of the "Cookie Halves" worksheet for each child.

DAY 3

You will need a collection of small beads or other small objects to use for estimation. You will also need craft sticks and connect cubes.

Create three construction paper rectangles, two that are the same length and at least two craft sticks long, and one that is at least three craft sticks long. Save the paper rectangles for use on **Day 4**.





Grid Paper worksheet

Duplicate a grid paper worksheet strip for each child, long enough to accommodate their names, and cut them apart.

Prepare a chart paper labeled "Comparing Names." After writing their names on the grid paper strips, the children will glue the strips to this chart in order from shortest to longest.

DAY 4

Display the three construction paper rectangles from **Day 3** on a whiteboard in random order. You will also need craft sticks and connect cubes for the children to use as nonstandard units of measure.

Prepare a sheet of chart paper to replicate *Backpack Bear's Math Workbook #2*, page 31.

Object	Cubes	Sticks

DAY 5

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

Activity Center 2 — Have a 1-10 game spinner available. With each spin the children will add connect cubes of varying colors to play "Build a Tower."

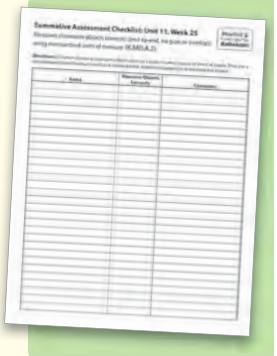
Activity Center 3 — Provide the children with various manipulatives to use as units of measure, such as connect cubes, paper clips and dominoes. They will also need objects to measure such as pencils, books and cereal boxes. Duplicate a "Learning Center Measurement" worksheet for each child.

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

Summative Assessment — The children will use several classroom objects such as books, markers, paper, and crayons to measure, and units of measure such as connect cubes or paper clips.

Prepare a Summative Assessment Checklist for Unit 11, Week 25.

"Learning Center Measurement" worksheet

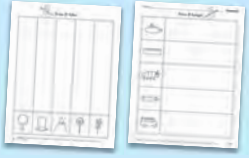


Summative Assessment Unit 11 - Week 25

UNIT 11

WEEK 25

	DAY 1	DAY 2
Daily Routines	• Calendar • Weather • Number Line • Place Value • Hundreds Chart	
Magic Math Moment	Creating equal groups	"Guess the Mystery Number"
Math Concepts	Divide a group into equal parts Introduce the concept of fractions Use pictures to solve math problems	Identify a number that comes between Introduce halves and fourths Introduce fractions as parts of a whole object or group Use fractions to solve story problems Introduce ½
Formative / Summative Assessment	Divide a group into equal parts (using pictures)	Divide a cookie into halves
Workbooks & Media	Workbook page 29 	Workbook page 30 

DAY 3	DAY 4	DAY 5
• Calendar • Weather • Number Line	• Place Value • Hundreds Chart	
Estimation and comparison	Measuring height	**Learning Centers** *Starfall.com:* • Monthly Calendar • Geometry & Measurement: "Measurement" and "Make Shapes" 1
Estimate and count to compare Review height and length Measure and compare lengths using different units of measure	Measure and compare height (shortest to tallest) Units of Measure Introduce Baseline	"Build a Tower" 2 Measure the Objects 3
Measure length of names using grid paper as a unit of measure	Measure classroom objects using two different units of measure and compare	Teacher's Choice 4
Backpack Bear's Math Big Book, page 41	*Starfall.com*: Geometry and Measurement, "Measurement" Workbook page 31 	Longer/Taller 5 "Learning Center Measurement" Summative Assessment: Measure Classroom Objects (Length) Workbook pages 32 and 33 

Magic Math Moment

Creating Equal Groups

Materials
- ☐ None

Select four children to stand in the front of the classroom. Say: **Here are four children. These four children will form pairs or partners. How many children will be in each pair? Right, when you work in pairs there are two children in each pair.**

Partner the four children into two pairs. Ask: **Does each pair have an equal** (or the same) **number of children? Yes, each pair of partners has two children.** The four children return to their seats.

Select nine children to stand in the front of the classroom. Say: **Here are nine children. These nine children will form groups of three. Let's see how many groups of three they can form.**

Choose three of the children to move apart from the others. Say: **Let's count the remaining children.** (Do this.) **Are there enough children left to form another group of three?**

Choose three more of the children to create another group of three. Continue: **Now there are two groups of three. How many children are left? Right, three! What does that mean? Yes, it means there are enough children left to form another group of three.**

Choose three more of the children to create another group. Ask: **How many groups are there? Does each group have an equal or same number of children? Yes, there are three children in each group.**

Operations & Algebraic Thinking

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

Measurement & Data

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

Fractions

F.1 - Name and represent fractional parts of a whole.

Introduce Fractions

Essential Question: *How can we show equal parts?*

Materials
- ☐ One bag of 16 connect cubes
- ☐ One bag of 12 connect cubes for each group of three or four children
- ☐ *Backpack Bear's Math Workbook #2*, page 29
- ☐ Pencils, crayons

1 Demonstrate Equal Parts

Indicate a bag of 16 connect cubes. Say: **Here is a bag of connect cubes. Let's count how many connect cubes there are in the bag.** Count the connect cubes with the children.

Say: **There are sixteen connect cubes in the bag. How could I share the connect cubes with three children so we all have the same number of connect cubes?**

Select three children to come to the front of the classroom. Say: **I will give one connect cube to each of these three children and one to myself.** (Do this.) **Are there enough connect cubes to give each of us another one?**

Explain: **Yes, we can tell there are enough connect cubes left because there are more than four.** Continue to distribute connect cubes to the children and yourself until there are no more remaining in the bag.

Each of the three children tells how many connect cubes he or she has. Ask: **Do we all have the same number of connect cubes?** (Volunteers respond.) **Yes, each of us has four connect cubes, so we all have an equal, or same number. We shared the bag of connect cubes equally.**

2 Share Cubes in Groups

Continue: **Now you will have a chance to work with your friends to share a bag of connect cubes equally.**

Divide the children into groups of three or four and distribute a bag of twelve connect cubes to each group. Say: **First count the connect cubes in your bag. Then work together to decide on a strategy for sharing the connect cubes equally.**

Circulate and observe as the children work together. When the groups have finished, gather the children together and each group shares the strategy used to divide the connect cubes equally. Be sure the groups tell how many connect cubes each child received. The class determines whether the groups divided the connect cubes equally.

3 Use Pictures to Solve Problems

Say: **We can also use pictures to help solve math problems. If there are six lollipops and we want to share them equally among three friends, we could draw a picture to help us figure out how many lollipops each friend would get.**

Draw six lollipops on a whiteboard and three stick people beneath them. Say: **Let's give each stick person one lollipop.** Draw a lollipop next to each stick person. Each time you do, cross out a lollipop above.

Ask:

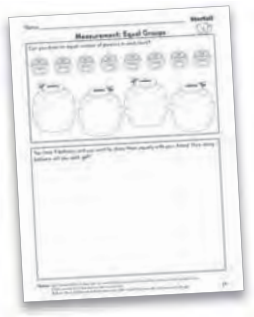
- **Do the stick people each have an equal number of lollipops?**
- **Are there still enough lollipops to share with the three friends?**

Explain: **Yes, there are enough lollipops to share because there are more than three left.** Share the remaining lollipops.

Ask:

- **Does each stick person have an equal or the same number of lollipops?**
- **Did we share the lollipops equally?**
- **How many lollipops does each stick person have?**

4 Divide Pennies into Honey Jar Banks



Distribute *Backpack Bear's Math Workbook #2* and instruct the children to turn to page 29. If you have projection capability, project the workbook page for demonstration. If you don't, draw 8 pennies and 4 honey jar banks on a whiteboard.

Say: **Look at the pennies and the honey jar banks. How can we put an equal number of pennies into each honey jar bank?** (Volunteers respond.) **Yes, we can do it the same way we did the lollipops and the stick people. Let's start by putting one penny in each bank.** Demonstrate how to draw a penny in each bank one at a time. Cross out a penny above each time you draw one in a bank. Pause for the children to do the same.

Ask: **Does each honey jar bank have an equal, or the same number of pennies? Are there still enough pennies to place in the banks? Why?** (There are four left.) Repeat for the remaining pennies.

Ask:

- **How many pennies are in each honey jar bank?**
- **Does each honey jar bank have an equal number of pennies in it?**

Formative Assessment

Draw Pictures to Solve Problems

Say: **Now you will draw pictures at the bottom of the workbook page to solve a math problem. Listen to the math problem first. Ready?**

- **If you have four balloons and you want to share them equally with your friend, how many balloons would you and your friend each get?**

The children complete their drawings individually. Volunteers share results with the class.

Research suggests that young children need to understand the concept of sharing a group of objects equally before they can understand sharing a single object equally (as with fractions).

Magic Math Moment

"Guess the Mystery Number" (A variation of "Hangman")

Materials
- ☐ None

Draw a circle on a whiteboard. Say: **This is one whole circle.**

Divide the circle in half. Continue: **I divided the circle in half. How many parts does the circle have now? Right, the circle has two parts, but it is still one circle.**

Divide the circle into fourths. Say: **Now the circle is divided into more parts. How many parts does the circle have now? Yes, it has four parts, but it is still one circle.**

Draw a horizontal line next to the circle on which to write the "mystery number." Write "Teacher" and "Class" on the whiteboard as headings.

Say: **Let's play a game. If I win I will put a tally mark under "Teacher." If you win, I will put a tally mark under "Class." Ready? I am thinking of a number between zero and ten. Raise your hand if you have a guess. If you guess the correct number I will write that number on the line and the class will get a point. If you don't guess the mystery number, I will write your guess in one of blank spaces in the circle.**

Ask: **How many guesses will you get? Right, you will get four guesses. If you don't guess the mystery number in four guesses, I will get a point!**

Play as time allows. As children make incorrect guesses, take the opportunity to use language such as "You have used one of four guesses" or "You have used three of four guesses."

Counting & Cardinality

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

Fractions

F.1 - Name and represent fractional parts of a whole.

Fractions

Essential Question: *How can we show equal parts or halves?*

Materials
- ☐ *Backpack Bear's Math Workbook #2*, page 30
- ☐ Pencils, crayons, glue
- ☐ Cookie Halves worksheet for each child

1 Whole and Part

Draw a square on a whiteboard. Say: **This is one whole square. Draw a line through the middle of the square so it is divided in half.**

Say: **Look at both parts of this square. Are the two parts equal or the same size?**

Draw a domino, a cube, and a craft stick on the whiteboard.

Say: **Look at these objects. Which one has 2 parts? Right, a domino has two parts that make up the one domino!**

2 Introduce Fractions

Say: **Today we will talk about *fractions*. Say, *fractions*.** (Children repeat, *fractions*.) **Does anyone know what a *fraction* is?**

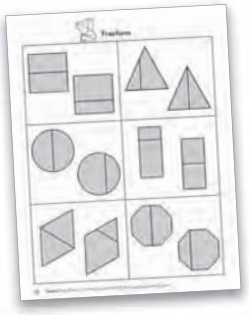
Explain: **Fractions are parts of a whole object or a group of objects.**

Indicate the square. Say: **We started with one whole square. Then we divided the square into parts. Ask:**

- **How many parts is the square divided into?** (two)
- **What do you notice about the two parts?** (They are equal, or the same size.)

Draw another square next to the first one with a line through it creating two parts that are not equal. Ask:

- **What do you notice about this square?** (it is also divided into two parts)
- **Are both parts of the square equal or the same size?** (this time the two parts are not the same size)



3 Equal or Not Equal

Distribute *Backpack Bear's Math Workbook #2* and instruct the children to turn to page 30.

Choose volunteers to Identify each shape. The children decide whether each shape has two equal parts, or whether they have one part that is larger than the other. They circle the shapes with two equal parts.

4 Story Problems

Ask:

- **If there are two children and one cookie what could you do so the children could share that cookie?** (You could cut the cookie in half and each child would have one half of the cookie.)
- **Do you think the cookie should be divided into two equal parts, or is it okay for one child to get a bigger piece?** (In order to be fair, the cookie should be divided into two equal parts.)
- **What if there is only one sandwich and two hungry children? What could you do so each of the children gets part of the sandwich?** (You could cut the sandwich into two equal parts.)

Choose six volunteers to stand in the front of the classroom. Instruct them to divide the group in half, or into two equal parts. The children do this. Ask: **Are the two groups equal? How do you know?**

Count the children in each group to verify they have the same number. Explain that since both groups are equal, each group is one-half of the whole group.

5 Introduce the Fraction Sign ½

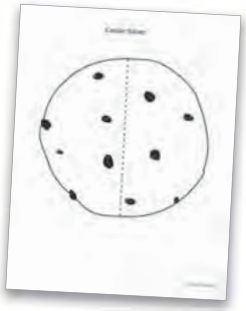
Write ½ on a whiteboard. Ask: **How many groups are there now?** (two) **Right, there are two groups.**

Indicate the bottom number. The bottom number is called the denominator. It tells how many parts of the group there are. Point to one of the groups. Say: **The top number is called the numerator. It tells us this is one of the two groups. We read this number one-half.**

Repeat this procedure with an uneven number of children. After the class tries to divide the odd-numbered group in half, ask the children why it doesn't work.

Say: **When we divide an object or a group of objects in half, it means that both halves must be equal** (same size or number)**. When the whole group has an odd number of objects, it can't be divided equally.**

Formative Assessment



Cookie Halves

Write "This is my half." and "This half is from _____." on the whiteboard.

Distribute a "Cookie Halves" worksheet to each child. Ask: **What do you notice about this cookie?** (Volunteers respond.) **Right, it has a dotted line down the middle. Why do you think that is?**

Explain: **Yes, the dotted line shows where you would cut or break the cookie in half. Use your scissors to cut the cookie in half.** The children do this.

Continue: **Now you have two halves, one to keep and one to share with a friend.**

Instruct the children to turn to a blank journal page in the back of their workbooks and glue one half of the cookie on the page. Below the cookie they copy "This is my half." from the whiteboard.

Say: **You still have one half of the cookie to share!** Each child finds another child with whom to "share" the other half of his or her cookie. When they have done so, the children return to their seats and glue the other half of the cookie on the next journal page. Below it, they copy "This half is from _____." from the whiteboard, and add the name of the child who gave them their half in the space. If you have an odd number of students, make one cookie half for Backpack Bear to share with the remaining child.

Magic Math Moment

Estimation and Comparison

Materials
- ☐ Collection of beads or other small objects

Remove a handful of beads from the collection. Say: **Let's see how well you can estimate. How many beads do you think I have in my hand?** The children take turns estimating the number of beads. Count the beads together to check their estimations.

Choose a volunteer to remove a handful of the same objects. The children estimate the number of beads in the child's hand. Count the beads together to check their estimations.

Ask: **Which of us held more beads? How do you know?** Compare the two numbers to confirm (or correct) their responses.

Measurement & Data

A.2 - Compare two objects with a common measurable attribute.

MD.3 - Measure using nonstandard units.

Estimation

E.1 - Understand the meaning of estimation.

Height and Length

Materials
- ☐ *Backpack Bear's Math Big Book*, page 41
- ☐ Craft sticks
- ☐ Connect cubes
- ☐ Three prepared construction paper rectangles
- ☐ Grid paper strips
- ☐ Prepared chart paper
- ☐ Glue sticks

Essential Question: *What can we measure?*

1 Review Height and Length

Indicate *Backpack Bear's Math Big Book*, page 41.

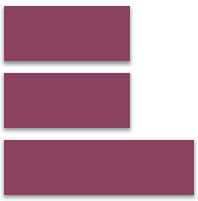
Say: **Backpack Bear would like to teach us how to measure how tall or high something is.**

Read: **I can use many different tools to measure how long or how tall something is.** The children identify and discuss the different tools illustrated.

2 Measure and Compare Lengths

Indicate the three construction paper rectangles. Ask: **Which two of these rectangles are the same length?**

Remind the children that in order to compare lengths, the baselines of the rectangles must be lined up evenly. (Demonstrate)



Ask: **Which rectangle is longer?** Choose a volunteer to line up the rectangles to determine the answer.

Say: **The length of an object can be divided into equally-sized smaller lengths called *units*. Say, *units*.** (Children repeat, *units*.)

3 Measure Using Craft Sticks

Indicate a craft stick. Say: **Here is a craft stick. Let's use craft sticks as units to measure one of the rectangles.** Demonstrate how to measure one of the shorter rectangles using craft sticks. Discuss the importance of lining up the craft sticks, with no gaps or overlaps, from one end of the rectangle to the other.

Ask: **How many craft sticks long is the rectangle?**

Indicate the longer rectangle. Ask: **Who can estimate how many craft sticks long this rectangle might be? Remember when we estimate we're making a smart guess. Would you estimate that we will use more or fewer craft sticks to measure this rectangle?** A volunteer measures the rectangle to check the estimation.

4 Measure Using Cubes

Say: **Let's use a different unit of measure. We can use a connect cube.**

Indicate the craft sticks and connect cubes. Say: **Here are a craft stick and a connect cube. Are the craft sticks and connect cubes the same length? How do you know?** (Volunteers respond.) **Right, we can compare their lengths by placing them side-by-side, making sure their baselines are even.** (Demonstrate)

Say: **Now, look at the connect cube. If we use this connect cube as the unit of measure, do you think the rectangle will be the same number of connect cubes long as it is craft sticks long? Let's find out.** Volunteers use connect cubes to measure the length of the rectangle.

Ask: **How many connect cubes long is this rectangle?** Write "The rectangle is (number) cubes long." on a whiteboard.

Ask:

- **Did it take more craft sticks or connect cubes to measure the rectangle?**
- **Why does it take more connect cubes than craft sticks to measure the rectangle?**

Discuss the size of the different units. Lead the children to conclude that the shorter the unit of measure, the more units it takes to measure the length of an object, and the longer the unit of measure, the less units it takes to measure the length of an object.

Formative Assessment

Length of Names

Part 1

Write a long name, such as Samantha, on a whiteboard using thin, closely-spaced letters. Then write a much shorter name, such as Alex, stretching out the letters so the shorter name appears longer than the longer name. Ask:

- **Which name is longer?**
- **Which name has more letters?**

Count the letters in each name together with the children.

Ask: **If Samantha's name has more letters, why does it look shorter?** Lead the children to understand Samantha's name looks shorter because the letters are written closely together.

Continue: **Why does Alex's name look longer?** Lead the children to understand Alex's name looks longer because the letters are spread far apart.

Ask: **How can we tell for sure which name is actually longer?** (Volunteers respond.) **Right, we can write the names using letters that are the same size. Then we can measure the names to see which one is longer.**

Part 2

Display a grid paper strip on a whiteboard. Say: **Let's use the square on this grid paper as a unit of measure.** Choose a name (other than the name of a child in your class) and demonstrate how to write one letter in each square.

Ask: **How many letters are in this name?**

Distribute a grid paper strip (long enough to accommodate the child's name) to each child. Explain to the children they are to write their names, one letter in each square, on their grid strips.

Indicate the prepared chart paper. Discuss how the squares on the paper help keep the letters the same size, and reiterate why that is important.

Ask: **How can we create a chart that will order your names from shortest to longest?** Discuss.

The children use the strategies they discussed to glue their name strips in order on the chart paper.

Magic Math Moment

Measuring Height

Materials
- ☐ Computer navigated to *Starfall.com*

Gather the children around a classroom computer (with projection capabilities if possible) and navigate to *Starfall.com*: Geometry and Measurement, "Measurement."

Say: **Today we will learn how to measure the height of an object.**

Navigate to "tools." Say: **We will measure the height of each tool. What unit of measure should we use?** Each screen will measure using a penny, nickel, or dime. The children assist in dragging the measurement tools to determine the height of each tool.

Counting & Cardinality

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

Measurement & Data

A.2 - Compare two objects with a common measurable attribute.

MD.3 - Measure using nonstandard units.

Units of Measure

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

Materials
- ☐ Three prepared construction paper rectangles of varying lengths from **Day 3**
- ☐ *Backpack Bear's Math Workbook #2*, page 31
- ☐ Prepared chart paper
- ☐ Several connect cubes and craft sticks for each child or pair of children
- ☐ A classroom book to measure

1 Shortest to Tallest

Gather the children together. Indicate the three construction paper rectangles of varying lengths, displayed in random order.

Ask: **Who remembers when we looked at rectangles and we tried to find someone in the class with a rectangle the same length?**

Say: **Let's look closely at these rectangles and put them in order from shortest to tallest.** A volunteer arranges the rectangles in order.

Select four children of different heights to come forward. Say: **Compare your heights and arrange yourselves from shortest to tallest.** The children do this. The class gives a thumbs-up if the order is correct, or they offer suggestions for reordering the children if it is not.

Ask:

- **What if** (shortest child's name) **stands on a chair?** Assist the child to do this safely.
- **Is** (child's name) **still the shortest child in this group?**
- **What changed?**

Explain: **Right,** (child's name) **is still the shortest child in this group, but now he** (or she) **is standing on a chair, so he** (or she) **looks taller. Remember, when we measure we must measure from the same baseline.**

This activity serves as a preview for future measurement activities, which will introduce inches, feet, and conversion.

Ask: **Where is the baseline for the other three children?** (Volunteers respond.) **Right, it's the floor.** (Child's name) **must also be measured from the floor.** Assist the child down from the chair to find his or her place in the group.

Repeat this activity until all of the children have a turn. Reinforce the fact that all of the children should be measured while standing on the floor, because it is their baseline.

Formative Assessment

Measure Objects

Say: **Today we will measure objects in the classroom using two different units of measure.**

Indicate a book. Say: **Let's measure this book using connect cubes. Remember, when we measure, the connect cubes must be lined up with no gaps or overlaps from one end to the other.** A volunteer uses connect cubes to measure the length of the book.

Ask: **How many connect cubes long is the book?**

Indicate the prepared chart paper. Draw a book under "Object." A volunteer writes the number of connect cubes under "Cubes."

Say: **Now let's use a different unit of measure. We will measure this same book using craft sticks. A volunteer uses craft sticks to measure the book.** Assist if necessary to demonstrate that the sticks must be end to end.

Ask: **How many craft sticks long is the book?** A volunteer writes the number of crafts sticks under "Sticks."

Distribute *Backpack Bear's Math Workbook #2* and instruct the children to turn to page 31.

Say: **We just measured a book using connect cubes and then craft sticks. Draw a book under the word "Object."** The children do this.

Ask: **What number will you write under "Cubes?"** Volunteers respond, and the children write the number.

Continue: **How many craft sticks long is the book? Write that number under "Sticks."**

Explain: **Now you will find objects in the classroom and draw the objects under "Object." Then you will measure the object with connect cubes and record the number under "Cubes." Next you will measure the same object with craft sticks and record the number under "Sticks."**

Note: The children may work with partners, but they should record their information individually. Circulate to be sure the children are lining up their connect cubes and craft sticks properly.

Gather the children together to share their results. Ask: **Why is the number of connect cubes always greater than the number of craft sticks?** (Volunteers respond.) **Right, the connect cubes are shorter than the craft sticks, so it takes more of them to equal the length of the objects.**

Learning Centers

Counting & Cardinality

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

Measurement & Data

A.1 - Describe measurable attributes of objects.

MD.3 - Measure using nonstandard units.

1 Computer

Materials
- ☐ Computers navigated to *Starfall.com*

The children explore:

- Monthly calendar
- Geometry and Measurement: "Measurement"
- Geometry and Measurement: "Make Shapes"

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

2 Build a Tower

Materials
- ☐ 1-10 game spinner
- ☐ Connect cubes (several different colors)

The children take turns spinning the spinner and building individual towers using the corresponding number of connect cubes. With each spin, the child chooses a different color connect cube(s) to add to his or her tower.

Play continues for the duration of the learning center rotation. The children compare their towers. The child with the tallest tower wins.

3 Measure the Objects

Materials
- ☐ Manipulatives to use as units of measure (connect cubes, paper clips, dominoes)
- ☐ Objects to measure (pencils, books, cereal boxes, Backpack Bear)
- ☐ "Learning Center Measurement" worksheet for each child

The children use a variety of different units of measure (cube, paper clip, dominoes) to measure pencils, books, cereal boxes and Backpack Bear. They record their results on "Learning Center Measurement" worksheets.

4 Teacher's Choice

Review or expand a skill from this unit according to the needs of your students.

5 Summative Assessment: Longer/Taller

Materials

- ☐ *Backpack Bear's Math Workbook #2*, pages 32 and 33
- ☐ Pencils, crayons
- ☐ Classroom objects to measure (book, marker, paper, crayon)
- ☐ Units of measure (connect cubes, paper clips, dominoes)
- ☐ Summative Assessment Checklist for Unit 11, Week 25

Distribute *Backpack Bear's Math Workbook #2* and instruct the children to turn to pages 32 and 33.

The children follow the directions at the bottom of each workbook page, and draw objects that are taller (page 32) and longer (page 33) than those pictured.

As the children work to complete their workbook pages, perform the following Summative Assessment individually with each child.

- Provide the children with classroom objects to measure such as a book, marker, paper, and crayon, and units of measure such as a connect cubes, dominoes and paper clips.
- Allow each child to decide which object and unit of measure he or she would like to use.
- The child measures the object.

For each child note whether he or she is able to line up the units of measure end to end, with no gaps or overlaps, to measure the object on the Summative Assessment Checklist for Unit 11, Week 25.