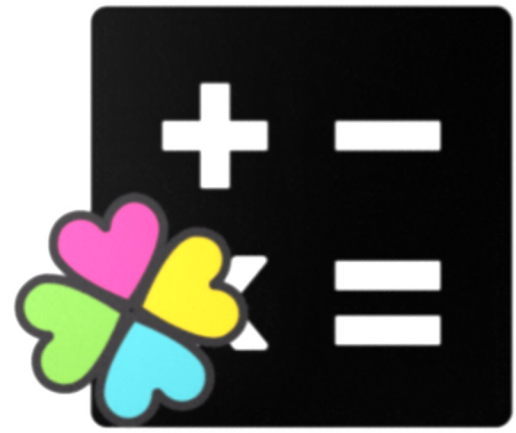


SECOND GRADE

UNIT SEVEN MEASUREMENT ACTIVITIES



Lucky to Learn
MATH



Why?

This is the hands-on, standards-aligned, collaborative, and engaging measurement unit you've been looking for! This resource can also be used as a supplement to other math programs.



Is your current math curriculum dull and lifeless?

This unit is so engaging! It has hobby - themed lessons to pique student interest, while also ensuring they master the math.

Looking for resources that are easy to prep?

The lesson plans include icons to help you choose which activities to use during the day, and teaching slides that guide you & your students through the lesson.

Wanting your students to love math?

The math block routine will scaffold and guide students to gain deep levels of understanding, feel successful, and love math!

PERFECT FOR

MATH BLOCK

NUMBER TALKS

SUPPLEMENTAL PRACTICE

INTERVENTIONS



WHAT'S INCLUDED?

- Teaching slides
- Lesson plans
- Warm-ups
- Math chats
- Mini lessons
- Collaborations
- Worksheets
- Differentiation
- And so much more!



SKILLS INCLUDED

Aligned to CCSS & TEKS

METERS
A meter is a metric unit of length.
Abbreviation: m.
There are 100 centimeters in a meter.
This is a meterstick.
This is a yardstick.
A METER IS SLIGHTLY LARGER THAN A YARD.
1 m. = 100 cm
1 yd. = 36 in.
A meter is about the height of a kitchen counter.

MEASURING ON A BROKEN RULER
A broken ruler is a ruler that doesn't start at 0.
STEPS TO MEASURING ON A BROKEN RULER:
1. Start at the beginning of the object.
2. Find the nearest inch at the end of the object.
3. Subtract the starting point from the ending point.

CHOOSING A MEASUREMENT TOOL
We can choose different measurement tools.
TOOL UNITS WHAT CC WE MEAS
ruler centimeters, inches, foot
yardstick inches, feet, yard
meterstick millimeters, centimeters, meter
measuring tape inches, feet, yards, millimeters, centimeters, meters
These can also be called "dot plots".

LINE PLOTS
A line plot shows data on a number line by showing how frequently something occurs.
Line plots often show measurement data.
LENGTH OF PENCILS
18 pencils were measured in inches. This line plot shows the data we collected.
Each X represents one pencil that was that length.
The numbers along the bottom represent the lengths in inches that were measured.

NON-STANDARD UNITS OF MEASUREMENT
A unit is what you use to measure. Standard units are what people use so they can describe measurements in the same way (inches, centimeters). A non-standard unit can be used to measure anything.
You can measure with anything!
HOW TO MEASURE WITH NON-STANDARD UNITS:
1. Pick one object as your unit. (All units must be the same.)
2. Start and end at the edges.
3. Keep your units straight.
4. No overlaps or gaps!

USING A RULER
We use a ruler to measure. Always measure from zero or the edge (not the edge of the ruler) when you measure.
Find the length by counting the edge.
This pencil is 6 inches long.

INCHES
An inch is a customary unit of length.
Abbreviation: in.
There are 12 inches in a foot.
12 inches = 1 foot
WE USE INCHES TO MEASURE THINGS SMALLER THAN A FOOT.
Marker = 6 in., Eraser = 6 cm, Crayon = 8 cm.

CENTIMETERS
A centimeter is a metric unit of length.
Abbreviation: cm.
There are 30 centimeters on a ruler.
12 inches = 1 foot
WE USE CENTIMETERS TO MEASURE SMALL THINGS.
When you hear "INCH" think: thumb, top of thumb, base-10 unit, wild hair.
When you hear "CENTIMETER" think: width of a pencil eraser.

FEET
A foot is a customary unit of length.
Abbreviation: ft.
A foot is the length of a ruler.
12 inches = 1 foot

YARDS
A yard is a customary unit of length.
Abbreviation: yd.
3 feet = 1 yard
36 inches = 1 yard
A yard is about the same width as a door.
This is a yardstick.
WE USE YARDS TO MEASURE THINGS THAT ARE LARGER THAN A FOOT.

MEASUREMENT UNIT OVERVIEW

MEASUREMENT: CUSTOMARY UNITS

WEEK ONE

- Measuring with non-standard units
- Using a ruler
- Measuring in inches
- Measuring in feet
- Measuring in yards
- Estimating lengths
- Comparing and ordering lengths

CC:
2.MD.1
2.MD.2
2.MD.3
2.MD.4

TEKS:
2.9a
2.9b
2.9d
2.9e

MEASUREMENT: METRIC UNITS

WEEK TWO

- Measuring in centimeters
- Measuring in meters
- Estimating lengths
- Comparing and ordering lengths
- Comparing metric and customary units of measurement

CC:
2.MD.1
2.MD.2
2.MD.3
2.MD.4

TEKS:
2.9a
2.9b
2.9d
2.9e

MEASUREMENT

WEEK THREE

- Choosing measurement tools
- Finding length on a broken ruler
- Line plots
- Measurement word problems

CC:
2.MD.1
2.MD.2
2.MD.3
2.MD.4
2.MD.5
2.MD.9

TEKS:
2.9a
2.9b
2.9c
2.9d
2.9e

UNIT MATERIALS

CENTIMETERS
A centimeter is a metric unit of length.
Abbreviation: cm.
There are 30 centimeters on a ruler.

USING A RULER
We use a ruler to measure length.
Always measure from zero or the first line (not the edge of the ruler) when possible.

WE USE CENTIMETERS TO MEASURE SMALL THINGS.
Eraser = 6cm. Crayon = 8cm.

WHEN YOU HEAR "CENTIMETER" THINK ABOUT:
one base-10 unit
the width of your pinky finger

Many rulers have inches on one side and centimeters on the other.

This pencil is 6 inches long.
This pencil is 13 centimeters long.

Anchor charts

Binder cover

Lucky to Learn **MATH**
UNIT 7 **MEASUREMENT**
MEASURING MY WORLD

MATH CHAT EXPECTATIONS

- 1 BE RESPECTFUL**
Treat everyone in our classroom with respect- including yourself. All answers are valid and we all learn from mistakes.
- 2 THINKING TIME**
When a problem is shown, we won't shout about it yet. We will use silent thinking time to solve the problem on our own.
- 3 TRY YOUR BEST**
Use quiet thinking time to try your best and solve the problem. Do not give up! Our goal is to learn.
- 4 STRATEGIES**
When you think of a way to solve the problem, thumbs-up at your chest. Keep thinking of more ways and raise more fingers for more strategies.
- 5 LET'S CHAT!**
Once we have had plenty of silent thinking time, we will share our strategies with the class and just listen. All answers are shared and talked about before we move on.

MATH CHAT HAND SIGNALS

| | |
|--|--|
| | I am thinking. |
| | I have an answer. |
| | I have more than one strategy. |
| | I agree! |
| | I have a different answer or strategy. |

Math Chat posters

MEASUREMENT ASSESSMENT

Name: _____ Date: _____

How long is the pencil?

Draw a line that is 9 inches long on the ruler.

Use a ruler to measure the lines to the nearest centimeter.

Use a ruler to measure the lines to the nearest inch.

MEASUREMENT ASSESSMENT

Name: _____ Date: _____

How many inches are in a foot?
a. 20 inches
b. 20 inches
c. 12 inches

Which of these items is about 1 yard long?
a. baseball bat
b. book
c. rope

How many centimeters are in 1 meter?
a. 22 centimeters
b. 100 centimeters
c. 100 centimeters

The baby carrot is 3 inches long. The cucumber is 9 inches long. How much longer is the cucumber than the carrot?

Joe's driveway is 2 meters longer than Sam's. Sam's driveway is 7 meters long. How long is Joe's driveway?

How long is the marker?

Which measurement tool would be best to measure a soccer field? Why?
ruler measuring tape measuring tape

Unit assessments

EXPLORING ASIA
LESSON 7.12 BROKEN RULER

Teacher Directions: Print a set of task cards in color or black/white for each group. Students will work with a partner to look at each ruler and object. Students will determine if the measurement is correct or not. If it is not correct, then write the correct measurement.

3. The lotus flower is about 26 cm. wide

4. The soldier statue is 11 cm. tall.

Craftivities

Craftivities

measure
finding the size or amount of something

length
how long something is

height
how tall something is

width
how wide something is

metric
measurement like centimeters and meters

inch
any unit of length

ruler

estimate
an educated guess

Vocabulary cards

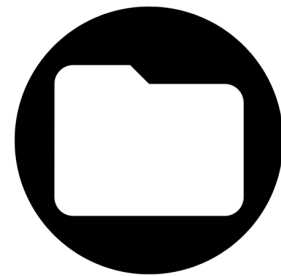
MATH UNIT ICONS

These icons are on each piece of the curriculum to help you stay organized and help students learn the routine!

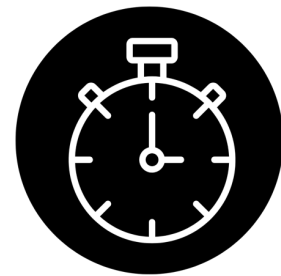
ICON KEY



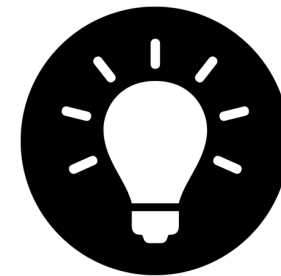
OBJECTIVE



MATERIALS



WARM UP



MINI LESSON



MATH CHAT



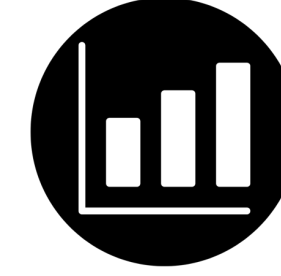
HANDS-ON
COLLABORATION



INDEPENDENT
PRACTICE



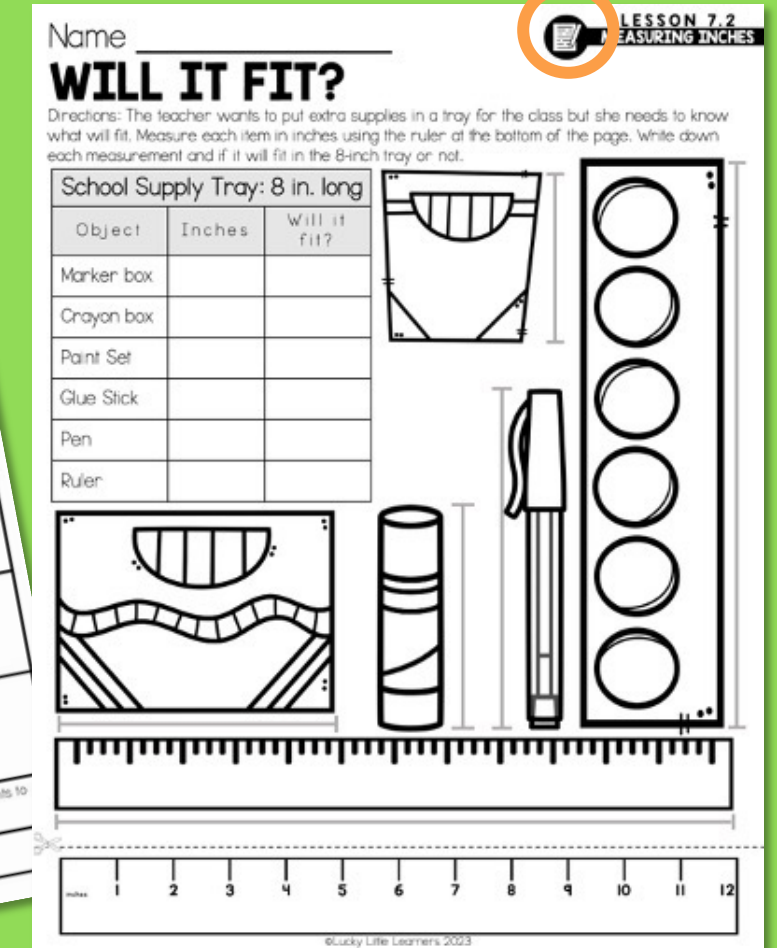
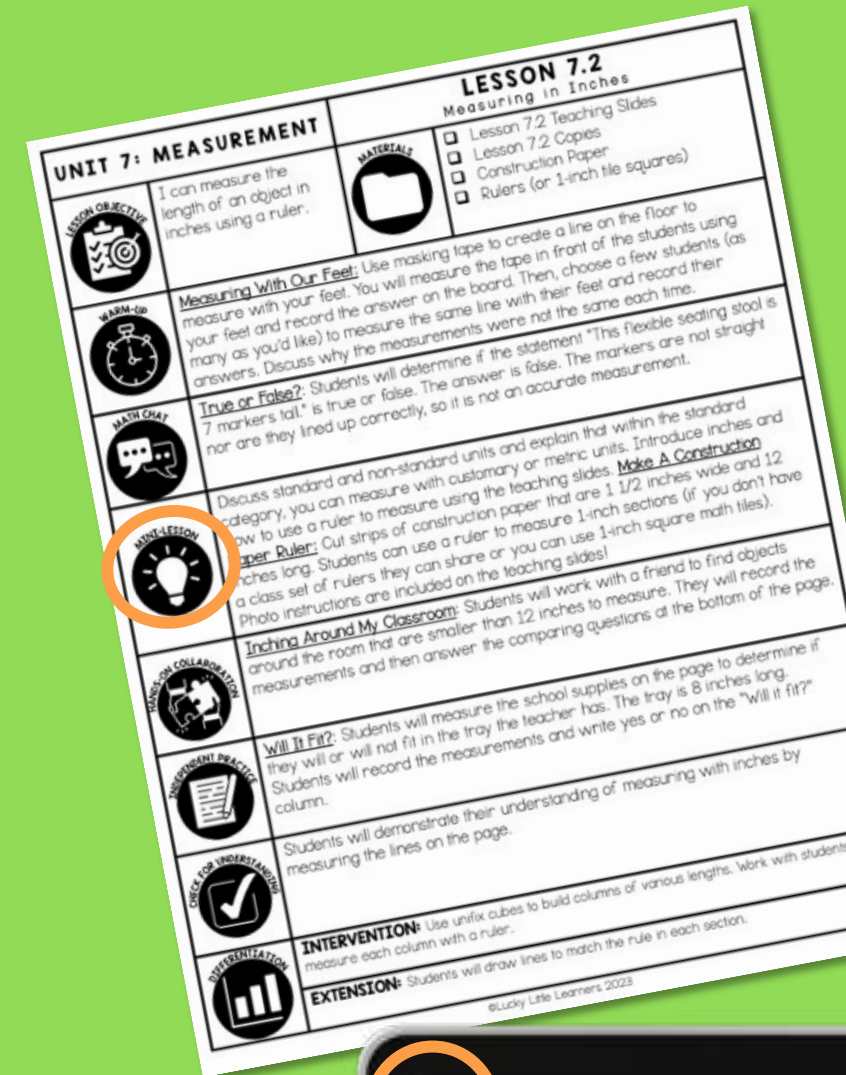
CHECK FOR
UNDERSTANDING



DIFFERENTIATION



BONUS



LESSON PLANS

Clear lesson objective

List of materials

| MEASUREMENT | | LESSON 7.3 Estimate and Measure | |
|-------------|--|------------------------------------|--|
| | I can estimate and measure the length of an object in inches using a ruler. | | <input type="checkbox"/> Lesson 7.3 Teaching Slides <input type="checkbox"/> Lesson 7.3 Copies <input type="checkbox"/> Yarn <input type="checkbox"/> Rulers <input type="checkbox"/> Construction paper |
| | Yarn Order: Put students into small groups (as many groups as you'd like). Each group needs 5 yarn strings of different lengths (i.e. each group gets a string that is 2in., 3in., 4in., 5in. and 6in.). Students will work together in their groups to first put the strings in order from shortest to longest. Second, students will estimate the lengths of each string and be able to share their thinking. | | |
| | Word Problem: Students will read and answer the word problem, "The school has a banner that is 34 inches long. The board they want to hang it on is 42 inches long. How many more inches does the banner need to be to cover the whole board?". The answer is 8 inches. | | |
| | Introduce estimating length to students. Review measuring with inches. School Staff Yearbook Photos: Work as a whole group to estimate the size of each staff member's photo (on the recording sheet only, the images on the teaching slides are not what we are measuring). Then, have students measure each photograph with a ruler. | | |
| | Estimate and Measure My School: Print the 3 pages of task cards in color or black/white. Cut them out and place them around the room. Students will work in pairs to walk around to each card and estimate the size of each object in inches. Then, students will use a ruler to find the actual measurements. | | |
| | Create A School: Students will measure each room on the sheet provided and write the answer on the Create A School half-sheet. Students can then cut the rooms out and glue them onto a piece of construction paper creating the school design of their dreams. If they have extra room, they can measure more rooms to add on. They can also color and add details! | | |
| | Students will demonstrate their understanding of estimating and measuring with inches by first estimating and then measuring the lines on the page. | | |
| | INTERVENTION: Work with students on estimating the length of each pencil. Students will then measure the pencils in inches. EXTENSION: Have students use a ruler to measure the length of a pencil that was rolled. Then, have them measure the length of a pencil that was not rolled. | | |

Teaching slides included for each part of the lesson

Math chat (number talk) in each lesson

Collaborative hands-on tasks

Quick assessments

Materials have matching icons for routine & easy organization

| UNIT 7: MEASUREMENT | | LESSON 7.9 Inch & Centimeter | |
|---------------------|---|---------------------------------|---|
| | Compare inch and centimeter. | | <input type="checkbox"/> Lesson 7.9 Teaching Slides <input type="checkbox"/> Lesson 7.9 copies <input type="checkbox"/> Rulers <input type="checkbox"/> Tablets or Computers |
| | Find a Friend & Add Centimeters: Copy the centimeters cards on colored cardstock & cut them out. Pass out one card to each student. Have students spread out around the room and begin walking calmly. Say "stop" and students will find a friend that they are closest to. They will sit and make a thumbs up. Repeat a few times, so students have the opportunity to try to make 1 meter. | | |
| | Think About It: Allow students a few second to look at the flags and their measurements. When most students have their thumb on their chest, have students share their answers and defend themselves. Discuss how these flags look to be about the same size but their numbers are different because their units of measurement are different. Answer: Yes the flags are the same size. Texas is measured in inches and California is measured in centimeters. | | |
| | Review inches and centimeters. Use the slides introduce measuring the same object in inches and centimeters. Use the slides to begin to compare measuring in inches and centimeters. State Bird Watching: Have students measure the birds to the nearest inch and centimeter. Remember these may not be exact, so students will need to chose the closest inch or centimeter. They will record their answers in the table at the bottom. Then use the slides to go over the answers together and check their work. The images on the slides will not be the same size as the worksheet. They are not to scale. The slides will only be used to fill in the measurement. | | |
| | Measuring Mammals: Print the 3 pages of task cards in color or black/white. Cut them out and place them around the room. Students will work with partners to walk around to each card and measure each mammal to the nearest inch & centimeter. Students will record their measurements on their recording sheets. | | |
| | Flower Problems: Students will read the clues and answer the questions about the state flowers. | | |
| | Students will demonstrate understanding of measuring in inches and centimeters by measuring 3 lines. Then they will answer the question comparing both units of measurement. | | |
| | INTERVENTION: Copy <u>Comparing Inches & Centimeters</u> for students to use in a small group. Review drawing lines with students in both inches and centimeters. Then compare the lines & units of measurement used. Discuss how centimeters are smaller in size so our numbers are larger, and inches are larger in size so our numbers are smaller. EXTENSION: Have students used tablets or computer to research a state. Students will complete the <u>State Report</u> and share information & measurements they found during research. | | |

Quick warm-up in each lesson

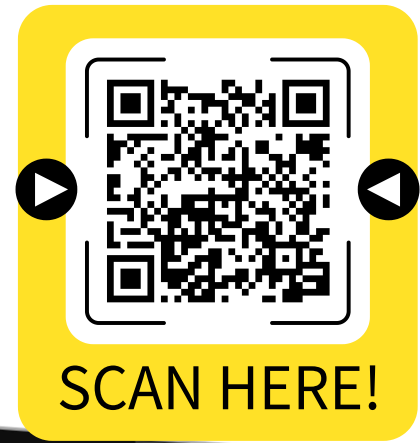
Skill-focused mini lesson

Independent practice

Differentiation options

Weekly Email FREEBIES!

Grab a cup of coffee and take a few minutes with **our weekly newsletter** created just for teachers like you.



About Lucky Little Learners



Angie Olson has many years of classroom experience teaching grades kindergarten, first, and second grade. She earned her master's degree in mathematics and has presented for a variety of conferences at the national, state, and local levels. Over the years, Angie has employed teachers to help with Lucky Little Learners. She is proud of her talented team who strives to support the teaching community with her. Lucky Little Learners has created over 25,000 resources that are available in the All Access membership. Lucky Little Learners is also a top seller on Teachers Pay Teachers.