

Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM/BETT Unit Plan Template

Unit Title: Measurement
Number of Lessons: 14
Time (in weeks): 4
Name: Tanya Blackall
Subject(s): Mathematics
Grade(s): 1

Rationale

Measurement is a foundational mathematical concept that allows students to make sense of the physical world by comparing, quantifying, and describing objects and spaces. In Grade 1, students begin by developing an understanding of measurable attributes such as length, height, and size through direct comparison and hands-on exploration.

This unit is designed to build conceptual understanding through the use of non-standard units before transitioning to standard metric measurement (centimetres). Through active, inquiry-based learning, students will explore fairness and accuracy in measurement, develop estimation skills, and learn to select appropriate tools for different tasks.

The unit emphasizes real-world connections, encouraging students to see measurement as a meaningful and practical skill. It also supports the development of communication, reasoning, and problem-solving skills, while fostering confidence and independence in young learners.

Overview:

This Grade 1 measurement unit introduces students to the concept of measuring and comparing objects through a progression of hands-on, developmentally appropriate experiences. Students begin by exploring and describing differences in length and height using comparative language such as longer, shorter, and taller. They then move into measuring with non-standard units, such as cube links and other classroom manipulatives, to build an understanding of how measurement works. Through these experiences, students develop an awareness of the importance of using consistent units and are introduced to the concept of fairness and accuracy in measurement. As the unit progresses, students are encouraged to estimate measurements and check their predictions, strengthening their number sense and reasoning skills. The unit then transitions into the use of standard metric units, specifically centimetres, where students learn to use rulers and measure objects with greater precision. Throughout the unit, students apply their learning in meaningful and engaging contexts, building confidence in their ability to measure, compare, and describe the world around them.

CORE COMPETENCIES

Communication	Thinking	Personal & Social
	Critical Thinking and Reflective Thinking <i>Analyzing and critiquing</i> <ul style="list-style-type: none"> Students learn to analyze and make judgments about a work, a position, a process, a performance, or another product or act. They reflect to consider purpose and 	Personal Awareness & Responsibility <i>Self-advocating</i> <ul style="list-style-type: none"> Students who are personally aware and responsible have a sense of self-worth and a growing confidence in a variety of situations. They value themselves, their ideas, and their

	perspectives, pinpoint evidence, use explicit or implicit criteria, make defensible judgments or assessments, and draw conclusions. Students have opportunities for analysis and critique through engagement in formal tasks, informal tasks, and ongoing activities.	accomplishments. They are able to express their needs and seek help when needed, find purpose and motivation, act on decisions, and advocate for themselves.
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BIG IDEAS

(multiple subject areas for integrated unit)

Subject Name: Mathematics 1	Subject Name: ELA 1	Subject Name: ADST 1
Objects and shapes have attributes that can be described, measured, and compared.	Curiosity and wonder lead us to new discoveries about ourselves and the world around us.	Skills can be developed through play.

LEARNING STANDARDS

Curricular Competencies	Content
Reasoning & analyzing <ul style="list-style-type: none"> Use reasoning to explore and make connections Estimate reasonably Develop mental math strategies and abilities to make sense of quantities Understanding & solving <ul style="list-style-type: none"> Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving 	<ul style="list-style-type: none"> Direct measurement with non-standard units (non-uniform and uniform)

Prerequisite Concepts and Skills:

<ul style="list-style-type: none"> Count reliably to 20 Compare objects visually (bigger/smaller) Use basic math language (more, less, same) Participate in group discussions Follow simple multi-step instructions
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Teacher Preparation Required:

Lesson #	Teacher Preparation Required (See Unit Plan Sample)
Lesson 1	<ul style="list-style-type: none"> Copy the worksheet "Draw to show things that are shorter and taller than you" Copy the worksheet "Answer the question by circling the correct picture" Turn on the projector Set-up the video: https://www.youtube.com/watch?v=5sEI3liFmEg Set-up the laptop

	<ul style="list-style-type: none"> • Set-up the magnifier
Lesson 2	<ul style="list-style-type: none"> • Copy the worksheet "Circle the biggest picture in each row" • Copy the worksheet "Answer the question by circling the correct picture" • Bring the book "Straws in Order" by Katie Kable • Turn on the projector • Set-up the laptop • Set-up the magnifier
Lesson 3	<ul style="list-style-type: none"> • Bring the book "A Treasure of Measures" by Mike Downs & Joy Hwang Ruiz • Gather tube links (or snap cubes) • Gather paper clips, blocks, or other manipulatives for simple measuring • Put manipulatives into small trays for each table (x5) • Worksheet: Measure and record (animal heights x6) • Worksheet: Which picture shows how to measure the man? • Set-up laptop • Turn on projector • Set-up magnifier
Lesson 4	<ul style="list-style-type: none"> • Copy the worksheet: Cut and paste shortest to tallest (tulips) • Copy the worksheet: Write 1, 2, 3 to order objects from longest to shortest • Set-up laptop • Turn on the projector • Set-up the magnifier • Draw 3 different length lines on the board for the review
Lesson 5	<ul style="list-style-type: none"> • Copy the worksheet: Write 1, 2, 3 to order objects from longest to shortest • Set-up laptop • Turn on the projector • Set-up the magnifier • Prime video: https://www.youtube.com/watch?v=eY-SPD7_IC4
Lesson 6	<ul style="list-style-type: none"> • Copy the worksheets: <ul style="list-style-type: none"> ◦ 4 pages x 6 items each: Non-standard measurement ◦ 1 page x 3 objects: measure using pennies • Gather and fill small baskets for each table with pennies • Pennies • Set-up the laptop • Turn on the projector • Set-up the magnifier
Lesson 7	<ul style="list-style-type: none"> • Copy the worksheets: Estimating and measuring a chair with popsicle sticks, paper clips, hands, and connecting tubes x 2 • Gather manipulatives: popsicle sticks, connecting tubes, paper clips, & markers • Gather and fill small baskets for manipulatives on each table • Set-up the laptop • Turn on the projector • Set-up the magnifier
Lesson 8	<ul style="list-style-type: none"> • Copy worksheets: <ul style="list-style-type: none"> ◦ Measure insects at a picnic with an ant ruler ◦ Measure with an inch-worm ruler ◦ How long is the item worksheets x2 in case for time • Set-up laptop • Turn on the projector • Set-up the magnifier
Lesson 9	<ul style="list-style-type: none"> • Add small linking/snap cubes (same size for all students) into table baskets

	<ul style="list-style-type: none"> • Set-up the laptop • Turn on the projector • Set-up the magnifier • Copy Exit tickets
Lesson 10	<ul style="list-style-type: none"> • Copy A–F rectangle grid (bar graph-style lengths) • Copy Goldilocks cut & paste ordering (smallest → biggest) • Copy Snake/block length sheet • Set-up magnifier • Set-up laptop • Turn on the projector
Lesson 11	<ul style="list-style-type: none"> • Copy the built-in cm ruler pages (3 items per page × 2 pages) • Gather an object to measure (i.e. whiteboard marker) • Gather the cm rulers to hand out • Set-up the laptop • Turn on the projector • Set-up the magnifier
Lesson 12	<ul style="list-style-type: none"> • Copy the Gardening non-standard worksheets • Copy the Inch worm ruler worksheet • Copy the Measurement worksheet (pencil, pen, spatula, whisk, spoon) • Gather the physical cm rulers to hand out • Set-up laptop • Turn on the projector • Set-up the magnifier • Prime the video: https://www.youtube.com/watch?v=2wUsdsae0ro&t=23s
Lesson 13	<ul style="list-style-type: none"> • Gather physical cm rulers to hand out • Copy Worksheet 1 (6 items) • Copy Worksheet 2 (6 items) • Set-up the laptop • Turn on the projector • Set-up the magnifier
Lesson 14	<ul style="list-style-type: none"> • Gather the physical cm rulers to hand out • Copy the Shoes (4 items) worksheet • Copy the Trains (5 items) worksheet • Set-up the magnifier • Turn on the projector • Set-up the laptop • Gather a shoe, toy train, & a small stuffie

Cross-Curricular Connections:

English Language Arts (ELA): Students use descriptive language to compare objects (i.e. longer, shorter, taller) and explain their thinking orally and in simple written form. They also follow multi-step instructions during measurement tasks and record their observations.

Arts Education: Students draw and represent objects they have measured, supporting visual communication and attention to proportion and detail.

Physical Health Education (PHE): Measurement concepts can be connected to movement by comparing distances (i.e. jumping or walking lengths), supporting spatial awareness and physical engagement.

Applied Design, Skills and Technologies (ADST): Students engage in hands-on problem-solving by selecting appropriate tools and materials for measuring tasks, building early design thinking and practical skills.

Aboriginal Connections/ First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experimental, and relational (focused on connectedness, on reciprocal relationships, and a sense of place): This unit is heavily designed to use manipulatives as a source of learning. The students using their hands and logic, explore the role of measurement and the different things that can be used to do that. Non-standard moving into standard measurement is scaffolded so that all learners can get a chance to use what they have been shown and then apply those skills to real-world applications.

Universal Design for Learning (UDL)

Multiple Means of Representation:

- Visual models, demonstrations, anchor charts
- Hands-on manipulatives

Multiple Means of Engagement:

- Choice in activities and materials
- Collaborative work

Multiple Means of Expression:

- Drawing, oral explanations, recording numbers
- Flexible, scaffolded worksheets and recording methods

Differentiated Instructions (DI)

Support:

- Pre-measured examples
- Partner support
- Reduced number of items

Extension:

- Challenge estimation tasks
- Comparing multiple objects
- Introducing simple addition of measurements

Adaptations:

- Extra time
- Verbal responses instead of written
- One-on-one guidance

Overview of Lessons:

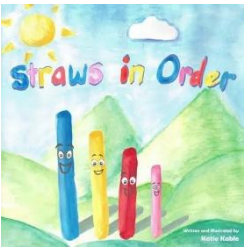
Lesson 1

Name & Time (Minutes Allotted):	April 13: Comparing Length – 30 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> • Use reasoning to explore and make connections Understanding & solving <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Compare two or more objects and describe them using vocabulary such as longer, shorter, taller, smaller, bigger. • Represent comparisons visually using a drawing.
Assessment:	Formative: <ul style="list-style-type: none"> • Observation of students working independently • Use of measurement vocabulary • Completion and accuracy of worksheets

	<p>Worksheet Check:</p> <ul style="list-style-type: none"> • Correct identification of taller/shorter objects • Accurate visual representation in drawing
Teaching Strategies:	<ul style="list-style-type: none"> • Teacher modeling / think-aloud • Independent hands-on practice • Visual cues and clear instructions • Gradual release: I do → students do independently
Materials:	<ul style="list-style-type: none"> • Worksheet “Draw to show things that are shorter and taller than you” • Worksheet “Answer the question by circling the correct picture” • Whiteboard • Dry erase markers • Projector • Laptop • Video: https://www.youtube.com/watch?v=5sEI3liFmEg • Magnifier • Pencils • Erasers • Crayons
Lesson Activities:	
Introduction/Hook:	<p>Hook / Engagement (5 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Show video: https://www.youtube.com/watch?v=5sEI3liFmEg • Ask students: “Watch how they figure out which things are longer and shorter.” • “What words did you hear in the video?” (taller, shorter, longer) • “How did they know which was longer or shorter?” <p>Hold up two classroom objects (i.e. pencil and book) & ask:</p> <ul style="list-style-type: none"> • “Which one is taller/shorter?” • “How do you know?” • “Today, we’ll be doing the same thing in our classroom!”
Body:	<p>Modeling (5 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Demonstrate comparing two objects properly. • Model completing the “circle the correct picture” worksheet. • Model setting up the 3-column drawing: Things shorter than me/me/taller than me. • Give clear verbal instructions for completing each worksheet independently. <p>Independent Practice (15 minutes) Students complete both worksheets independently:</p> <ul style="list-style-type: none"> • Circle the correct picture (taller/shorter) • Draw 3 columns for objects in the classroom or themselves <p>Teacher circulates quietly to support:</p> <ul style="list-style-type: none"> • Prompt vocabulary use • Check alignment and reasoning • Provide individual guidance as needed
Closure:	<p>Closure (5 minutes) The teacher will gather students & ask:</p>

	<ul style="list-style-type: none"> • “What did we learn about comparing objects?” • “How do we know which is taller or shorter?” • Quick formative check: Hold up two objects → students indicate which is taller/shorter with a show of hands
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Lesson 2

Name & Time (Minutes Allotted):	April 14: Ordering Objects by Length/Height - 25 minutes
Learning Standards: Curricular Competencies	<p>Reasoning & analyzing</p> <ul style="list-style-type: none"> • Use reasoning to explore and make connections <p>Understanding & solving</p> <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Order 3 objects correctly from shortest to tallest or longest to shortest • Use measurement vocabulary (longest, shortest, tallest, smallest) accurately • Represent ordering on a worksheet
Assessment:	<p>Formative:</p> <ul style="list-style-type: none"> • Observation during independent work • Use of vocabulary • Ability to identify shortest/longest <p>Worksheet Check:</p> <ul style="list-style-type: none"> • Correct ordering of objects (1–3) • Evidence of understanding sequence
Teaching Strategies:	<ul style="list-style-type: none"> • Read-aloud hook • Teacher modeling / think-aloud • Independent practice • Visual reinforcement
Materials:	<ul style="list-style-type: none"> • Worksheet “Circle the biggest picture in each row” • Worksheet “Answer the question by circling the correct picture” • Book “<i>Straws in Order</i>” by Katie Kable • Whiteboard • Dry erase markers • Projector • Laptop • Magnifier • Pencils • Erasers • Crayons 
Lesson Activities:	
Introduction/Hook:	<p>Hook: Read-Aloud (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Read <i>Straws in Order</i> by Katie Kable • Throughout the book, pause briefly to ask: <ul style="list-style-type: none"> ○ “Which straw is the shortest?” ○ “Which straw is the longest?” • After reading, clearly connect:

	<ul style="list-style-type: none"> ○ “Today we are going to do what the straws did—put things in order from shortest to longest.” ● “Today we are going to do what the straws did—put things in order from shortest to longest.”
Body:	<p>Modeling (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> ● Show 3 classroom objects (i.e. pencil, crayon, marker) ● Line them up at the same starting point in the magnifier ● Ask: <ul style="list-style-type: none"> ○ “Which is the shortest?” ○ “Which is the longest?” ● Model how to complete the worksheet: <ul style="list-style-type: none"> ○ 1 = shortest ○ 2 = middle ○ 3 = longest ● Emphasize: <i>We line objects up so it is fair.</i> <p>Independent Practice (10 minutes)</p> <p>Students complete:</p> <ul style="list-style-type: none"> ● Write 1, 2, 3 to order objects worksheet <p>Expectations:</p> <ul style="list-style-type: none"> ● Work independently ● Look carefully before choosing ● Use what they learned from the book and modeling <p>Teacher circulates:</p> <ul style="list-style-type: none"> ● Support students who need help identifying order ● Reinforce vocabulary quietly
Closure:	<p>Closure / Reflection (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> ● Gather students together once worksheets are handed in & ask: <ul style="list-style-type: none"> ○ “Which object was the longest?” ○ “How did you decide the order?” ○ Reinforce key idea: We line things up and compare carefully to put them in order. ● Quick formative check: hold up 2 different objects → students indicate which is taller/shorter with a raised hand

Lesson 3

Name & Time (Minutes Allotted):	April 15: Non-Standard Measurement with Cubes – 45 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> ● Estimate reasonably ● Use reasoning to explore and make connections Understanding & solving <ul style="list-style-type: none"> ● Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> ● Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> ● Measure objects using non-standard units (blocks) ● Count and record measurements accurately ● Compare objects using their measurements ● Make predictions before measuring
Assessment:	Formative:

	<ul style="list-style-type: none"> • Observation during measuring • Accuracy of counting • Participation in prediction and reflection <p>Worksheet Check:</p> <ul style="list-style-type: none"> • Correct numbers recorded for each animal • Evidence of understanding taller/shorter
Teaching Strategies:	<ul style="list-style-type: none"> • Hook with prediction • Teacher modeling / think-aloud • Independent worksheet • Hands-on measurement challenge • Reflection and discussion
Materials:	<ul style="list-style-type: none"> • Cube links (or snap cubes) • Paper clips, blocks, or other manipulatives for simple measuring • Worksheet: Measure and record (animal heights x6) • Worksheet: Which picture shows how to measure the man? • Book "A Treasure of Measures" by Mike Downs & Joy Hwang Ruiz • Pencils • Crayons • Erasers • Small trays to keep manipulatives organized • Laptop • Projector • Magnifier 
Lesson Activities:	
Introduction/Hook:	<p>Hook: Read-Aloud (10 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Read <i>A Treasure of Measures</i> • Ask: <ul style="list-style-type: none"> ○ "What kinds of things did they measure?" ○ "Why didn't they just guess?" ○ "<i>We measure to find out for sure.</i>"
Body:	<p>Prediction Challenge (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Show 2–3 classroom objects (i.e. pencil, glue stick, marker) • Ask: <ul style="list-style-type: none"> ○ "Which do you think is tallest?" ○ "Which is shortest?" • Students show answers with raising hands (no talking needed) • Measure one object using cubes • Ask: <ul style="list-style-type: none"> ○ "Was your prediction correct?" ○ "<i>Predictions are guesses—we measure to check!</i>" <p>Modeling (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Show the worksheet on the magnifier • Model measuring one animal: <ul style="list-style-type: none"> ○ Line cubes up beside the animal ○ Count carefully ○ Write the number • Emphasize:

	<ul style="list-style-type: none"> ○ Start at the same place ○ No gaps between cubes ○ Count slowly ● Vocabulary: taller, shorter, more blocks, fewer blocks <p>Independent Worksheet (15 minutes)</p> <ul style="list-style-type: none"> ● Students complete: <ul style="list-style-type: none"> ○ Measure the animal in height (6 animals) worksheet ● Expectations: <ul style="list-style-type: none"> ○ Work independently ○ Use cubes carefully ○ Record numbers correctly ● Teacher circulates: <ul style="list-style-type: none"> ○ Support counting and alignment ○ Prompt vocabulary quietly
Closure:	<p>Hands-On Measurement Challenge (5 minutes)</p> <p>As a class:</p> <ul style="list-style-type: none"> ● Students measure 2–3 classroom objects at their desk with paperclips: <ul style="list-style-type: none"> ○ Small whiteboard marker ○ Crayola marker ○ Glue stick ● They: <ul style="list-style-type: none"> ○ Think (predict) → measure → compare ● Optional prompt: <ul style="list-style-type: none"> ○ “Which object is the longest? Shortest?” <p>Closure / Reflection (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> ● Ask: <ul style="list-style-type: none"> ○ “Why do we measure instead of just guessing?” ○ “Which object was the tallest?” ○ “Did your prediction match?” ○ <i>“Measuring helps us know for sure.”</i>

Lesson 4

Name & Time (Minutes Allotted):	April 16: Ordering Objects by Length (Shortest to Tallest) – 20 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> ● Estimate reasonably ● Use reasoning to explore and make connections Understanding & solving <ul style="list-style-type: none"> ● Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> ● Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> ● Order 3–4 objects from shortest to tallest ● Use measurement vocabulary (shortest, tallest, longest) ● Represent ordering visually using a cut-and-paste activity
Assessment:	<p>Formative:</p> <ul style="list-style-type: none"> ● Observation during independent work ● Vocabulary usage <p>Worksheet Check:</p>

	<ul style="list-style-type: none"> • Correct order of tulips • Accurate numbering (1–3)
Teaching Strategies:	<ul style="list-style-type: none"> • Quick visual hook • Teacher modeling / think-aloud • Independent hands-on practice • Visual reinforcement
Materials:	<ul style="list-style-type: none"> • Worksheets: <ul style="list-style-type: none"> ○ Cut and paste shortest to tallest (tulips) ○ Write 1, 2, 3 to order objects from longest to shortest • Scissors • Glue sticks • Erasers • Pencils • Laptop • Projector • Magnifier
Lesson Activities:	
Introduction/Hook:	<p>Hook / Quick Review (2 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Draw 3 simple lines on the board (short, medium, long) • Ask: <ul style="list-style-type: none"> ○ “Which line is the shortest?” ○ “Which is the tallest/longest?” ○ “Yesterday we measured. Today we are going to use what we know to put things in order.”
Body:	<p>Explanations (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Show the tulip worksheet on the magnifier • Explain (as it is simple to do): <ul style="list-style-type: none"> ○ Looking carefully at each tulip ○ Deciding which is shortest → tallest ○ Placing them in order before gluing • Then explain the 1, 2, 3 worksheet: <ul style="list-style-type: none"> ○ 1 = shortest ○ 3 = longest • Emphasize looking carefully, comparing before choosing, & there is no measuring needed—use your eyes <p>Independent Practice (10 minutes)</p> <ul style="list-style-type: none"> • Students complete the worksheets: <ul style="list-style-type: none"> ○ Cut and paste tulips (shortest to tallest) ○ Write 1, 2, 3 ordering • Expectations: <ul style="list-style-type: none"> ○ Work independently ○ Cut and glue carefully ○ Check order before gluing • Teacher circulates: <ul style="list-style-type: none"> ○ Support students who struggle with ordering ○ Reinforce vocabulary quietly
Closure:	<p>Closure / Reflection (3 minutes)</p> <p>The teacher will ask:</p> <ul style="list-style-type: none"> • “How did you decide which was the shortest?”

	<ul style="list-style-type: none"> • “What did you look at to help you?” • “We compare carefully to put things in order.”
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Lesson 5

Name & Time (Minutes Allotted):	April 17: Ordering Objects (Longest to Shortest) – 20 minutes
Learning Standards: Curricular Competencies	<p>Reasoning & analyzing</p> <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections <p>Understanding & solving</p> <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Order objects from longest to shortest • Understand that order can change depending on direction • Use comparison vocabulary (longest, shortest, in-between) • Apply observation skills to determine order
Assessment:	<p>Formative:</p> <ul style="list-style-type: none"> • Observation of ordering direction • Vocabulary usage • Independent decision-making <p>Worksheet Check:</p> <ul style="list-style-type: none"> • Correct ordering from longest to shortest • Understanding of directional ordering
Teaching Strategies:	<ul style="list-style-type: none"> • Short video hook • Teacher modeling / think-aloud • Independent practice • Vocabulary reinforcement
Materials:	<ul style="list-style-type: none"> • Worksheets: Write 1, 2, 3 to order objects from longest to shortest & Non-standard Measurements x4 • Erasers • Pencils • Laptop • Projector • Magnifier • Video: https://www.youtube.com/watch?v=eY-SPD7_IC4
Lesson Activities:	
Introduction/Hook:	<p>Hook: Video (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Play the video at the start to show examples of comparing lengths: https://www.youtube.com/watch?v=eY-SPD7_IC4 • Ask students briefly: <ul style="list-style-type: none"> ○ “Which object was the longest?” ○ “How did you know?” ○ “Which was the shortest?” • “Now we are going to order our own objects from longest to shortest, just like in the video.”
Body:	<p>Modeling (3 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Show 3 classroom objects (i.e. pencil, crayon, marker) on the magnifier • Model identifying the longest first, then middle, then shortest.

	<ul style="list-style-type: none"> • Demonstrate marking numbers on the examples (in preparation for the worksheet without giving them the answers to it): <ul style="list-style-type: none"> ○ 1 = longest ○ 2 = middle ○ 3 = shortest • Explain the next part of the worksheet (using the blocks pictured beside the items, count the number of blocks long that the item is, & record the number: <ul style="list-style-type: none"> ○ <i>"The next exercise shown on the worksheet is where you will count the # of blocks long the item is & then write that number down on the line below. Let's do one together."</i> <p>Independent Practice (10 minutes)</p> <ul style="list-style-type: none"> • Students complete: <ul style="list-style-type: none"> ○ Write 1, 2, 3 to order objects from longest to shortest worksheet ○ Non-standard measurement worksheets x4 • Teacher circulates: <ul style="list-style-type: none"> ○ Support students reversing the order ○ Prompt use of vocabulary ○ Check alignment (no skipping or repeating numbers) • Expectations: <ul style="list-style-type: none"> ○ Work independently ○ Double-check their order before finishing
Closure:	<p>Closure / Reflection (2 minutes)</p> <p>The teacher will ask:</p> <ul style="list-style-type: none"> • "What does longest mean?" • "How is longest to shortest different from shortest to tallest?" • "Which number did you put for the longest object?" • <i>"The order changes depending on where we start. Today we started with the longest."</i>

Lesson 6

Name & Time (Minutes Allotted):	April 20: Measuring Objects with Non-Standard Units – 20 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections • Develop mental math strategies and abilities to make sense of quantities Understanding & solving <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Measure objects using non-standard units (cubes, pennies) • Record measurements accurately • Compare objects to determine which is longer or shorter
Assessment:	<ul style="list-style-type: none"> • Observation of measuring technique • Accuracy of recorded numbers on the worksheets
Teaching Strategies:	<ul style="list-style-type: none"> • Quick review of comparison • Teacher modeling / think-aloud

	<ul style="list-style-type: none"> • Independent hands-on practice • Vocabulary reinforcement (longer, shorter, same length, units)
Materials:	<ul style="list-style-type: none"> • Worksheet: Worksheets: <ul style="list-style-type: none"> ○ 4 pages × 6 items each: measure objects using cubes placed beside them ○ 1 page × 3 objects: measure using pennies • Small baskets for each table to hold the pennies • Pennies • Snap cubes • Pencils • Erasers • Laptop • Projector • Magnifier
Lesson Activities:	
Introduction/Hook:	<p>Quick Review (2 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Show 2–3 classroom objects (i.e. whiteboard eraser, whiteboard marker, & a pen) • Ask: “Which is longer? Which is shorter?” • <i>“Today we will measure using pennies to see exactly how long things are.”</i>
Body:	<p>Modeling (5 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> • Model measuring one object using pennies (i.e. marker): <ul style="list-style-type: none"> ○ Line pennies end-to-end ○ Count carefully ○ Record the number on the whiteboard • Emphasize: <ul style="list-style-type: none"> ○ Start at the same point ○ Pennies touch with no gaps ○ Count slowly and accurately
Closure:	<p>Independent Practice (13 minutes)</p> <ul style="list-style-type: none"> • Students complete the 5 worksheets: <ul style="list-style-type: none"> ○ 4 pages with cubes beside items (6 objects per page) ○ 1 page using pennies (3 objects) • Encourage: <ul style="list-style-type: none"> ○ Estimate first, then measure ○ Count carefully and record numbers ○ Compare measurements for longest/shortest • Teacher circulates to: <ul style="list-style-type: none"> ○ Support alignment and counting ○ Reinforce vocabulary: longer, shorter, same length

Lesson 7

Name & Time (Minutes Allotted):	April 21: Measuring Objects with Non-Standard Units – Popsicle Sticks, Hands, and Tubes – 20 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections

	<ul style="list-style-type: none"> Develop mental math strategies and abilities to make sense of quantities <p>Understanding & solving</p> <ul style="list-style-type: none"> Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> Estimate lengths of objects using popsicle sticks, hands, or connecting tubes Measure accurately using non-standard units Compare measurements and determine which objects are longer or shorter
Assessment:	<ul style="list-style-type: none"> Observation of estimating and measuring Accuracy of recorded measurements
Teaching Strategies:	<ul style="list-style-type: none"> Quick review of estimating and measuring Teacher modeling / think-aloud Independent hands-on practice Vocabulary reinforcement: estimate, longer, shorter, units
Materials:	<ul style="list-style-type: none"> Worksheets: Estimating and measuring a chair with popsicle sticks, hands, paper clips, and connecting tubes Manipulatives: popsicle sticks, connecting tubes, paper clips, & markers (use as unit of measurement) Small baskets for manipulatives on each table Pencils Erasers Laptop Projector Magnifier
Lesson Activities:	
Introduction/Hook:	<p>Quick Review (2 minutes)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> Display 2 classroom objects (i.e. marker & a crayon) on the magnifier Ask: <ul style="list-style-type: none"> "Which object do you think is the longest?" "How could we measure it?" <i>"Today we will estimate first, then measure using paper clips, popsicle sticks, hands, markers, and cubes."</i>
Body:	<p>Modeling (4 minutes)</p> <ul style="list-style-type: none"> Model measuring one object with paper clips: <ul style="list-style-type: none"> Make a guess first (estimate) Line up paper clips from one end to the other Count carefully Record number on whiteboard Repeat quickly connecting tubes for a second object. Emphasize: <ul style="list-style-type: none"> Units must touch each other (no gaps) Count slowly and carefully Compare estimated vs. actual measurement Vocabulary: estimate, longer, shorter, units
Closure:	Independent Practice (14 minutes)

	<ul style="list-style-type: none"> • Students complete worksheet measuring with popsicle sticks, hands, and tubes • Encourage: <ul style="list-style-type: none"> ○ Estimate first, measure second ○ Record numbers carefully ○ Compare results to identify longest and shortest • Teacher circulates to: <ul style="list-style-type: none"> ○ Support alignment and counting ○ Reinforce vocabulary: estimate, longer, shorter
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Lesson 8

Name & Time (Minutes Allotted):	April 22: Measuring Objects Using Inch-Worm and Ant Rulers – 45 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections • Develop mental math strategies and abilities to make sense of quantities Understanding & solving <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Estimate the length of objects in non-standard units • Measure using inch-worm rulers and ant rulers • Record measurements accurately • Compare measurements to determine which objects are longest or shortest
Assessment:	<ul style="list-style-type: none"> • Observation of estimating and measuring • Accuracy of recorded measurements on worksheets • Vocabulary usage
Teaching Strategies:	<ul style="list-style-type: none"> • Quick review of estimating and measuring • Teacher modeling / think-aloud • Hands-on independent practice • Reflection and discussion • Vocabulary reinforcement: estimate, longer, shorter, measure, ruler
Materials:	<ul style="list-style-type: none"> • Worksheets: <ul style="list-style-type: none"> ○ Measure insects at a picnic with an ant ruler ○ Measure with an inch-worm ruler • Pencils • Non-standard rulers: Inchworm & ant rulers • Laptop • Projector • Magnifier • Erasers
Lesson Activities:	
Introduction/Hook:	Hook / Engagement (5 minutes) The teacher will: <ul style="list-style-type: none"> • Show students the rulers on the worksheets (inchworm and ant) via the magnifier

	<ul style="list-style-type: none"> • Show a classroom item that you will measure (i.e. marker & a whiteboard eraser) • Ask: <i>"Which item do you think is longest? Shortest? How many ants do you think the eraser is?"</i> • Let students estimate aloud before measuring. • <i>"Today we'll measure items using these rulers to see the exact lengths in 'worms' and 'ants.'"</i>
Body:	<p>Modeling (10 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Choose one picnic item on the ant ruler worksheet • Estimate the length first: <i>"How many ants long do you think it is?"</i> • Measure carefully using the ant ruler printed on the worksheet. • Record the measurement on the whiteboard • Repeat with a second item to show accuracy and recording using the ant ruler • Emphasize: <ul style="list-style-type: none"> ○ Units must touch with no gaps ○ Count carefully ○ Compare estimated vs. actual measurement • Vocabulary: estimate, measure, ruler, longer, shorter <p>Independent Practice (25 minutes)</p> <ul style="list-style-type: none"> • Students complete the worksheets: <ul style="list-style-type: none"> ○ Measure insects with ant ruler ○ Measure picnic items with inch-worm ruler • Encourage: <ul style="list-style-type: none"> ○ Estimate first ○ Measure carefully ○ Record numbers accurately ○ Identify the longest and shortest items • Teacher circulates to: <ul style="list-style-type: none"> ○ Support alignment and counting ○ Reinforce vocabulary • Extension for early finishers: <ul style="list-style-type: none"> ○ Compare 2 items and write a sentence (i.e. "The ice cream is longer than the cookie.")
Closure:	<p>Closure / Reflection (5 minutes) The teacher will:</p> <ul style="list-style-type: none"> • Ask: <ul style="list-style-type: none"> ○ "Which item was longer than you thought?" ○ "Which was shorter?" ○ "How did using a ruler help us check our estimates?" ○ <i>"Non-standard rulers on the worksheets help us measure accurately and see the difference between our estimate and the actual length."</i>

Lesson 9

Name & Time (Minutes Allotted):	April 23: Measuring with Non-Standard Tools (Built-In Rulers)– 20 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections

	<ul style="list-style-type: none"> Develop mental math strategies and abilities to make sense of quantities <p>Understanding & solving</p> <ul style="list-style-type: none"> Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> Students will measure using a new non-standard unit. Students will understand that units must be equal and lined up carefully
Assessment:	<ul style="list-style-type: none"> Observation: Teacher watches for correct cube use, counting, and no gaps/overlaps Exit ticket (product): Students completed measurements (on worksheet) Teacher notes who are meeting the skills during the activities
Teaching Strategies:	<ul style="list-style-type: none"> Modelling Gradual release (I Do → We Do → You Do) Hands-on learning Mathematical language prompts: Encourage students to say “___ cubes long” when sharing their answers. Teacher circulation
Materials:	<ul style="list-style-type: none"> Small linking/snap cubes (same size for all students) Pencils Erasers Laptop Projector Magnifier Copy Exit ticket
Lesson Activities:	
Introduction/Hook:	<p>Hook (3 minutes)</p> <p>The teacher will quickly show:</p> <ul style="list-style-type: none"> A row of cubes lined up properly A row with gaps/overlaps <p>Ask:</p> <ul style="list-style-type: none"> “Which one is correct?” “Why?” <ul style="list-style-type: none"> Do a quick review of accuracy expectations (make sure the end is lined up to the “0” etc.)
Body:	<p>Mini Lesson (5 minutes)</p> <p>Model measuring a pencil:</p> <ul style="list-style-type: none"> Snap cubes together in a straight line Line them up with the object No gaps, no overlaps Think aloud: “I am using cubes that are all the same size... I am counting each one... 1, 2, 3...” “This pencil is ___ cubes long.” <p>Emphasize:</p> <ul style="list-style-type: none"> Make sure that you are using the same size units Make sure that you are being careful counting your units

	<p>Guided Practice (10 minutes)</p> <p>Students:</p> <ul style="list-style-type: none"> • Get 2 sets of cubes (10x2) • Measure ONE object (a paper clip) <p>Steps:</p> <ol style="list-style-type: none"> 1. Snap cubes together 2. Line up with the paper clip 3. Count the squares long that the paper clip is 4. Say the length, "The paper clip is ___ cubes long." <p>Students will then try a measurement of a Hot Wheels car on their own as the teacher circulates:</p> <ul style="list-style-type: none"> • Fix spacing of the snap cubes • Support counting • Watch for students starting beside the paper clip instead of lining up at the end of the paper clip
Closure:	<p>Closure (2 minutes)</p> <p>The teacher will ask:</p> <ul style="list-style-type: none"> • "What helped you measure correctly today?" • "Using equal cubes and lining them up carefully helps us measure fairly."

Lesson 10

Name & Time (Minutes Allotted):	April 24: Interpreting & Ordering Data – 20 minutes
Learning Standards: Curricular Competencies	<p>Reasoning & analyzing</p> <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections • Develop mental math strategies and abilities to make sense of quantities <p>Understanding & solving</p> <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Students will interpret measured lengths. • Students will order objects from smallest to biggest
Assessment:	<ul style="list-style-type: none"> • Observation of ordering accuracy • Student worksheets completion • Oral explanations of comparisons
Teaching Strategies:	<ul style="list-style-type: none"> • Visual comparison (no tools) • Guided reasoning questions • Modelling ordering first • Math talk: "smallest / biggest / longest" • Scaffolded cut-and-paste support
Materials:	<ul style="list-style-type: none"> • A–F rectangle grid (bar graph-style lengths) • Goldilocks cut & paste ordering (smallest → biggest) • Snake/block length sheet • Magnifier • Laptop • Projector • Pencils

	<ul style="list-style-type: none"> • Erasers • Glue sticks • Scissors
Lesson Activities:	
Introduction/Hook:	Hook (3 min) Show 3 objects (on worksheet A-F covering the bottom portion) The teacher will ask: <ul style="list-style-type: none"> • <i>"Which is shortest? Which is longest?"</i> No measuring—just reasoning
Body:	Modeling Activities (5 min) Model: <ul style="list-style-type: none"> • Show rectangle A–F grid • Point out different lengths • Explain: "We don't always need to measure—we can use what we see." Model ordering: <ul style="list-style-type: none"> • Goldilocks example: smallest → biggest • Do 1st one together Model measuring (snake worksheet) <ul style="list-style-type: none"> • Show how to read the measurements for a snake Independent Practice (10 min) Students complete: <ul style="list-style-type: none"> • A–F grid questions (read/interpret lengths) • Snake measuring • If they complete the other 2 worksheets, they can do the cut & paste ordering (Goldilocks 3 bears theme) that is copied separately due to the cutting needed for it
Closure:	Closure (2 min) The teacher will ask: <ul style="list-style-type: none"> • <i>"How do we know which is longest without measuring?"</i> • Reinforce: <i>"We can use numbers, grids, and comparison."</i>

Lesson 11

Name & Time (Minutes Allotted):	April 28: Measurement: Visual Standard Units – 20 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections • Develop mental math strategies and abilities to make sense of quantities Understanding & solving <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Students will measure using a printed (built-in) ruler scale. • Students will read centimetre values
Assessment:	<ul style="list-style-type: none"> • Worksheet completions • Observation of alignment accuracy • Oral explanation of measurement reading
Teaching Strategies:	<ul style="list-style-type: none"> • Modelling

	<ul style="list-style-type: none"> • Guided practice with prompts • Visual alignment support • Teacher circulation and correction • Think-alouds for reading cm
Materials:	<ul style="list-style-type: none"> • Built-in cm ruler pages (3 items per page × 2 pages) • An object to measure (i.e. white board marker) • Cm ruler • Laptop • Projector • Magnifier • Pencils • Erasers
Lesson Activities:	
Introduction/Hook:	Hook (3 min) The teacher will show a standard cm ruler & ask: <ul style="list-style-type: none"> • <i>"What do you notice about this scale?"</i>
Body:	Mini Lesson (5 min) The teacher will model: <ul style="list-style-type: none"> • Line up an object with printed ruler • Show reading cm value • Think aloud: <i>"I start at zero... I stop here... it is __ cm."</i> • Show the 1st page of the 1st worksheet • <i>"Today, you are given a handy ruler beside the object that you are going to measure. As you can see, the ruler is already positioned against the objects at the zero so you don't need to move it. This is the correct way to use a ruler – we have to 1st line up the object that we want to measure at the zero line on the ruler. If we don't do that, what do you think will happen?"</i> • <i>"Let's do the 1st one together. My ruler is lined up correctly on the zero at the end of the carrot so I just have to look at the numbers and count. 1, 2, 3,..... 12. The carrot is 12 cm long! We then write "12" in the space below the item. The worksheet has already given you the units which are cm."</i> • <i>"You're turn to try. There are 2 sheets so I want you to try to complete those."</i> Guided Practice (10 min) Students complete: <ul style="list-style-type: none"> • 3 items per page (2 pages total) • Focus: alignment + reading cm
Closure:	Closure (2 min) The teacher will ask: <ul style="list-style-type: none"> • <i>"What helps us measure correctly?"</i> • Reinforce: <i>"We start at 0 + read carefully."</i>

Lesson 12


Name & Time (Minutes Allotted):	April 29: Comparing Measurement Tools (Non-Standard, Worm Ruler, and cm Ruler Practice) – 45 minutes
Learning Standards: Curricular Competencies	Reasoning & analyzing <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections

	<ul style="list-style-type: none"> Develop mental math strategies and abilities to make sense of quantities <p>Understanding & solving</p> <ul style="list-style-type: none"> Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> Students will measure using non-standard units. Students will measure using an inch worm ruler. Students will begin using a cm ruler with support. Students will compare measurements from different tools.
Assessment:	<ul style="list-style-type: none"> Observation during all 3 measurement methods Worksheet completion (non-standard + worm ruler + cm section) Oral responses after video and closure discussion <p>Teacher checklist:</p> <ul style="list-style-type: none"> Attempts correct alignment Uses appropriate tool Begins reading cm with support Understands measurement differences
Teaching Strategies:	<ul style="list-style-type: none"> Video-based hook to build engagement and visual understanding Modelling of 3 measurement methods Step-by-step scaffold (non-standard → worm ruler → cm ruler) Guided questioning during video and modelling Hands-on measurement with structured worksheet progression Teacher-supported cm reading (not independent yet) Partner support during guided tasks
Materials:	<ul style="list-style-type: none"> Gardening non-standard worksheets Inch worm ruler worksheet Measurement worksheet (pencil, pen, spatula, whisk, spoon) Physical cm rulers Pencils Erasers Laptop Projector Magnifier
Lesson Activities:	
Introduction/Hook:	<p>Hook (11 min)</p> <p>The teacher will:</p> <ul style="list-style-type: none"> Play the video: https://www.youtube.com/watch?v=2wUsdsae0ro&t=23s <p>After-video quick talk</p> <ul style="list-style-type: none"> "What did you notice about measuring?" "What tools did they use?" "Why do we start at zero?"
Body:	<p>Mini Lesson (8 minutes)</p> <p>The teacher will model ONE item through all 3 methods:</p> <p>Step 1: Non-standard (review)</p> <ul style="list-style-type: none"> quick cube/worm measurement <p>Step 2: Inch worm ruler</p>

	<ul style="list-style-type: none"> • measure same item • count together <p>Step 3: cm ruler (teacher guided)</p> <ul style="list-style-type: none"> • show alignment at 0 • read together slowly <p>Ask:</p> <ul style="list-style-type: none"> • <i>"What do you notice about the numbers?"</i> <p>Guided Practice with Worksheets (22 minutes) Students complete:</p> <p>Section A:</p> <ul style="list-style-type: none"> • Gardening worksheet (non-standard review) <p>Section B:</p> <ul style="list-style-type: none"> • Inch worm ruler measurements <p>Measurement Worksheet Students measure:</p> <ul style="list-style-type: none"> • pencil • pen • spatula • whisk • spoon <p>The teacher circulates</p> <p>Extension / Thinking Task The teacher will ask:</p> <ul style="list-style-type: none"> • <i>"Which tool was easiest to use?"</i> • <i>"Did all tools give the same number?"</i> <p>Optional:</p> <ul style="list-style-type: none"> • compare 1–2 objects quickly
Closure:	<p>Closure (2–3 minutes) The teacher will ask:</p> <ul style="list-style-type: none"> • <i>"What did we learn about measuring today?"</i> • Reinforce: <i>"Different tools can measure the same object in different ways."</i>

Lesson 13

Name & Time (Minutes Allotted):	April 30: Measuring with a Physical Ruler (cm) – 20 minutes
Learning Standards: Curricular Competencies	<p>Reasoning & analyzing</p> <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections • Develop mental math strategies and abilities to make sense of quantities <p>Understanding & solving</p> <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Students will use a physical ruler to measure objects in centimetres • Students will learn to start at 0 and align objects correctly • Students will record measurements in cm

Assessment:	<ul style="list-style-type: none"> • Observation of ruler alignment and accuracy • Worksheets completion (12 items total) • Oral responses during hook/closure • Teacher checklist: <ul style="list-style-type: none"> ○ Starts at 0 ○ Uses ruler correctly ○ Reads cm accurately ○ Records measurements
Teaching Strategies:	<ul style="list-style-type: none"> • Modelling (one example only) • Quick guided practice for confirmation • High-volume independent practice (12 items total) • Teacher circulation • Repeated emphasis on alignment at 0
Materials:	<ul style="list-style-type: none"> • Physical cm rulers • Worksheet 1 (6 items) • Worksheet 2 (6 items) • Pencils • Erasers • Laptop • Projector • Magnifier
Lesson Activities:	
Introduction/Hook:	<p>Hook (3 minutes) </p> <p>The teacher will show a ruler + object (pencil or spoon) on the magnifier & ask:</p> <ul style="list-style-type: none"> • <i>"Where do we always start measuring?"</i> • Reinforce: <i>"We always start at 0."</i>
Body:	<p>Modeling (4 minutes)</p> <p>The teacher will model one example:</p> <ul style="list-style-type: none"> • Place ruler at 0 • Align object • Read cm • Record answer <p>Think aloud:</p> <ul style="list-style-type: none"> • <i>"I must line it up exactly at zero or it won't be correct."</i> <p>Guided Practice (3 minutes)</p> <p>The teacher will do one quick class example:</p> <ul style="list-style-type: none"> • Students help identify correct placement • Say answer together <p>Independent Practice (10 minutes)</p> <p>Students complete:</p> <ul style="list-style-type: none"> • Sheet 1 (6 items) <p>Then immediately move to:</p> <ul style="list-style-type: none"> • Sheet 2 (6 items) <p>Teacher circulates:</p> <ul style="list-style-type: none"> • Checks alignment at 0 • Supports reading cm • Helps with recording if needed • Emphasis: Accuracy over speed
Closure:	Closure (2 minutes)

	<p>The teacher will ask:</p> <ul style="list-style-type: none"> • “What is the most important rule when measuring with a ruler?” • Reinforce: Start at 0 & measure carefully
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Lesson 14

Name & Time (Minutes Allotted):	May 1: Measurement Review & Application – 20 minutes
Learning Standards: Curricular Competencies	<p>Reasoning & analyzing</p> <ul style="list-style-type: none"> • Estimate reasonably • Use reasoning to explore and make connections • Develop mental math strategies and abilities to make sense of quantities <p>Understanding & solving</p> <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
Learning Standards: Content	<ul style="list-style-type: none"> • Direct measurement with non-standard units (non-uniform and uniform)
Instructional Objectives	<ul style="list-style-type: none"> • Students will independently measure objects using a cm ruler • Students will apply measurement skills across different contexts • Students will record and interpret measurements
Assessment:	<ul style="list-style-type: none"> •
Teaching Strategies:	<ul style="list-style-type: none"> • Minimal instruction (should be review only) • Independent application of skills • Mixed-context problem solving • Teacher circulation for support + assessment • Repetition of key anchor skills (i.e. start at 0) • Real-world context (using shoes, toy trains, toy cars, etc.)
Materials:	<ul style="list-style-type: none"> • Physical cm rulers • Worksheets: <ul style="list-style-type: none"> ◦ Shoes (4 items) ◦ Trains (5 items) • Pencils • Erasers • Magnifier • Projector • Laptop • Shoe • Toy train • Small stuffie
Lesson Activities:	
Introduction/Hook:	<p>Hook (2 minutes)</p> <p>The teacher will show a mix of items (shoe, toy train, small stuffie) & ask:</p> <ul style="list-style-type: none"> • “How would we measure these with a ruler?” • Reinforce: Start at 0 & measure carefully
Body:	<p>Quick Reminder Model (3 minutes)</p> <p>The teacher will do ONE fast example only:</p> <ul style="list-style-type: none"> • line up ruler at 0 • measure • record cm <p>Think aloud:</p> <ul style="list-style-type: none"> • “I make sure it starts at zero every time.”

	<p>Independent Practice (13 minutes) Students will complete the 3 worksheets: Worksheet 1:</p> <ul style="list-style-type: none"> • Shoe lengths (4 items) <p>Worksheet 2:</p> <ul style="list-style-type: none"> • Train lengths (5 items) <p>Worksheet 3:</p> <ul style="list-style-type: none"> • Mixed objects (6 items) <p>The teacher will circulate and:</p> <ul style="list-style-type: none"> • Check measuring alignment • Support reading cm • Ensure recording accuracy
<p>Closure:</p>	<p>Closure (2–3 minutes) The teacher will ask:</p> <ul style="list-style-type: none"> • <i>“What have we learned about measuring this unit?”</i> <p>Expected responses:</p> <ul style="list-style-type: none"> • Use a ruler or other measuring item • We always start at 0 or the end of our measuring item • We need to measure carefully • Reinforce: <i>“We are now measurement experts!”</i>

Resources:

<p>Lesson 1: Video https://www.youtube.com/watch?v=5sEI3liFmEg Lesson 2: Book “Straws in Order” by Katie Kable Lesson 3: Book “A Treasure of Measures” by Mike Downs & Joy Hwang Ruiz Lesson 5: Video https://www.youtube.com/watch?v=eY-SPD7_IC4 Lesson 12: Video https://www.youtube.com/watch?v=2wUsdsae0ro&t=23s</p>
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Extensions to Unit:

<p>1) “Which Tool Would You Choose?” Challenge Give students scenarios:</p> <ul style="list-style-type: none"> • measuring a pencil • measuring a classroom door • measuring a book <p>2) Measurement Detective Activity Students go on a classroom “hunt”:</p> <ul style="list-style-type: none"> • find 3 objects longer than a pencil • find 3 objects shorter than a shoe <p>3) Order the Classroom (Real Objects) Give groups 4–5 real items:</p> <ul style="list-style-type: none"> • arrange from shortest → longest • then verify using cubes or ruler
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Reflections and Revisions

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