Curriculum Sample Template

Max. 8 Pages

Grade Level	1st Grade	**Content Area**	Math
Course Title (grades 9-12 Only)	Mathematics 1		
Expected Prior Knowledge *The knowledge/skills mastered earlier in the year foundational to the mastery of the required Standard in the current sample.*	• Students understand how to work in precision partnerships effectively. • Students know how to use their math journals effectively. • Students are familiar with, and have used, the 8 CCSS mathematical practices.		
Alignment to Program of Instruction *Briefly outline methods of instruction found in this sequence of lessons that align to the Program of Instruction described in A.3.*	This unit is built on the framework of the SIOP Model and incorporates all 8 of the SIOP Model components. Sentence framing and precision partnering are instructional strategies which promote the use and mastery of academic language. Instructional technology is incorporated by teacher and students. The core curriculum is implemented with fidelity. All teachers also actively engage in rigorous questioning that uses the answer as the starting point, requiring students to use evidence and reasoning to justify how they found their answers and why they believe they are correct. A wide variety of algorithms and methods are honored, and process is highly valued. All math instruction grades K-8 explicitly teaches, models, and honors the 8 CCSS mathematical practices: 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning		
Standard Number and Description *List the Number* and the full description for the Required Standard or Science Performance Objective listed in section A.6.*	Domain: Measurement & Data Cluster: Measure lengths indirectly and by iterating length units Standard: #2: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.		

Materials/Resources Needed	• Student homework folders • Group buckets containing various items of varying size (ex. book, pencil, sticky note, glue stick, etc.) • Linking cubes • Math journals

* ***Standard Number****: For English Language Arts (Reading and Writing), use Grade, Strand, Standard (e.g., 3.RI.2). For K-8 Math, use Grade, Domain, Standard (e.g., 6.EE.7). For HS Math, use Conceptual Category-Domain, Standard (e.g., A-REI.6). For Science, use Grade, Strand, Concept, PO (e.g., 4.1.3.1).*

Lesson (add as needed)	**Instructional Strategies**	**Student Activities**
1	1. Teacher will tell students that they need to figure out how big their classroom is so that they can get a new rug. Teacher will ask students how they could figure out how big the room is. 2. Teacher will suggest that they could measure with his/her feet and begins to walk across the room taking normal steps while students count how many steps it takes. The teacher will record the number of steps on the board and tell students that as good mathematicians they need to make sure that they have measured correctly. Teacher will select a volunteer to also walk across the room taking normal steps while the rest of the class count how many steps it takes. Teacher will record this new number on the board and ask students to discuss with a partner why they got two different numbers and ask for student reasoning. 3. Teacher will suggest that they try to measure again using their feet but this time without leaving any gaps and being very careful to walk toe-to-toe to get an accurate measurement. Teacher will measure the classroom using his/her feet and record the number on the board. Teacher will ask students to discuss with a partner if they think that they will get the same answer if the same student volunteer walks the room again in the same manner without leaving any space in between their feet. 4. Teacher will ask students if they can think of a better way to measure than using their feet and to explain why. Teacher will record student answers and will let the class know that	1. Students will volunteer ideas for how they could determine the size of their classroom. 2. Students will count the number of steps that the teacher takes to walk across the room. Students will count the number of steps that the student takes to walk across the room. Students will brainstorm with a partner why they got two different numbers when measuring the classroom. Students will volunteer what they discussed as the reasoning for the different measurements. 3. Students will count the number of teacher feet that are needed to measure the floor of the classroom. Students will discuss with a partner whether they will get the same answer when the student walks toe-to-toe and why. Students will volunteer to share their ideas with the class. 4. Students will brainstorm with their partner alternative objects that could be used to get a more accurate measurement and will share with the class.

	they will be using one of those methods to measure the room the next day.	
2	1. Teacher will brainstorm with the class a list of criteria that need to be met in order to get an accurate measurement (i.e. same-size length units, no gaps/overlaps). Teacher will ask class to remember some of their ideas of different objects that could be used to measure the room from day one of the unit. 2. Teacher will tell students that they will be using their homework folders to measure the size of the classroom. Teacher will call students one at a time to come add their folder to the line of folders and count together.	1. Students will brainstorm a list of criteria that need to be met in order to get an accurate measurement. Students will share the ideas of objects to used to measure that they can recall from day one of the unit. 2. Students will take turns placing their homework folders in a line across the room and count together as a class.
3	1. Teacher will ask students to discuss with a partner what they have been learning about measurement in this unit. 2. Teacher will review the class-created list of criteria necessary to get an accurate measurement. 3. Teacher will inform students that they will break into groups where they will work together to measure various items that they will find in their bucket using linking cubes and record their findings in the math journals. 4. Teacher will ask students to share their findings with the class. If there are any discrepancies in student results the teacher will lead the class through an investigation to determine the cause reminding students to remember the list that they created to remind them of how to get an accurate measurement.	1. Students will talk with a partner about what they have been learning about measurements and volunteer to share with the class. 2. Students will review how to ensure an accurate measurement. 3. Students will work in small groups to measure each object using linking cubes and will record their findings in their math journals. 4. Students will volunteer their answers from their math journals. If there are any discrepancies students will work through the problem together to help their classmates understand any mistakes.
4	1. Teacher will ask students to recall what they have been investigating with measurements this week. Teacher will accept student responses and remind students of the list that they created. 2. Teacher will explain that students will demonstrate their new knowledge of obtaining accurate measurements using linking cubes. Teacher will distribute the assessment to students and monitor independent completion.	1. Students will volunteer explanations for what they have been working on with measurements for the week. 2. Students will complete the assessment to obtain accurate measurements using linking cubes independently.

Summative Assessment Items: *Attach here.* For each summative assessment item, include an answer key or scoring rubric describing how points are to be awarded.

Measurement Assessment

Strand: Measurement & Data

Cluster: Measure lengths indirectly and by iterating length units

Standard: #2: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.

Essential Student Question: Can you express the length of an object as a whole number of length units?

Each student will need linking cubes to complete the assessment.

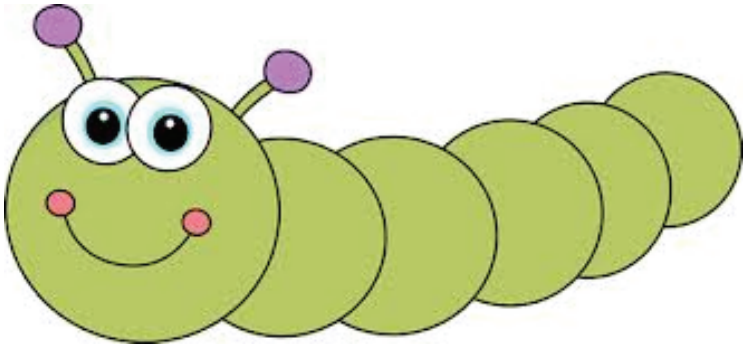
1. How long is the ladybug?

= _____

2. How long is the bee?

= _____

3. How long is the caterpillar?

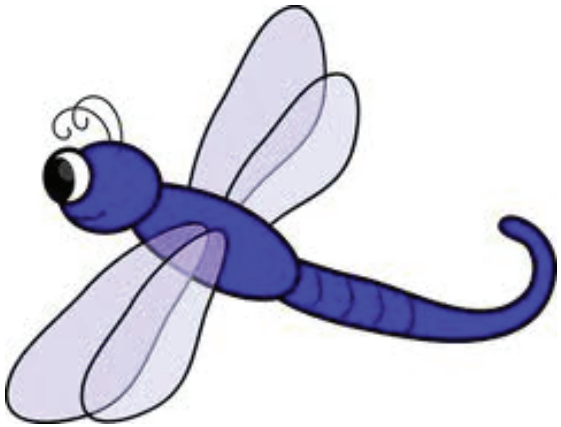


= _____

4. How long is the snail?

= _____

5. How long is the dragonfly?



= _____

Measurement Assessment Answer Key

1. = 3 (1 point)

2. = 2 (1 point)

3. = 5 (1 point)

4. = 2 (1 point)

5. = 3 (1 point)

Summative Assessment Scoring Criteria

Raw score_____/x20= _____/100 points

The 100 points possible assessment will reflect the school's grading scale:
90 -100 = A – Mastery
80 – 89 = B - Mastery
70 – 79 = C – Needs Screening for Remediation
60 – 69 = D – Needs Remediation
0 – 59 = F – Needs Intensive Remediation