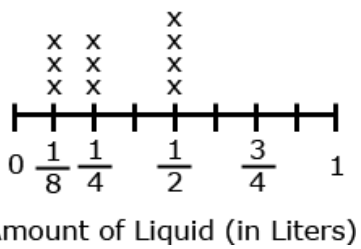
Curriculum Sample Template

Max. 8 Pages

Grade Level	Fifth Grade	**Content Area**	Mathematics
Course Title (grades 9-12 Only)			
Expected Prior Knowledge *The knowledge/skills mastered earlier in the year foundational to the mastery of the required Standard in the current sample.*	The scholars will know how to use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. The understand how to use a number line and count from 0 to 100. They can read and comprehend measurement, data and how to read and plot graphs.		
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.*	The scholars will make sense of problems and persevere in solving them, abstractly and quantitatively reason, use models to show depth of understanding as well as the appropriate tools strategically. Each scholar will demonstrate and will attend to precision and make use of structure when solving each problem. Scholars will receive direct instruction in small groups and practice demonstrating mastery to their peers and ultimately to the teacher in the form of a written assessment. Differentiated instruction will be provided in a small group setting based on the RTI model. The Tier 1 scholars will work more independently where the tier 3 will need more supports from the teacher.		
Standard Number and Description *List the Number* and the full description for the Required Standard or Science Performance Objective listed in section A.6.*	**5. MD.2.** Make a line plot to display a data set of measurements in fractions of a unit ($^1/_2$, $^1/_4$, $^1/_8$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.		
Materials/Resources Needed	Handouts, pencils, paper, whiteboards, whiteboard markers, math journal,		

* ***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	**Anticipatory Set:** The teacher will present necessary vocabulary for the scholars understanding of the current lesson. She will provide examples for scholars to use as reference as she presents the lesson. **Lesson:** The scholars will learn how to read and construct their own line plot with fractions and then solve them **Guided Practice:** The teacher will present the necessary vocabulary for the unit. The teacher will write the vocabulary words on the board and activate the scholar's prior knowledge for each word. The scholars will share what they know about each term. The teacher will write the definition on the board and the scholars will copy the term and definitions in their journals. The teacher will then introduce how to plot a line and input basic numbers and data. The teacher will read a few problems and practice plotting on the board. The teacher will have the scholars practice an equation. The teacher will work out 2-3 problems with scholars for understanding. **Independent Practice:** Scholars will work with a partner to reason and solve problems provided by the teacher. The teacher will walk around and provide assistance as needed. **Closure:** The teacher will have scholars state each step of the process to check for understanding.	1. Scholars will write down the math vocabulary for the current lesson in their math journal. 2. The scholars will then write down the meaning for each vocabulary word and write down an example to assist them with their understanding. 3. The scholars will get out their white boards and markers. 4. The scholars will write down the problem as the teacher writes it on the whiteboard. 5. The scholars will write down each step as the teacher is speaking and working out the problem.
2	**Anticipatory Set:** The teacher will put a math problem of the day on the white board for the scholar to complete in their journals **Assessment Item 1:** The teacher will present the assessment item 1. The teacher will assess the scholars understanding by asking them questions from the previous day that relates to math vocabulary.	1. Scholars will write and solve the math problem of the day in their math journals. 2. Scholars will take the assessment item 1 independently and turn it into the teacher for scoring.

	Lesson: The scholars will continue to work on line plots with fractions. They will work on problems with a partner provided by the teacher. **Guided Practice:** The teacher will do a mini review to ensure that all scholars understand the concepts before having them work with a partner. Teacher will have the scholars work out a problem and then scholars will come up and explain each step they used with correct terminology to solve equation. • Ten beakers, measured in liters, are filled with a liquid. Liquid in Beakers  The line plot above shows the amount of liquid in liters in 10 beakers. If the liquid is redistributed equally, how much liquid would each beaker have? (This amount is the mean.) Scholars apply their understanding of operations with fractions. They use either addition and/or multiplication to determine the total number of liters in the beakers. Then the sum of the liters is shared evenly among all. **Independent Practice:** Scholars will work with a partner to come up with three questions in regards to the problem and then answer the problem. Together the scholars will solve the line plot equation that was provided by the teacher with the necessary information. Teacher will observe scholars and ask guided questions to check for understanding.	3. The scholars will review vocabulary from the previous day. 4. The scholars will review each step of the line plot process with the teacher as she performs the operation on the white board. 5. The teacher will present a line plot situation and have scholars come up and perform the necessary steps to solve equation on the white board. 6. The scholars will work out problems presented by the teacher with their partner.

	Closure: The scholars will work out the problem with a partner and explain to the class the steps they used to perform the correct steps of operation.	7. The scholars will present their findings to the teacher and explain their answers and how they found them.
3	**Assessment 2:** The students will take the assessment to show that they understand the material presented from the previous day. **Anticipatory Set:** The teacher will present a different set of data to have students complete the line plot using data from the scholars' math test scores. The teacher will explain that the data used will allow them to make a line plot but will have students also find the mean, median, and mean of the equation. **Lesson:** Using data provided from the scholars to perform and solve their own line plots **Guided Practice:** The scholars will work with the teacher to formulate a new set of data to solve the line plot. **Independent Practice**: The scholars will work with their partner to come up with their own set of data and then apply that information into a line plot. When the scholars are finished they will write their equations and information on the whiteboards. **Closure**: Scholars are presenting to the class the steps they used to solve equation. The scholars will perform operations and use correct terminology in their explanation.	1. The scholars will take the assessment item 2 and turn it into the teacher 2. The scholars will continue to perform line plot operations with different types of data. 3. The scholar will work with the teacher 4. The scholars will work with a partner and solve equations. 5. The scholars will then formulate 5 questions in regards to the equation and then answer them. 6. The students will each formulate an equation and have a fellow scholar perform and solve the equation.
4	**Unit Assessment:** The scholars will construct a line plot and solve from the information provided from the teacher	1. The scholars will perform the assessment as directed from the teacher 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.

Assessment Item 1: This assessment is designed to assess the scholar's knowledge of the terms needed for this unit. The scholars write down terms as the teacher dictates them out loud. The scholars will have to write definitions to match terms. The scholars will then write a definition for each word and use the word in a sentence.

Scoring: 10 points 1 point for each correct answer: A correct answer will include the proper definition and correct usage in a sentence.
10=100% 9=90% 8=80% 7=70% 6 = 60%
Mastery: A score of 8 points / 80% will determine mastery

Fifth Grade Assessment Item 1

Name_____
Directions: Scholars will write down the terms as the teacher dictates to them aloud. Write down a definition and use it in a sentence

Rubric: beakers=container when using liquid for measuring, fractions = a part of the whole, Line plot= a graph that is used to plot data, liter+ metric unit of measure, equally=each part is the same, outliers= data that stands out from the rest, mean= average of the collected data, mode+ the most frequently used number, median= the middle number in a set of data, range=the difference from the smallest and largest
Vocabulary: beakers, fractions, line plot, liters, equally, outliers, mean, mode, median, range

Assessment Item 2
This assessment is designed to assess the scholar's ability solve problems using mean, median, mode and plot data on a line. The assessment is four questions where the scholar will answer questions and show their work.

Scoring: Each problem is worth 5 points for a total of 20 points: 4=100% 3=75% 2=50% 1=25%
Name _____
Date_____

Show all work

1. What is the correct process to find the mean, mode and median? Write down steps.
2. How the liquid is equally distributed amount 4 beakers with the fractions 1/3, 1/5, 2/3, 4/5?
3. Draw and show how to plot the fractions in question 3 on a line plot
4. What are the definitions for: mean, mode, median?

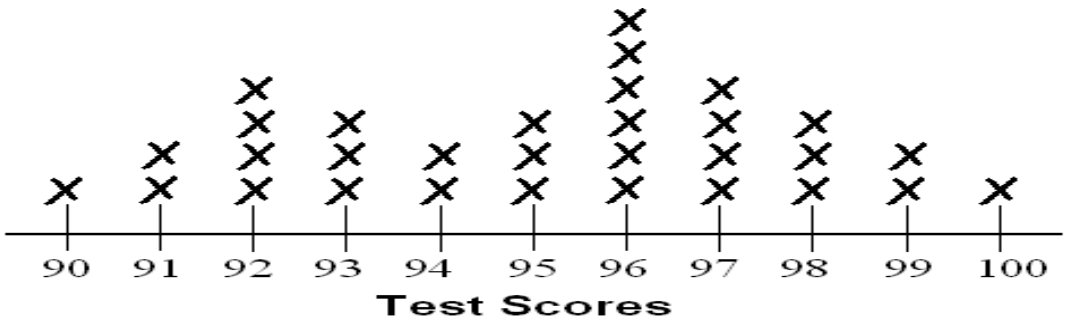
Rubric:

1. Put all numbers in the data in order from lowest to highest, that will allow you to find the median as it is the middle number, if the data has an equal number then the two middle numbers are first added then divided by 2. For the mode it is the most frequent number used in the set of data provided. The mean is the average of all the numbers in the set of data. You first add them all up and then divide by the number in the set.
2. First find the common denominator for each fraction. The use that number to place them correctly on the line plot. 1/3=5/15, 1/5=3/15, 2/3=10/15, and 4/5=12/15. On the line plot 1/5, 1/3,2/3,/4/5 would be the correct order.
3. _____
   1/5 1/3 2/3 4/5
4. Mean= middle number, Mode= most frequently used, Median=the middle number when all data is placed in order

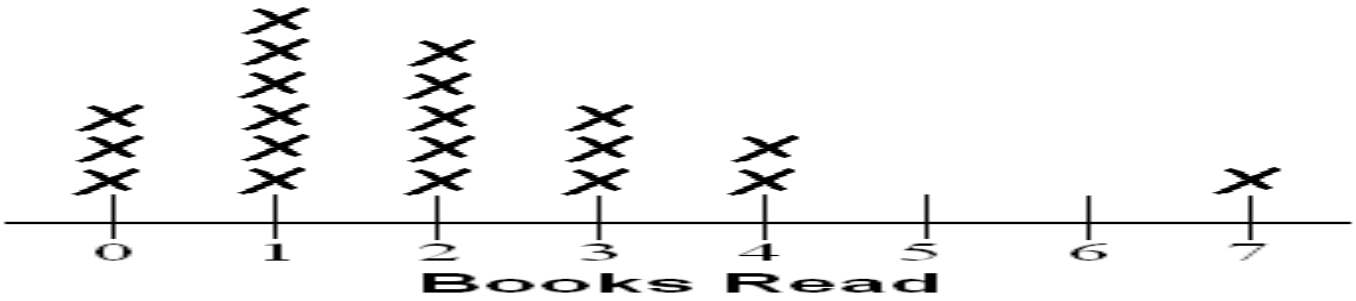
Unit Assessment 3

This assessment is designed to assess the scholar's ability to master the standard. The scholars will plot data on a lint plot and evaluate the data. This assessment consists of ten questions requiring the scholars to read and each question.

Mr. Sanders gave his scholars a history test.
The scores are shown on this line plot.



1. What is the range of these scores?
2. How many students received a test score higher than 96?
3. How many students received a score below 92?
4. How many students took the test?
5. What was the average test score overall?



6. What is the outlier in the set of data?
7. How many books were read in all?
8. What is the mode of the data?
9. What is the mean number of books read?

10. Which of the line plots represents the prices of different story books given below?

$10, $30, $10, $10, $20, $30, $50, $40, $45, $50, $10, $30, $35, $30, $20, $40, $50

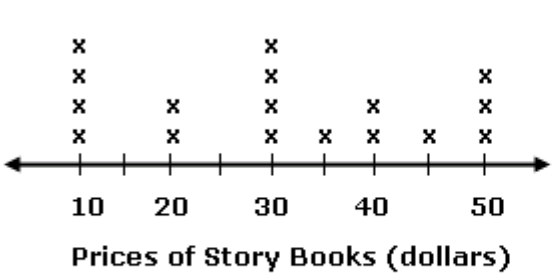


Figure 1

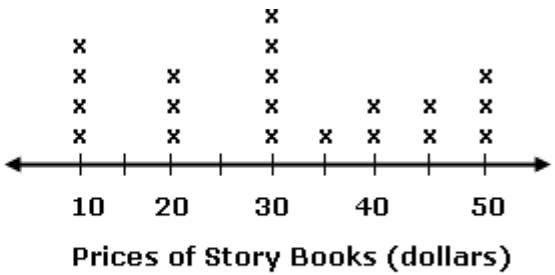


Figure 2

Rubric: (1)10, (2) 10, (3) 3, (4) 31, (5) 95.1, (6) 7, (7) 20, (8) 1, (9) 2, (10) Figure 1
Assessment 3 is worth a total of 100 points, each question is worth 10 points. The scholar will achieve mastery of the material with a score of 80% or better.
The scale in which the scholars achieved mastery is as follows: 100=A, 90=B, 80=C, 70=D, 60= F