Curriculum Sample Template

Max. 8 Pages

Grade Level	Sixth Grade Math	**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 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. Read and interpret the data displayed on the graph. They can comprehend and calculate the mean, median and mode and how to use the data to calculate each.		
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 aligns to the Program of Instruction as the teacher will provide direct instruction in a small group setting according to the RTI model set up for all scholars in the class. Each scholar will solve problems and will practice mastery of the standards with their peers and ultimately to the teacher as well as master a written assessment of the standard. The unit follows the Core Knowledge Sequence and the 2010 Common Core Standards for the domain of measurement and data. The curriculum presented is differentiated and individual tutoring is schedule based on scholar need and assessment scores.		
Standard Number and Description *List the Number* and the full description for the Required Standard or Science Performance Objective listed in section A.6.*	**6. SP.2.** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.		
Materials/Resources Needed	Handouts from the teacher, pencils, paper, whiteboards, whiteboard markers, math vocabulary note book and 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.	Lesson: Scholars understand why data is important Guided Practice: Teacher will introduce unit vocabulary and write definitions on the board. • Line plot • Cluster vocabulary	1. Scholars will copy from the board and write down vocabulary terms and meanings in their math journals. 2. Scholars will write down the problems on their whiteboard that the teacher put on the whiteboard. 3. The scholars will follow the steps as the teacher performs them on her whiteboard.
2.	Anticipatory Set: Review and explain the assessment **Assessment 1** is an assessment of math vocabulary terms. Lesson: Scholars will make a line plot and record data Guided Practice: The teacher will ask scholars to get into learning groups for direct instruction. Independent Practice: The teacher will assign scholars to groups of two. They will use the data presented in the guided practice and make their own line plot	1. The students will be given an assessment in which they match the terms of vocabulary with the correct meaning of the word. 2. The scholars will review with the teacher one problem before getting to work with a partner. 3. The scholars will work with a partner to complete the assigned problem from the teacher.
3.	Lesson: Line Plot **Independent Practice**: The teacher will have students make their own line plot and provide all necessary information for their partner to solve equation. **Assessment Item 2:** Students will read and analyze the data from the provided line plot to answer questions	1. The scholars will review line plot vocabulary. 2. The scholars will review their math journals. 3. The scholars will work with a partner to formulate a problem with data and then the scholars will switch and solve. 4. The scholars will then write their problem on the whiteboards and solve for teacher to review.

4.	Lesson: Unit Assessment	1. The scholars will be given a set of data that they then have to use to formulate their own line plot. The line plot will have to cover outliers, mean, median, mean, range and any clusters of data. The scholars will have to make 5 questions and provide answers frothier final assessment to measure mastery of material.

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 1: Formal assessment
The students will match vocabulary to the meaning of each word.
Vocabulary: clusters, mean, mode, median, range, outliers, line plot

Name_____
Date_____

Vocabulary Terms	Meaning
1. Clusters	A. the average of a set of numbers
2. Outliers	B. the number that shows up the most in the set of data provided
3. Mean	C. observation that is numerically distant from the rest of the data
4. Median	D. a group of things or persons together
5. Mode	E. is the middle number in a set of data

Answers: 1(D), 2(C), 3(A), 4(E), 5 (F), 6(B)

The assessment 1 will address the scholars' ability to master unit vocabulary. The scholars will match terms to the vocabulary words. Points will be earned for matching the correct word to definition.
Scoring: Each question is worth 2 points for a total of 10 points.
5 = 100% 4= 80% 3= 60% 2= 40%
Mastery will be achieved with a score of 80% aligns with Program of Instruction.

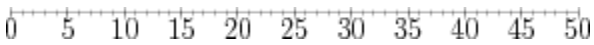
Assessment 2:

Name_____

Date_____

Show all your work

1. a) Display the following numbers on a number line: 7, 6, 9, 10, 11, 6, 8, 12, 5, 13, 48



(b) Find the mean, median and mode.

2. Michael Phelps is a math teacher. On Michael Phelps's last math test, his students earned the following scores:
   82, 96, 91, 100, 94, 78, 100, 90, 95, 88, 92, 98, 100, 82, 93, 80, 94, 90, 76, 90, 84, 100, 82, 96
   A. Use the data to complete the line plot below:

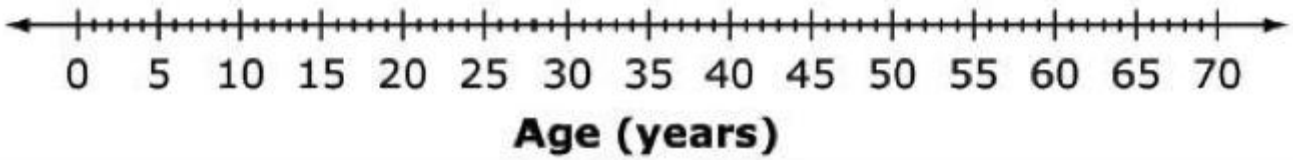
   B. Find the Mean
   C. Find the Mode
   D. Find the Median

3. The ages, in years, of the 28 members of a gym class are listed in the box below.
   Use a number line to display your results.

Ages of Gym Class Members

19, 21, 22, 27, 29, 31, 31, 31, 33, 34, 37, 38, 39, 39, 39, 41, 43, 45, 46, 47, 49, 49, 51, 51, 52, 54, 56, 63

Plot: Ages of Gym Class Members



4. Adrian Peterson is a recreational golfer. Each time he plays 18 holes, he records his score in a computer program. Midway through the season, Adrian Peterson gets curious about his overall performance. Adrian Peterson's scores for the season are as follows:

   71, 71, 75, 76, 76, 77, 77, 78, 78, 78, 79, 80, 80, 84

   (a) Create a line plot to visualize the data.
   (b) How would you describe Adrian Peterson's overall performance?

Assessment 2: This assessment will address the scholars' ability to use provided information to construct a line plot.
Scoring: Each question is worth 5 points for a total of 20 points.
4=100% 3=75% 2=50% 1= 25%
Mastery will be achieved with a score of 75% with the Program of Instruction.
Answers:

1. A.

   B. 48
   C. Mean (12.3)
   D. Median (9)
   E. Mode (6)

2. A.

													X
			X				X						X
			X				X			X		X	X
X	X	X	X	X		X	X	X	X	X	X	X	X
76	78	80	82	84	86	88	90	92	93	94	95	96	98	100

   B. Mean (86.13)
   Mode (tri-model 82, 90, 100)
   Median (91)

3. A.

						X					X									
						X					X					X	X			
X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15	19		21	22	26	29	31	33	34	37	38	39	41	43	45.46	49	51	5354	56	63

   B. Mode (Bi-Model 31, 39)
   Mean (40)
   Median (39)

4. A.

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                    X
   X          X   X X   X
   X        X  X  X  X  X  X        X
 ._____________________________________.
70.71.72.72.73.74.75.76.77.78.79.80.81.82.83.84
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B. Answers will vary, some suggestions: his scores are mostly in the 70's, plays most of the time in the high70's, does not have an outlier or bad days playing, he is consistent with his playing overall

Assessment 3: Final Assessment
Name_____
Date _____

The students will formulate 5 questions that relate to making a line plot. The questions need to include all vocabulary terms such as: mean, median, mode, outlier, cluster, and range. The line plot needs to be diagramed with the information to solve statement and questions. The answers need to be provided to each question. The questions have to be in a logical sequence of order for fellow students to follow and solve.

Final Assessment: 5 questions that students formulate themselves.
The students will need to write down 5 questions and the answers with examples that cover the material learned this week. The questions will then be used for assessments by the teacher to assure mastery on the said topic.