

Math & Science Collaborative Lesson Plan



Northwest Educational Service District 189

Together We Can

Lesson Title: **Building fluency with Median, Mode, Mean, and Range**

Unit Learning Target (Standard/Performance Expectation(s)) 5.5.B Determine and interpret the mean of a small data set of whole numbers. CCSSM 6.SP.5.c	
Building Block or Lesson Learning Target: Define, demonstrate and calculate the arithmetic mean of a given data set	Student Success Criteria: Submit an organized paper with the assigned classroom data
Previous Lesson Learning Target: Demonstrate and define the meaning of statistical terms data, median, mode and range and explain how to collect data and write statements about data	
Target Introduction/ Thinking Question * What do you think are the average number of letters in the first names of the students in this classroom? How would you find that number?	
Lesson Progression (Flow) with Talk-Structures (Student Discourse) <ul style="list-style-type: none"> Review vocabulary and their definitions Problem solve with a partner, given five names from students in this class, what is the typical length of a student's first name? (show more than 1 way) Students share with the class their various answers and discuss supporting evidence. Ask each student to write a statement about their 5 name data information. Return to your classroom data and organize it, write a statement using correct vocabulary, point out what you notice about the data, and why you think it is typical or not. If a new student joins the class what do you expect the length of the student's first name to be? If you remove one name from your list, can it be done so there is no change to the mean, mode, or median? Can one name be removed so the mean, median, or the mode increases? Assign homework problems to practice finding median, mode, mean and range. 	Key terms for this lesson mean, median, mode, central tendency, average, range, data, arithmetic, midpoint, distribution, frequency, data set, number set, sample set, outlier, statement, T-table, central tendency Formative Task or Question* <i>Designed to elicit student misconception(s)</i> What does the mode tell you about a set of data? What does the median tell you about a set of data?
Lesson Closure Students will fill out the "I Learned" exit pass and turn it in to the teacher.	Exit Task* Student Exit Pass – "I Learned"

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<p>Do the Math for the Thinking Question</p> <p>Calculations will vary depending on the list of student names</p>	<p>Lesson Anticipated Misconceptions:</p> <p>Students not knowing how to label the graph axes</p> <p>Students not ordering the data before finding the median and mode</p> <p>Students not knowing what to do with an even number of data entries when finding the median</p> <p>Student confusion over the meaning of Range, median, and mode</p>
<p>Lesson Instructional Adjustment(s) (if needed) <i>Tied to common misconception(s)</i></p>	<p>Manipulatives and materials to include and have ready to support the lesson *</p> <p>Unifix cubes Graph paper Rulers and Colored Pencils</p>

* Opportunity for formative assessment