Unit Topic: Statistics and Data | Franklin-Simpson Middle School | Date: Aug 11 -

DAY IN UNIT	*Content Strand *Learning Target -I Can *Essential Questions -WHY?? -How do you know? Curriculum document Common Core	Vocabulary/ Vocab Activity Activities Activities II	Thoughtful Ed./ Student Engagement www.marshall.kyschools.us/ www.muhlenberg.kyschools.us/?q=node/61 Engagement Cube Cube II (examples)	Literacy/Reading in the Content Literacy Ideas	Formative/ Summative Assessment F –Formative S-Summative www.act.org/standard/guides/explore/ Strategies More Ideas	Differentiation T-Task S-Special Needs G-Gifted/Accel. http://serge.ccsso.org/ Ideas 9 Types Big Explanation Tool	Technology 50 Ideas
1	6.SP.1 Statistical Questions: I can explain what makes a good statistical question. After discussion on statistical questions, students create their own example of a statistical question and post if for discussion at wallwisher.com/wall/phillipsmath	variability	Wallwisher.com Graphic organizer	Reading, writing, listening to a variety of questions.	F – Students post answers on wall.	T – Students may generate their own question at their level of thinking. S – Students may see many examples before developing their own or may come up with one as a group. G – Students will create a more complex question.	Wallwisher.com
2	6.SP.1 Statistical Questions: I can develop a question that can be used to collect statistical information. Students will develop a statistical question to research and receive at least 20 responses.	variability	Students will create a question and interact with others in order to collect data.	Speaking with others, recording data in a chart.		Same as above	
3	6.SP.5 Analyze Data:	Chart Table		Students will write to explain their data	F – Students will create a data display and analyze	T – Choice of display S – Work with peers	

	I can write a data collection summary that includes the number of observations, what is being investigated, how it's measured and the units of measurement. Students will display the collected data in a chart, table, or graph. Students will include a written summary of the data as listed above.	graph		collection process and results.	the process and data collected.	G – Provide deeper analysis of data.	
4	6.SP.2, 6.SP.3 Measures of Central Tendency: I can describe the center of a set of data. I can define center as a single value that summarizes a data set. Explore the concepts of mean, median, and mode. Teacher demonstrations. Utilize strips of paper to determine mean, median, mode of the lengths of shoes in your group.	Mean (leveling) Median Mode	Graphic Organizer Compare and contrast mean, median, mode. Interaction with demonstrations.		F – check student understanding of concepts.	T - Students may compare/contrast either 2 or 3 of the concepts.	
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5	6.SP.2, 6.SP.3 Measures of Central Tendency: Same as above.	Mean Median Mode	Work with peers to calculate mean, median, mode.	Speak with peers about procedures for determining	F – Monitor groups and check in with them on their progress.	S-Work with teacher, do fewer problems.	

	Students will practice finding measures of central tendency. Wkst 2-4			mean, median, mode.			
6	6.SP.2, 6.SP.3 Review measures of central tendency and take a quiz over the concepts.	Mean Median Mode			S – Concept Quiz		
7	6.SP.2, 6.SP.4, 6.SP.5 Dot plots and line plots: I can describe the spread of a set of data in terms of gaps, symmetry, clusters, or skewness. I can organize and display data as a line or dot plot. I can describe overall patterns in the data and how they relate to the problem. Use wkst. 2-3 to display and describe data in dot plots.	Distribution Spread Center (median, mode) Shape Skew Peak (mode) Clusters Gaps Symmetry Outliers Line plot Dot plot	Graphic Organizer Analyze and describe the data with the vocab. Visual vocab words.	Read data	F – teacher/student discussions F – create product		
8	6.SP.2, 6.SP.4, 6.SP.5 Same as above Math Lab: Line Plots Use lab sheet 5.4. Students work in group to complete activity.	Same as above	Have a discussion with a group about which center measure is the best representation for each of our data sets.	Read data Speak with group members	F – peer to peer F – teacher observation		
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9	6.SP.2, 6.SP.3 Spread of data: I can describe the spread of a set of data in terms of extremes. I can define a measure of variation as the range of the data, relative to the measures of center (mean absolute deviation) I can find measures of variation by calculating the interquartile range or the mean absolute deviation of a set of data. Utilize teacher examples and/or student examples from previous lesson (3). Explore concepts of data spread.	Range Quartile Interquartile range Mean absolute deviation Deviations Outlier (extremes)	Graphic organizer Note taking Interact with data	Read data	F – class discussion		
10	Same as above. Continue using data to explore concepts of spread. Practice finding range, quartiles, mean absolute deviations.	Same as above.					
11	6.SP.4 Box Plots (Box and Whisker Plots) I can organize and display data in a box plot. I can determine the upper and lower extremes, median, and upper and lower quartiles of a set of data in a box plot. Use wkst.2-6 to display box plots.	Box Plot Median Lower extreme Lower quartile Upper quartile Upper extreme	Graphic Organizer Create a product Interact with data	Read data	F – class discussion F – create product		
12	6.SP.4 Same as above			Read data Speak with group	F – peer to peer F – teacher observation		

	Math Lab: Box Plots Use lab sheet 5.5 Students work as a group to complete the activity.			members			
13	6.SP.4 I can organize and display data in a histogram. Use wkst. 2-1 to organize and display histograms.	histogram	Graphic Organizer Interact with data	Read data	F – create product F – class discussion		
14	Review Unit						
15	Unit Test				S – Unit test		