Diocese of Wheeling-Charleston

Math CASE Unit Planner

Name of Teacher: Nicholas Turner	**Grade Level:** 6
Domain: Mathematics - Progress in Mathematics	
Estimated Duration of Unit: 3-4 weeks	
Specific Clusters Addressed: *SP* (**Statistics and Probability -** Develop understanding of statistical variability), *SP* (**Statistics and Probability -** Summarize and describe distributions)	
Teaching Strategies: Whole Group Instruction, Warm-Up Activities	
Catholic Identity Connections: Cross Curricular Opportunities	
Assessment (authentic/published - summative/formative): Check Your Progress 1 (Lessons 1-6) published and formative, Check Your Progress 2 (Lessons 7-11) published and formative, Chapter 6 Test: authentic/published and summative.	

Standards Addressed

Standard Number	
M.6.SP.1	*Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
M.6.SP.2	*Understand that a set of data collected to answer a statistical question has a distribution that can be described by its center, spread, and overall shape.*
M.6.SP.3	*Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.*
M.6.SP.4	*Display numerical data in plots on a number line, including dot plots, histograms, and box plots.*
M.6.SP.5	*Summarize numerical data sets in relation to their context, such as by:*
	A) Reporting the number of observtions.
	B) Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
	C) Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
	D) Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Description of Activity	Resources	Date of Completion
9-1 Surveys: **To interpret the results of a survey. To identify factors that may affect the reliability of a survey.**	Sadlier-Oxford Textbook page 292-293 and Workbook page 106	1/18/2017
9-2 Samples: **To understand samples and how to select them. To use sample data to make predictions about an entire population.**	Sadlier-Oxford Textbook page 294-295 and Workbook page 107	1/19/2017
9-3 Bias in Surveys: **To identify bias in a sample, question, or display.**	Sadlier-Oxford Textbook page 296-297 and Workbook page 108	1/23/2017
9-4 Record and Interpret Data : **To make and interpret frequency tables.**	Sadlier-Oxford Textbook page 298-299 and Workbook page 109	1/24/2017
9-5 Apply Measures of Central Tendency and Range: **To find and use the range, mean, median, and mode of a data set.**	Sadlier-Oxford Textbook page 300-301 and Workbook page 110	1/25/2017
9-6 Analyze Data: **To identify clusters, gaps, and outliers for a set of data. To interpret and make line plots.**	Sadlier-Oxford Textbook page 302-303 and Workbook page 111	1/26/2017
Chapter 9 Check Your Progress Lessons 1-6	Online Worksheet on Sadlier-Oxford Website	1/27/2017
9-7 Box-and-Whisker Plots: **To interpret box-and-whisker plots. To make box-and-whisker plots show the distribution of d**	Sadlier-Oxford Textbook page 304-305 and Workbook page 112	1/30/2017
9-8 Stem-and-Leaf Plots: **To make and interpret a stem-and-leaf plot.**	Sadlier-Oxford Textbook page 306-307 and Workbook page 113	1/31/2017
9-9 LIne Graphs: **To analyze line graphs. To make line graphs.**	Sadlier-Oxford Textbook page 308-309 and Workbook page 114	2/1/2017
9-10 Double Line Graphs: **To interpret double line graphs. To make double line graphs.**	Sadlier-Oxford Textbook page 310-311 and Workbook page 115	2/2/2017
9-11 Double Bar Graphs: **To make double bar graphs. To interpret double bar graphs.**	Sadlier-Oxford Textbook page 312-313 and Workbook page 116	2/3/2017
Check Your Progress Lessons 7-11	Online Worksheet on Sadlier-Oxford Website	2/6/2017
9-12 Misleading Graphs and Statistics: **To analyze graphs and statistics to determine if they are misleading.**	Sadlier-Oxford Textbook page 314-315 and Workbook page 117	2/7/2017
9-13 Histograms: **To make/use a frequency table in preparation for constructing a histogram.**	Sadlier-Oxford Textbook page 316-317 and Workbook page 118	2/8/2017

6-14 Interpret Circle Graphs: **To interpret circle graphs.**	Sadlier-Oxford Textbook page 318-319 and Workbook page 119	2/9/2017
Chapter 9 Test Review Day	Sadlier-Oxford Textbook Lessons 1-14 Review and Check Your Progress Textbook Page 324 and 326	2/10/2017 and 2/13/2017
Chapter 9 Test	Part 1 - Sadlier-Oxford Resource Test Booklet Part 2 - Post Test from Sadier-Oxford Website	2/15/2017 and 2/16/2017

Differentiated Instruction Opportunities/Overview: Sixth Grade class has been split into two classes based on ability. This unit is written for the on-level group.

Cross Curricular Opportunities:

Standard Number	Standard Description		Resources	Date

	Mathematical Practice Standards - 8 Progressions	Check all the Apply
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.	Check
5	Use appropriate tools strategically.	Check
6	Attend to precision.	Check
7	Look for and make use of structure.	Check
8	Look for and express regularity in repeated reasoning	

Summary of Unit after Completion: By gathering, recording, and organizing statistical data, students gain useful experience thinking critically and drawing conclusions based on displays of tabular or graphical data. They also learn how best to choose appropriate statistical measures and to identify misinformation in graphs and tables. In this chapter, students develop a sense of how and when to use a variety of statistical measures and graphs, and how to make inferences and draw conclusions from graphs and statistical measures. Students will also investigate how sampling procedures and bias can affect survey results. As a prerequisite for later study of complex statistical measures, such as variability and correlation, students will learn to distinguish measures of central tendency. The work students do in this chapter prepares them for recognizing the role of sampling in statistical claims and for designing statistical experiments.