SOL Curriculum Correlation – 7th Grade Math

7th Grade Math	Desktop Publishing	Database	Spreadsheet	Presentation	Graphic Organizers	WebQuests & Interactive Lessons
Chp. 1 Interpreting Data and Statistics **SOL 6.18, 7.1, 7.20, 7.19**	Find a graph in print or on the in ternet that is misleading. Explain why the graph is misleading and why a company might display graphs that are misleading.	Begin a database that will include math vocabulary words, definitions and examples.	Use survey to collect data. Input data in SS. Graph the results.	Create a presentation showing examples of each type of graph studied in this chapter. Insert spreadsheets and graphs made from data in spreadsheets into the presentation.	Create a flowchart showing steps needed to create a histogram. Compare and contrast bar graphs and histograms	Histogram and Bar Graphs Interactive Histogram Activity Interactive Graphs-Stem & Leaf, Etc Interactive Box Plot Generator
Chp. 2 Application of decimals **SOL 6.6, 7.1, 7.3, 7.4**	Create a menu for your own restaurant. Include the prices in dollars and cents. Students will be able to order items and find the total bill.	Add vocabulary to database.	Create a Budget	Students will design a presentation explaining how to model decimal products using decimal squares. Use the draw program or find clip art on the web, which illustrates decimal models.	Create a place value chart showing values of digits larger and smaller than one. Compare repeating and terminating decimals.	
Chp. 3 Algebra: Integers and Equations **SOL 7.6, 7.23,7.24,7.25**	Explain the steps for solving two step equations by using inverse operations. Give examples.	Add vocabulary to DB		Create a presentation showing examples of integers in real-life situations. Illustrate.	Create a Venn diagram showing how equations are different and how they are alike.	
Chp. 4 Fractions and Number Theory **SOL 6.4, 7.1, 7.2, 7.3**	Use draw program to create fraction models. Explain how we can use the models to complete fraction operations.				Create a flowmap showing steps used to find GCF and LCM.	
Chp. 5 Application of Fractions SOL 6.9		Create a database with customary units of measure for length, weight, and capacity.		Draw models of fractions with like denominators and unlike denominators. Show how to add or subtract these fractions.	Create a flowchart showing how to add and subtract fractions with like denominators. Create a flowchart showing how to add and subtract fractions with unlike denominators.	
Chp. 6 Using Proportions and Percents **SOL 6.1, 7.1, 7.7, 7.12**	Create an advertisement for a grocery store. Show total price and unit price for each item advertised. Use a draw program to create similar figures. ID the corresponding sides of each pair of similar figures.	Add vocabulary to DB	Create a SS with percents, decimal, and fractional representations. Include a 10X10 model of each. Input data in a spreadsheet and create circle graphs. Show % in the graph.	Create a presentation showing ways we use proportions in our life: include diet, travel, architecture, art, etc. Why is is important to understand proportion. Create models which illustrate the meaning of percent. Use them in a presentation.	Create a flowmap showing steps for solving percent problems.	Population ratios
Chp. 7 Investigating Geometry **Sol 6.12, 6.16, 7.10, 7.11, 7.12, 7.14, 7.22, 8.13**	Draw models of the types of triangles. Classify triangles by angle measure and by sides.	Add vocabulary	Create a spreadsheet to determine the relationship between the number of sides and the sum of the measure of the interior angles. Students can input the correct formula once they determine what it is to check their answers.	Create a presentation about polygons. Include examples and descriptions/;definitions of each type of polygon.	Use a Venn diagram to classify polygons.	Pattern Investigation Tile the bathroom and then discover the pattern.
Chp. 8 Geometry and Measurement **SOL 7.8, 7.9, 7.13, 8.6, 8.11**	Use draw program to help students understand difference between area and perimeter. They “paint” the inside of a drawing to cover the area. They choose line color and width of line for the perimeter of a figure.	Create a database with geometric formulas. Include drawings and explanations of how to use the formulas.	Give each student an 8 x 10 sheet of poster paper. Have each group cut out a different size square from each corner. (1x1, 2x2, 3xd3, 4x4) Set up a spreadsheet with dimensions of a box-length, width and height. Input the formula for volume of a prism. How does the volume change when the width and height change.	Create a presentation that includes drawing or clip art of each type of space figure. Include real-life examples(use clipart from internet.) Explain how to find surface area and volume of each type. Give a real life example of when the formula might be used (other than in math class!)	Compare volume and surface area. Create a flowmap Showing how to find circumference and area of a circle.	Draw a shape and find area and perimeter Surface area and volume of prisms

Chp. 9 Using probability **SOL 7.15, 7.16, 7.17, 7.18**	Create an experiment. Represent the sample space for the experiment in a list, a chart, a picture and a tree diagram.		Do an experiment (rolling dice and finding sums) Collate all data and have students use a spreadsheet program to graph and analyze the data.	Create a presentation describing at least two of the games in the Va. Lottery. Show the probability of winning. Are the odds determined by using combinations or permutations? Show how to compute the odds.	Compare dependent and independent events. Compare permutations and combinations. Make a flowmap showing steps for permutations and for combinations.	Interactive lesson comparing experimental and theoretical probability Introduction to Probability Lesson on sample space
Chp. 10 Patterns and functions **SOL 7.1, 7.21, 7.22, 8.18, 8.19**	Define sequence. Give numerical examples and models to illustrate sequence.	Add vocabulary to DB.	Use a spreadsheet to create a function machine. Input values for x and y, have students generate the function used to find the y values. Alien Spreadsheets-Determine the Function Rule	Design a presentation showing patterns in nature, in art, in numbers, in music, and in poetry. Use web resources to find photos and clipart. Explain why patterns are so important. Create a presentation on the different ways used to represent functions. Use one example and show how it is represented by a rule, a table, and a graph.	Compare simple and compound interest. Create a flowmap showing steps for writing numbers in scientific notation.	Introduction to Functions Pattern Investigation Tile the bathroom and then discover the pattern. Online Function Machine Graph functions and read simple functions from a graph
Chp. 11 Graphing in a Coordinate Plane **SOL 7.23, 8.9, 8.17**	Insert graphs and drawings of linear and non-linear relationships. Give an example of a real-life example of each: i.e. the flight of a rocket is parabolic.	Add vocabulary to DB	Set up a function table in a spreadsheet and graph. Use the graph to make predictions. Explore the number pattern in the output column.	Create a presentation showing graphs of different functions: i.e. linear, quadratic, etc. Insert spreadsheets and charts in the presentation.	Use a Venn diagram to classify slides, flips, and turns.	Interactive graphing activity Graph equations interactively Graphing on a coordinate plane-Interactive lesson Transform shapes with this interactive graph.