SOL Curriculum Correlation – 6th Grade Math

Sixth Grade Math	Desktop Publishing	Database	Spreadsheet	Presentation	Graphic Organizers	WebQuests & Interactive Lessions
Chp. 1-Using statistics to organize data SOL 6.18, 6.19 & 6.8	Create the survey to be used to collect data to graph. After using a spreadsheet to create graphs and then insert them in the document. Explain the results of your survey.	Begin a database of famous mathematicians. Include name, date of birth, and why he/she is important in the field of mathematics. Add to this throughout the year.	Use survey to collect data. Input data in SS. Graph the results.	Create a presentation describing all of the types of graphs and plots.	Create a flowchart of steps needed to create a histogram.	Is this graph possible or not? Histogram and Bar Graphs Interactive Histogram Activity Interactive Graphs-Stem & Leaf, Etc Interactive Box Plot Generator Webquest:ACC basketball:Comparing statistics Population Statistics Webquest Go shopping with applications of statistics
Chp.2- Patterns and Algebraic Thinking **SOL 6.21, 6.23,7.23, 7.3**	Using a bulleted/ numbered list,write the steps for evaluating an expression and the steps for solving an equation. Explain how expressions and equations differ.	Create a database of properties. i.e. Properties of equality, Properties of inequality. Add other properties as they arise during the year.	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.	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.	Compare and contrast expressions and equations.	Introduction to Functions Pattern Investigation Online Function Machine Graph functions and read simple functions from a graph
Chp.3- Adding and Subtracting Decimals **Sol 6.4, 6.7, 6.9, 6.10, 6.22**	Describe the relationship between metric units of length. 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.	Students will gather statistical information on animals and store the information in a database. Students can use this information to create word problems.	Create a spreadsheet with the different metric units and their values. Include length, mass, and volume. Have the students note beginning and ending times for completing a given task. Input data in a spreadsheet total. Convert the total min. to hr.	Create a presentation, which shows the correct metric unit of measure for each object shown. Objects can be drawn using a draw program or inserted from clipart.	Create a place value chart showing values of digits larger and smaller than one Compare and contrast standard and expanded form.	Decimals:Interactive practice, games, explanations
Chp. 4- Multiplying and dividing whole numbers and decimals **Sol 6.4, 6.6, 6.7, 6.9 , 6.10, 6.22, 7.4**	Explain scientific notation, who uses it,and why it is used. Use a draw program to illustrate the distributive property.	Set up a database with metric prefixes, meanings, and examples.	Design a spreadsheet with Power as 1 column and standard form in 2nd column. Place the correct formula in col. 1 to write the exponential form in standard form.	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.	Compare and contrast steps for multiplying and dividing decimals.	Online metric conversion Metric lesson
Chp. 5 – Investigating fractions **Sol 6.1, 6.3, 6.4, 7.2**	Use a drawing program to create pattern blocks. Use a draw program to create fraction bars. Show how to order by placing the bars in order from least to greatest.	Add Plato to your database.	Divisibility SS Template available. The information for the chp. Project can be placed in a spreadsheet. At the end of the chp., the students can create reports from the information gathered.	Create a presentation showing ways we use fractions in our everyday life.	Compare and Contrast prime and composite numbers. Create flowcharts showing steps for finding LCM and GCF. Show how GCF is used to simplify fractions and LCD is used to find equivalent fractions.	Visual Fractions Easy level: simplify and write equivalent fractions: Fraction four-Interactive Game Interactive exploration of fractions using pattern blocks.
Chp. 6 – Using Fractions Sol 6.6, 6.7, 6.9	Create a story problem. Draw a diagram to help solve the problem. Summarize the different methods used to complete fraction operations. List some real-world uses of these procedures.	Create a database with customary units of measure for length, weight, and capacity.	Place the ingredients for a recipe in a spreadsheet. Show how much is needed if you cut the recipe in half. How much is needed if you double the recipe?	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.	Medium level -practice operations: Fraction four-Interactive Game Who Wants Pizza: A Fun Way to Learn Fractions
Chp. 7 - Ratios, Proportions and Percents SOL 6.1, 6.2, 6.7, 6.18, 7.1, 7.7	Create an advertisement for a grocery store. Show total price and unit price for each item advertised. Research the golden ratio and explain how it is used in painting, design, and architecture. Make a drawing and then use proportions to enlarge. Use page setup in the file menu to change the scale of the drawing when it is printed.	Continue to add vocabulary word to the vocabulary database.	Place Fahrenheit and Celsius temperatures in a SS. Find the ratio of Fahrenheit/Celsius and Celsius/Fahrenheit. Simplify the ratio. 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.	Students will create a scale model and prepare a sales presentation to convince the public to choose his/her model. Create a presentation identifying ways percents are used in everyday life. Include uses in politics, sports.shopping, etc.	Create a flowmap showing all the steps for solving proportions. Compare and contrast ratio and proportion. Use diagrams to represent equal ratios. Compare the 3 types of % problems. Show steps to use aproportion to solve.	Use the internet to research a state. Gather numerical information , graph and analyze. Good interdisciplinary unit with Social Studies.
Chp. 8 – Tools of geometry SOL 6.14, 6.15, 6.16, 7.10, 7.12, 8.7, 8.9 Use Math Toolbox to complete the exercise on page 368.	Draw examples of types of angles, complementary and supplementary. Use text boxes to name and define each example.	Add to the vocabulary database	Set up a spreadsheet with information about diameter, circumference, radius, and area. Leave blanks and have the students fill in the answers.	Using the draw tool, create a shape. Use the tools in the drw program to transform the shape. Rotate, flip or move the shape. Explain each transformation.	Compare and contrast congruent and similar figures. Create a classification tree for triangles:classify by angles and classify by sides. Classify quadrilaterals.	Tessellate Transform shapes with this interactive graphe
Chp. 9 – Geometry and Measure-ment SOL 6.11, 6.12, 6.17, 7.8, 7.9, 7.13,	Research the history of P. When was it first used? What ratio can be used for Pi? What 2 measurements does the ratio compare? What is the decimal representation?	Create a database with common formulas. Include explanation of how to use the formula.	Measure various circular objects. Input the circumference and the diameter. Set up a column with a formula to divide circumference by diameter.	Create a presentation describing how to use one formula studied in this chapter. Include ways the formula is used in real life.	Classify 3-dimensional figures	Draw a shape and find area and perimeter Surface area and volume of prisms

Chp. 10 – Algebra: Integers and Graphing SOL 6.5, 7.6, 7.22, 7.25, 7.26	Explain how to solve a two-step equation.		Set up a function table in a spreadsheet and graph. Use the graph to make predictions. Explore the number pattern in the output column. Use a spreadsheet to complete example 2, p. 469.	Create a presentation showing graphs of different functions: i.e. linear, quadratic, etc. Insert spreadsheets and charts in the presentation.	Create a timeline. Events in the past are on the negative side, events in the future are on the positive side. Use the tips on pages 443, 441, 452, and 461. Create a flowchart showing how to add and subtract integers.	Graphing on a coordinate plane- Interactive lesson Interactive graphing activity Graph equations interactively
Chp. 11- Exploring Probability **SOL 6.20, 7.15, 7.18** Use Math Tools to demonstrate probability experiments.	Create a game. Use laws of probability to determine if the game is fair or unfair.	Add vocabulary to database.	Do an experiment (flipping coins, rolling dice and finding sums) Collate all data and have students use a spreadsheet program to graph and analyze the data.		Compare experimental and theoretical probability.	Interactive lesson comparing experimental and theoretical probability Introduction to Probability Lesson on sample space