Technology-Connected Lesson Plan

Title:	Skyscraper Capers
Grade Levels:	5-8
Curriculum Areas:	Science, Language Arts, Math
Measurable Objectives:	TSW research at least 3 websites to gather information on one skyscraper. TSW create a brochure of one of the world's tallest buildings. TSW make an Excel chart of the heights of 8 of the skyscrapers researched.
LA Content Standards:	**Science as Inquiry** The students will do science by engaging in partial and full inquiries that are within their developmental capabilities. **Physical Science** Students will develop an understanding of the characteristics and interrelationships of matter and energy in the physical world. • **SI-M-A1** identifying questions that can be used to design a scientific investigation; • **SI-M-A2** designing and conducting a scientific investigation; • **SI-M-A4** developing descriptions, explanations, and graphs using data; • **PS-M-A1** investigating, measuring, and communicating the properties of different substances which are independent of the amount of the substance; • **PS-M-A3** grouping substances according to similar properties and/or behaviors; • **PS-M-A5** investigating the relationships among temperature, molecular motion, phase changes, and physical properties of matter; • **PS-M-B2** recognizing different forces and describing their effects (gravity, electrical, magnetic); • **PS-M-B4**

	describing how forces acting on an object will reinforce or cancel one another, depending upon their direction and magnitude; **Interdisciplinary Connections**: • **Mathematics : Measurement** In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement. • **Mathematics : Data analysis, Probability, and Discrete Math** In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions. • **English/Language Arts : Standard One** Students read, comprehend, and respond to a range of materials, using a variety of strategies for different purposes. • **English/Language Arts : Standard Five** Students locate, select, and synthesize information from a variety of texts, media, references, and technological sources to acquire and communicate knowledge. • **English/Language Arts : Standard Seven** Students apply reasoning and problem solving skills to reading, writing, speaking, listening, viewing, and visually representing.
Technology Guidelines:	💻 Compose and edit a multi-page document with appropriate formatting using word-processing skills. (e.g., menu, tool bars, dialog boxes, spell check, thesaurus, page layout, headers and footers, word count, margins, tabs, spacing, columns, page orientation) (1, 3, 6) 💻 Use information, media, and technology in a responsible manner which includes following the school's acceptable use policy, adhering to copyright laws, respecting the rights of others, and employing proper etiquette in all forms of communication. (4, 5) 💻 Use multimedia tools and desktop publishing to develop and present computer-generated projects for directed and independent learning activities. (1, 3)
Technology Connection:	💻 Websites 💻 Publisher 💻 Excel
Procedures:	💻 The teacher begins by brainstorming to with the word "skyscraper" on a Bubble Thinking Map. 💻 She begins the lesson by introducing Skyscraper Basics

	http://www.pbs.org/wgbh/buildingbig/skyscraper/basics.html 💻 Then the students take the Skyscraper Challenge http://www.pbs.org/wgbh/buildingbig/skyscraper/challenge/index.html 💻 Students then explore forces, loads, materials, and shapes of skyscrapers http://www.pbs.org/wgbh/buildingbig/lab/forces.html 💻 Students are assigned one of the skyscrapers to gather information on. http://www.pbs.org/wgbh/buildingbig/wonder/structure/browse.html 💻 The teacher lists what information they are to gather. 💻 Students use the following websites to find more information http://www.greatbuildings.com/gbc.html http://skyscraperpage.com/diagrams/?1178316 http://www.greatbuildings.com/types/types/skyscraper.html http://www.greatgridlock.net/NYC/nyc.html http://www.pbs.org/wgbh/buildingbig/desc.html#skyscraper 💻 Students create a brochure of their building from the information gathered. 💻 Students create their own Excel chart of the height skyscrapers.
Materials:	💻 List of information to be gathered.
Assessment:	💻 Brochure rated with a rubric 💻 Excel chart
Teacher's Name:	💻 Linda Hyde Travis
School:	💻 OWD/KHS