

## PROJECT OVERVIEW PART 1: DEFINE

<b>Name of Project:</b>	Information Makes the World Go Around		<b>Duration:</b> 3 Weeks				
<b>Subject/Course:</b>	Mathematics	<b>Grade Level:</b> 7th					
<b>Other subject areas to be included:</b>	Language Arts and Technology						
<b>Project Idea</b> Summary of the challenge, investigation, scenario, problem, or issue:	Students will design and create an online survey using Survey Monkey. They will then interpret and graph their collected data both manually and digitally. They will then summarize their survey findings in a multimedia presentation and share the results with their classmates.						
<b>Driving Question</b>	How does 21st century technology make the world go around?						
<b>Content and Skills Standards</b> to be addressed:	Information and Communication Skills, Thinking and Reasoning Skills, Personal and Workplace Skills, Collecting Data, Reading and Interpreting Graphs, and Representation of Data in the Form of Circle and Bar Graphs,						
<b>21<sup>st</sup> Century Skills</b> to be explicitly taught and assessed (T+A) or that will be encouraged (E) by project work, but not taught or		Collaboration	T+A <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	Productivity and Accountability	T+A <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>
		Presentation	Communication (oral and written)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ICT Literacy	<input checked="" type="checkbox"/>
Other: Critical Thinking/Problem Solving			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Leadership and Responsibility	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<b>Group:</b>		Plan, create, and present an age appropriate multimedia presentation that summarizes the r		<b>Presentation Audience:</b>	
<b>Culminating Products &amp; Performances</b>		<b>Individual:</b>		Each student will create a frequency table, bar graph, and circle graph to represent the data they collected in their survey. They will also complete a self evaluation form and group evaluation form.		<input checked="" type="checkbox"/> Class <input checked="" type="checkbox"/> School <input type="checkbox"/> Community <input type="checkbox"/> Experts <input type="checkbox"/> Web <input type="checkbox"/> Other: _____	

## PROJECT OVERVIEW PART 2: DESIGN

**“Grabber”** to launch inquiry & generate interest:

We will be having a speaker from a leading marketing firm come in and explain to the students how technology is used to gather information about their personal preferences (likes and dislikes), purchasing history, and purchasing power. The speaker will also illustrate how corporations use this information.

Assessments	Formative Assessments (Checkpoints During Project)	Quizzes/Tests	<input checked="" type="checkbox"/>	Practice Presentations	<input checked="" type="checkbox"/>
		Journal/Learning Log	<input type="checkbox"/>	Notes	<input type="checkbox"/>
	Preliminary Plans/Outlines/Prototypes	<input type="checkbox"/>	Checklists		<input checked="" type="checkbox"/>
	Rough Drafts	<input checked="" type="checkbox"/>	Concept Maps		<input type="checkbox"/>
	Online Tests/Exams	<input type="checkbox"/>	Other:		<input type="checkbox"/>
	Summative Assessments (End of Project)	Written Product(s), with rubric:	<input type="checkbox"/>	Other Product(s) or Performance(s), with rubric:	<input type="checkbox"/>
		Oral Presentation, with rubric	<input checked="" type="checkbox"/>	Peer Evaluation	<input checked="" type="checkbox"/>
		Multiple Choice/Short Answer Test	<input type="checkbox"/>	Self-Evaluation	<input checked="" type="checkbox"/>
		Essay Test	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Debriefing Methods	<i>(Individual, Group, and/or Whole Class)</i>	Journal/Learning Log	<input type="checkbox"/>	Focus Group	<input type="checkbox"/>
		Whole-Class Discussion	<input checked="" type="checkbox"/>	Fishbowl Discussion	<input type="checkbox"/>
		Survey	<input checked="" type="checkbox"/>	Other:	<input type="checkbox"/>
Resources Needed	On-site people, facilities:		Mathematics Teacher, Technology Teacher, and Language Arts Teacher		
	Equipment:		Computers, Internet Access, Thumb Drives, Calculators,		
	Materials:		Drawing Paper, Markers, Colored Pencils, Rulers, Protractors, Graphing Paper		
Community resources:		Capital District Marketing Firm			

# PROJECT TEACHING AND LEARNING GUIDE

**Project:** Information Makes the World Go Around

**Course/Semester:** Third Quarter

**Knowledge and Skills Needed by Students**  
to successfully complete culminating products and performances, and do well on summative assessments

**Scaffolding / Materials / Lessons to be Provided**  
by the project teacher, other teachers, experts, mentors, community members

Collecting Data

- 6.S.1 Understand Sampling
- 6.S.2 Construct Frequency
- 7.S.1 Identify and Collect
- 7. S.9 Determine the Validity

Read and Interpret Graphs

- 7.S.6 Read and Interpret Data Represented Graphically

Choosing Appropriate Graphs

- 6.S.4 Determine and Justify the Most Appropriate Graph to Display a Given Set of Data
- 7.S.7 Identify Misleading Graphs

Circle Graphs

- 7.M.8 Draw Central Angles Using a Protractor
- 7.S.2 Display Data Using a Circle Graph
- 7.S.6 Read and Interpret Data in a Circle Graph

Thinking and Reasoning Skills

- Students collaborate with peers and other resources to investigate information and develop solutions or products for various audiences.

Information and Communication Skills

- Students will access a variety of media tools to create both an oral and visual presentation.

Personal and Workplace Skills

- Students focus on a project goal and with teacher guidance select a plan of action and complete the project.

# PROJECT CALENDAR

**Project:** Information Makes the World Go Around

**Start Date:** Third Quarter

M O N D A Y

T U E S D A Y

W E D N E S D A Y

T H U R S D A Y

F R I D A Y

## PROJECT WEEK ONE

Collecting Data Lesson	Speaker: Marketing Firm	Introduction to Survey Monkey	Student Work Day	Student Work Day
6.S.1 Understand Sampling 6.S.2 Construct Frequency Tables 7.S.1 Identify and Collect Data 7. S.9 Determine the Validity of Sampling Methods	What is a survey? Why do we use surveys? What is the data gathered from surveys used for? How do you create a survey?	Illustrate via the Smart Board how to setup an account and create a survey the Survey Monkey site.	Students will be placed into teams of four and will decide the topic of their survey. Students will create ten survey questions to be answered by the seventh grade students.	Students will create a survey on Survey Monkey using the ten questions they wrote the previous day in class. The school district's Information Systems Director will place links to the student's surveys on the district web site.

## PROJECT WEEK TWO

Student Work Day	Work Day / Class Discussion	Bar Graph Review Lesson	Circle Graph Lesson	Student Work Day
Students will complete all of the other teams online surveys, including their own.	Students will download their team's survey results from the Survey Monkey site.  As a class we will discuss the data the students collected. Were there any surprises?	Determine and justify if a bar graph is or isn't an appropriate method for displaying the data you collected in your survey.  Convert raw data from your survey into a hand drawn bar graph.	What is a circle graph and why is it used?  7.M.8 Draw Central Angles Using a Protractor 7.S.2 Display Data Using a Circle Graph 7.S.6 Read and Interpret Data in a Circle Graph	Determine and justify if a circle graph is or isn't an appropriate method for displaying the data you collected in your survey.  Convert raw data from your survey into a hand drawn circle graph.

## PROJECT WEEK THREE

Computer Lab Day	Computer Lab Day	Computer Lab Day	Student Work Day	Presenterator Day
Students will use the Microsoft excel program to create a circle and bar graph to graphically represent a set of their collected survey data.	Student groups will access a variety of media tools to create both an oral and visual presentation that effectively summarizes their survey findings.	Student groups will continue to access a variety of media tools to create both an oral and visual presentation that effectively summarizes their survey findings.	Student groups will spend the class period practicing their presentations.  Each group will pair up with another group and critique each others presentations.	Each student group will be given ten minutes to present their final multi-media presentation.

Presentation	Below Standard	At Standard	Above Standard
	Knowledge → Comprehension	Application → Analysis	Evaluation → Synthesis
Physical Attributes	<ul style="list-style-type: none"> <li>• Student does not dress appropriately.</li> <li>• Student does not maintain proper body language.</li> <li>• Student does not maintain eye contact with audience</li> <li>• Student fidgets, hides behind objects, and plays with objects, etc.</li> <li>• Student does not face audience.</li> </ul>	<ul style="list-style-type: none"> <li>• Student dresses appropriately for the presentation.</li> <li>• Student maintains proper body language.</li> <li>• Student maintains eye contact with audience</li> <li>• Student refrains from fidgeting, hiding behind objects, playing with objects, etc.</li> <li>• Student faces audience.</li> </ul>	<ul style="list-style-type: none"> <li>• In addition to the At Standard criteria:</li> <li>• Student dresses to enhance the purpose of the presentation.</li> <li>• Student uses body language to enhance the purpose of the presentation.</li> <li>• Student uses physical space and movements to enhance the purpose of the presentation.</li> </ul>
Oral & Verbal Skills	<ul style="list-style-type: none"> <li>• Student uses oral fillers (uh, oh, etc.)</li> <li>• Student pronounces words incorrectly.</li> <li>• Student does not speak loudly and clearly.</li> <li>• Student uses tone and pace that obscures communication.</li> <li>• Text contains errors.</li> <li>• Student reads from notes.</li> </ul>	<ul style="list-style-type: none"> <li>• Student uses minimum of oral fillers (uh, oh, etc.)</li> <li>• Student pronounces words correctly and in Standard English.</li> <li>• Student speaks loudly and clearly.</li> <li>• Student speaks at a pace and in a tone that allows clear communication to the audience.</li> <li>• Text displayed during the presentation is free of spelling, usage or mechanical errors.</li> <li>• Student possesses notes but does not read from them.</li> </ul>	<ul style="list-style-type: none"> <li>• In addition to the At Standard criteria:</li> <li>• Student modifies pronunciation of words to enhance presentation.</li> <li>• Student modulates volume and tone to enhance presentation.</li> <li>• Student modulates pace to enhance presentation.</li> <li>• Student uses slang, jargon or technical language to enhance presentation.</li> <li>• Student speaks from memory and makes only passing reference to notes or cards.</li> </ul>
Organization & Structure	<ul style="list-style-type: none"> <li>• Student does not begin and end on time.</li> <li>• Student does not provide preview/review.</li> <li>• Student does not provide clear and definable opening and closing.</li> <li>• Student does not have all required materials ready.</li> <li>• Student has not practiced presentation.</li> <li>• Student does not demonstrate flexibility.</li> </ul>	<ul style="list-style-type: none"> <li>• Student begins and ends on time.</li> <li>• Student provides preview and review of main ideas.</li> <li>• Student provides clear and definable opening and closing.</li> <li>• Student has all required materials ready for use.</li> <li>• Student has practiced order of presentation.</li> <li>• Student demonstrates flexibility in the face of technical or contextual problems.</li> </ul>	<ul style="list-style-type: none"> <li>• In addition to At Standard criteria:</li> <li>• Student provides written notes, brochures, overviews, etc.</li> <li>• Student creates an opening that is engaging (provides a hook for audience) and a closing that re-enforces key understandings.</li> <li>• Student demonstrates planning for technical and contextual problems.</li> </ul>
Technical Attributes	<ul style="list-style-type: none"> <li>• Student use of display boards, presentation software, websites, audio, video, etc., distract audience from the content and purpose of presentation.</li> <li>• Student does not demonstrate care in creation, including editing, proofreading, finishing.</li> </ul>	<ul style="list-style-type: none"> <li>• Student use of display boards, presentation software, websites, audio, video, etc. does not distract audience from the content and purpose of the presentation.</li> <li>• Student demonstrates care in creation, including editing, proofreading, finishing.</li> </ul>	<ul style="list-style-type: none"> <li>• In addition to At Standard criteria:</li> <li>• Student uses advanced features and utilities of presentation software, creates web-enabled presentations, creates non-linear presentation , and uses audio, video, movie maker programs, webpage design software, etc. to enhance the purpose of the presentation.</li> <li>• Student uses advanced features of word processing software, i.e. outline, table of contents, index feature, draw tool, headers and footers. hyperlinks to other file formats to enhance presentation.</li> </ul>
Response to Audience	<ul style="list-style-type: none"> <li>• Student does not provide appropriate oral responses to audience questions, concerns, comments.</li> <li>• Student does not adapt the presentation based on questions, concerns or comments from audience.</li> </ul>	<ul style="list-style-type: none"> <li>• Student provides appropriate oral responses to audience questions, concerns, comments.</li> <li>• Student makes minor modifications to the presentation based on questions, concerns or comments from audience.</li> </ul>	<ul style="list-style-type: none"> <li>• In addition to At Standard criteria:</li> <li>• Student incorporates audience questions, concerns and concerns into the presentation.</li> <li>• Student displays willingness and ability to move away from the script/plan and modify presentation based on audience response.</li> </ul>

## CLASS DISCUSSION EVALUATION

Name \_\_\_\_\_  
Date \_\_\_\_\_  
Period \_\_\_\_\_  
Discussion Topic \_\_\_\_\_

Reflecting upon my participation in this discussion, I participated positively in the discussion by

- \_\_\_\_\_ using active listening skills.
- \_\_\_\_\_ asking clarifying questions.
- \_\_\_\_\_ stating my opinion on the topic.
- \_\_\_\_\_ using evidence to support my position.
- \_\_\_\_\_ making relevant comments.
- \_\_\_\_\_ developing analogies.
- \_\_\_\_\_ evaluating the merit of others' opinions.
- \_\_\_\_\_ recognizing when another person makes an irrelevant comment.
- \_\_\_\_\_ pointing out contradictions in another's statement.
- \_\_\_\_\_ summarizing my thinking as well as my perception of the opinions of others.
- \_\_\_\_\_

Reflecting upon my participation in this discussion, I detracted from the discussion by

- \_\_\_\_\_ not paying attention to others.
- \_\_\_\_\_ distracting others.
- \_\_\_\_\_ interrupting the speaker.
- \_\_\_\_\_ making an irrelevant comment.
- \_\_\_\_\_ monopolizing the discussion.
- \_\_\_\_\_ personally attacking another.
- \_\_\_\_\_

As I reflect on my participation in this discussion, I contributed to a productive discussion by \_\_\_\_\_

\_\_\_\_\_

To improve my participation in the next discussion, I will \_\_\_\_\_

\_\_\_\_\_

Overall I would rate my participation in this discussion as \_\_\_\_\_

because \_\_\_\_\_

\_\_\_\_\_

## Self Assessment

Name:

Presentation Group:

Please check the following items you feel you successfully completed with your presentation.

Team Work:

\_\_\_\_\_ I collaborated with my team members.

\_\_\_\_\_ I reviewed deadlines and worked with the team to complete necessary work for the presentation.

\_\_\_\_\_ I was supportive of other team members.

Content:

\_\_\_\_\_ I gave valuable information on my topic.

\_\_\_\_\_ I used credible sources.

\_\_\_\_\_ I cited my sources correctly on the research log.

Organization:

\_\_\_\_\_ I begin work promptly.

\_\_\_\_\_ I organized ideas in a meaningful way.

\_\_\_\_\_ I stayed on task and met deadlines needed to complete work for the presentation.

Complete the following statements:

My strengths on this project were:

My challenges on this project were:

Changes I would make for the next project I will do are: