

PROJECT OVERVIEW

Name of Project:	Making Money!!!!	Duration: 2 weeks
Subject/Course: Mathematics	Teacher(s): Astalos	Grade Level: 8th
Other subject areas to be included, if any:	Language Arts	

Project Idea Summary of the issue, challenge, investigation, scenario, or problem:	<p>Student groups will become business owners, required to create, stock and price their stores within the budget they are given. The goal of the ownership groups is to make money. After the groups have created their business each student will be given a budget and allowed to shop all the created shops.</p> <p>Interesting concept for the learning. It appears that in the 1st five days, students are working in their business ideas based on prior Math knowledge. The 6th lesson is the first time that students are learning new concepts. I'm wondering if some of the key instruction happens just prior to the start of this project. If that is the case, then this pbl unit actually started sooner.</p>
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Driving Question	We see business owners as these rich people who buy whatever they want, whenever they want but how do they get there? What do business have to do to allow their owners to do that? Do they even make money when they put products on sale in their store?
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Content and Skills Standards to be addressed:	<p>N.MR.08.07 Understand percent increase and percent decrease in both sum and product form, e.g., 3% increase of a quantity x is $x + .03x = 1.03x$.</p> <p>N.MR.08.08 Solve problems involving percent increases and decreases.</p> <p>N.FL.08.09 Solve problems involving compounded interest or multiple discounts.</p> <p>N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile</p>
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		T+A	E			T+A	E
21st Century Skills to be explicitly <i>taught and assessed</i> (T+A) or that will be <i>encouraged</i> (E) by project work, but not taught or assessed:	Collaboration	X		Other:		X	
	Presentation	X					
	Critical Thinking:	X					

			Presentation Audience:	
Culminating Products and Performances	Group:	Groups will be given a budget that will be used to create stock and advertise a business of their choice. The goal of their business will be for the other students to want to buy items from them. The groups will need to create some form of advertisement for their business	Class:	X
			School:	
			Community:	

	Individual:	After the businesses have been created each student will need to keep a record of what they purchased and how they figured out the final prices that they would have paid for each item. Students will also complete regular assignments for chapter to monitor their progress	Experts:	
			Web:	X
			Other: Grade Level	

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Entry event to launch inquiry, engage students:	Show students a slideshow or video with examples of business' that are both flourishing and floundering. After the video show is over take student input – lead the discussion towards what the students have seen or experienced in their lives. The students will be required to take email or text the pictures of both a positive and negative business.				
Assessments	Formative Assessments (During Project)	Quizzes/Tests		Practice Presentations	
		Journal/Learning Log		Notes	
		Preliminary Plans/Outlines/Prototypes	X	Checklists	
		Rough Drafts	X	Concept Maps	
		Online Tests/Exams		Other:	
	Summative Assessments (End of Project)	Written Product(s), with rubric: _____	X	Other Product(s) or Performance(s), with rubric: _____	
		Oral Presentation, with rubric		Peer Evaluation	X
		Multiple Choice/Short Answer Test	X	Self-Evaluation	X
		Essay Test		Other:	

Resources Needed	On-site people, facilities:	
	Equipment:	Computer Lab
	Materials:	
	Community resources:	What local businesses could mentor teams regarding the students' business plans? These same businesses could return to listen and/or judge the presentations. Parents could be a valuable resource for this as well.

Reflection Methods	(Individual, Group, and/or Whole Class)	Journal/Learning Log		Focus Group	
		Whole-Class Discussion	X	Fishbowl Discussion	X
		Survey		Other:	

PROJECT TEACHING AND LEARNING GUIDE

Project: Making Money!!!		Course/Semester: Fall 2011	
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	
Converting between decimals, fractions and percents	→	Skills assessment prior to start of chapter and review of that assessment	
Find percent increase or decrease of a number	→	Small group instruction after groups have decided on products & business types / straight forward problems only – no word problems	
Solve applied problems involving percent increase and decrease	→	Small group instruction – word problems – show connection to business – pricing and sales	
Computing multiple discounts and compound interest	→	To drive sales – students will be encouraged to offer special deals – membership cards and the like.	
If English is included, what standards are being addressed and what skills would be developed?	→		
	→		
	→		

PROJECT CALENDAR

Project: Making Money!!!

Start Date: 11/7

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				
<p>Entry Event – Students will provide pictures of a positive and negative business they know of. A PowerPoint based story on a business where the students are making the decisions that lead to new decisions that need to be made.</p>	No School	<p>Team building Activities/Explaining the project/developing a team and contracts. Developing a business plan – “what are we gonna sell?” “How many different things are we gonna sell?”</p>	<p>Continue developing a business begin thinking about advertising (aka posters/videos/flyers / -- small group on percent change ties in with 3-1 homework (N.MR.08.08)</p>	<p>Developing a business – continue advertising and purchasing of items within the budget given – small groups for product and sum methods 3-2 (N.MR.08.07)</p>
PROJECT WEEK TWO				
<p>Developing a business / – processing pricing of items – using percent increase to come up with selling prices / using sum and product methods.</p>	<p>Class work on 3-3 (applied problems) / 3-4 (compound interest/ multiple discounts) (N.MR.08.07, N.MR.08.09)</p>	<p>Developing a business / small group on percent change refresher (N.MR.08.08)</p>	<p>Finalizing / practice sales / budgets to buy with</p>	<p>Shopping at other business within budgets given</p>
PROJECT WEEK THREE				
<p>Assessment for this chapter – MEAP Style assessment</p>	<p>Fish Bowling on projects – 2 groups discussion questions about positive and negative of project</p>	No School	No School	No School
PROJECT WEEK FOUR				
<p>Black Friday Assignment – what is the percent decrease or the new number (N.MR.08.07, N.MR.08.08)</p>	<p>Which is the best buy? – ration units (mph, dollars per pound, population density (N.MR.08.11) – what stores did the best – looking for mathematical solutions</p>	<p>Which is the best buy? – ration units (mph, dollars per pound, population density (N.MR.08.11) – comparing sizes of the same item for value.</p>		

<p style="text-align: center;">Lesson Design:</p> <p style="text-align: center;">Careful construction of lessons to remove barriers and provide assess for all students.</p>	<p style="text-align: center;">Checkpoints:</p> <p style="text-align: center;">Includes</p>
Team building activities	<ul style="list-style-type: none"> ✓ Multiple ways to represent information ✓ Alternatives to text ✓ Support provided for text comprehension ✓ Flexible technology-based materials, strategies and tools ✓ Multiple ways for students show what they know ✓ Conspicuous supports for learning new strategies ✓ Mechanism for rapid feedback to learners ✓ Active student-centered methods ✓ Choice, Challenge, Novelty ✓ Connected, relevant learning
Students grouped by levels – students are pre-assessed to the start of the project. Levels are white (lacking basic skills required for chapter success, red moderate basic skills required for chapter success, blue has required skills for chapter success. Students will be grouped with a blue, red and white whenever possible. These groups will be the business.	
Small group instruction. Teaching will happen in to each business -- 3 to 4 students.	
Students will display knowledge through the business pricing and budgeting, through their advertising, through their shopping budget and through chapter materials 3-1, 3-2, 3-3, 3-4 and post-test.	
Two remedial sessions are scheduled throughout the project	

Store Advertisements Rubric

Store Name: _____

Owners: _____

Score Levels	Advertisement	Conventions	Mathematics	Cooperation	Organization	Cool Factor
4	<ul style="list-style-type: none"> ▪ Is well thought out and supports the solution to the challenge or question ▪ Reflects application of critical thinking ▪ Has clear goal that is related to the topic ▪ Is pulled from a variety of sources ▪ Is accurate 	<ul style="list-style-type: none"> ▪ No spelling, grammatical, or punctuation errors ▪ High-level use of vocabulary and word choice 	<ul style="list-style-type: none"> ▪ Covers topic in-depth with details and examples. Subject knowledge is excellent. 	<ul style="list-style-type: none"> ▪ The workload is divided and shared equally by all team members. 	<ul style="list-style-type: none"> ▪ Information is clearly focused in an organized and thoughtful manner. ▪ Information is constructed in a logical pattern to support the solution. 	<ul style="list-style-type: none"> ▪ Multimedia is used to clarify and illustrate the main points. ▪ Format enhances the content. ▪ Presentation captures audience attention. ▪ Presentation is organized and well laid out.
3	<ul style="list-style-type: none"> ▪ Is well thought out and supports the solution ▪ Has application of critical thinking that is apparent ▪ Has clear goal that is related to the topic ▪ Is pulled from several sources ▪ Is accurate 	<ul style="list-style-type: none"> ▪ Few (1 to 3) spelling, grammatical, or punctuation errors ▪ Good use of vocabulary and word choice 	<ul style="list-style-type: none"> ▪ Includes essential knowledge about the topic. Subject knowledge appears to be good. 	<ul style="list-style-type: none"> ▪ The workload is divided and shared fairly by all team members, though workloads may vary from person to person. 	<ul style="list-style-type: none"> ▪ Information supports the solution to the challenge or question. 	<ul style="list-style-type: none"> ▪ Multimedia is used to illustrate the main points. ▪ Format is appropriate for the content. ▪ Presentation captures audience attention. ▪ Presentation is well organized.
2	<ul style="list-style-type: none"> ▪ Supports the solution ▪ Has application of critical thinking that is apparent ▪ Has no clear goal ▪ Is pulled from a limited number of sources ▪ Has some factual errors or inconsistencies 	<ul style="list-style-type: none"> ▪ Minimal (3 to 5) spelling, grammatical, or punctuation errors ▪ Low-level use of vocabulary and word choice 	<ul style="list-style-type: none"> ▪ Includes essential information about the topic but there are 1-2 factual errors. 	<ul style="list-style-type: none"> ▪ The workload was divided, but one person in the group is viewed as not doing his/her fair share of the work. 	<ul style="list-style-type: none"> ▪ Project has a focus but might stray from it at times. ▪ Information appears to have a pattern, but the pattern is not consistently carried out in the project. ▪ Information loosely supports the solution. 	<ul style="list-style-type: none"> ▪ Multimedia loosely illustrates the main points. ▪ Format does not suit the content. ▪ Presentation does not capture audience attention. ▪ Presentation is loosely organized.
1	<ul style="list-style-type: none"> ▪ Provides inconsistent information for solution ▪ Has no apparent application of critical thinking ▪ Has no clear goal ▪ I pulled from few sources ▪ Has significant factual errors, misconceptions, or misinterpretations 	<ul style="list-style-type: none"> ▪ More than 5 spelling, grammatical, or punctuation errors ▪ Poor use of vocabulary and word choice 	<ul style="list-style-type: none"> ▪ Content is minimal OR there are several factual errors. 	<ul style="list-style-type: none"> ▪ The workload was not divided OR several people in the group are viewed as not doing their fair share of the work. 	<ul style="list-style-type: none"> ▪ Content is unfocused and haphazard. ▪ Information does not support the solution to the challenge or question. ▪ Information has no apparent pattern. 	<ul style="list-style-type: none"> ▪ Presentation appears sloppy and/or unfinished. ▪ Multimedia is overused or underused. ▪ Format does not enhance content. ▪ Presentation has no clear organization.