PROJECT OVERVIEW

Name of Project:	**Survivor!**	**Duration: 3 weeks**
Subject/Course: Science, Social Studies, Math	**Teacher(s):Bachelder, Fritz, Cory, Chandonnet**	**Grade Level:7**
Other subject areas to be included, if any:	**ELA, technology**	

Project Idea Summary of the issue, challenge, investigation, scenario, or problem:	A pandemic of a deadly virus has occurred, forcing people from their homes and the entire Western Hemisphere. They are required to relocate to the Eastern Hemisphere and begin a new civilization. Students will determine the best location based on the climate patterns, biomes and their abilities to adapt and/or modify their environment.
Driving Question	How can we determine what is needed for a civilization to survive?
Content and Skills Standards to be addressed:	Science- E.ES.07.71, E.ST.07.72, E.ES.07.73 Social Studies-7-W1.1.1, 7-W1.1.2, W1.2.1, W2.1.3 Math-A.PA.07.04, A.RP.07.10, N.FL.07.09, D.RE.07.01

		T+A	E		T+A	E
21st Century Skills to be explicitly *taught and assessed* (T+A) or that will be *encouraged* (E) by project work, but not taught or assessed:	Collaboration		x	Other:		
	Presentation	x				
	Critical Thinking:		X			

			Presentation Audience:	
Culminating Products and Performances	**Group:**	Written responses Developed assessment /survey considering variables Oral argument Persuasive multimedia "sales pitch" presentation	Class:	x
			School:	
			Community:	
	Individual:	Journaling Individual Climagraphs utilizing data, scale, plotting and analytical skills. Blog/Forum	Experts:	x
			Web:	x
			Other:	

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Entry event to launch inquiry, engage students:		There has been a catastrophic event in the Western Hemisphere and you must find a new location to live in the Eastern Hemisphere. What factors must you take into account about your new location?				

Assessments	**Formative Assessments (During Project)**	Quizzes/Tests	X	Practice Presentations	**X**
		Journal/Learning Log	X	Notes	**X**
		Preliminary Plans/Outlines/Prototypes		Checklists	
		Rough Drafts		Concept Maps	**X**
		Online Tests/Exams		Other:	
	Summative Assessments (End of Project)	Written Product(s), with rubric: _____	X	Other Product(s) or Performance(s), with rubric: Multimedia/ oral presentation	
		Oral Presentation, with rubric	X	Peer Evaluation	
		Multiple Choice/Short Answer Test	x	Self-Evaluation	
		Essay Test		Other:	

Resources Needed	On-site people, facilities:	Instructor, Librarian, Tech-support, lab
	Equipment:	Portable lab, doc camera, digital cameras,
	Materials:	Text, online resources, Moodle, construction, video clip
	Community resources:	MSU extension office, WZZM meteorologist, college faculty

Reflection Methods	**(Individual, Group, and/or Whole Class)**	Journal/Learning Log	X	Focus Group	
		Whole-Class Discussion	X	Fishbowl Discussion	
		Survey	X	Other: Give one, get one, other discussion strat	X

PROJECT TEACHING AND LEARNING GUIDE

Project: Survivor!	Course/Semester: 1st semester

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
Students can demonstrate the relational differences between weather and climate.	➜	Venn diagram
Student will classify areas of the earth according to their climates and biomes.	➜	Google Earth- picture predictions and realizations
Students analyze long term effects of climate on human patterns and economic decisions and construct possible future patterns relating to climate change.	➜	HOME, research migratory & climate patterns utilizing GIS images, concept map future pattern predictions to be used as support in final project.
Students will distinguish adequate locations for civilizations while examining the relationship between human choice and climate (adaptation and modification of our environment).	➜	Human/species needs evaluations to be used as support in final project Journals on adaptation and modification of the environment
Students will examine historic examples of the rise and fall of civilizations, evaluating the reasons for their success and failure relating to climate & biome.	➜	Student graphic organizer jig-sawed from reading selections. Brief oral presentation in cooperation with the jig-saw.
Students will justify their relocation selection and appropriately react to critics of their plan.	➜	Outline of location selection, arguments and evidence for their selection and responses to potential critics.
Students will acquire, construct and analyze data to address issues within their investigations of civilizations and climate.	➜	Math notes & practice on representing, plotting and scaling data. Science and Social Studies reinforcement.

PROJECT CALENDAR

Project: Survivor		**Start Date:**		

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
PROJECT WEEK ONE				
Entry Event: Viral outbreak Sci: discuss viral outbreaks, video clip SS: RAFT: speech to community-present in class Team Assignments and Expectations, contracts	-Science: Lesson/notes: Climate v. Weather Venn -SS: Explain project details, rubrics, & timeline And begin climate region jigsaw internet research http://www.youtube.com/watch?v=95TtXYjOEv4&feature=related http://www.youtube.com/watch?v=wUiwtVSkUwQ&feature=related http://www.youtube.com/watch?v=E7DLLxrrBV8&feature=related -Math: Lesson: graphing setup & plotting data	-Science: Reinforcement of Climate v. Weather Checkpoint: short answer summative assessment. Lesson: Atmospheric and oceanic affects on weather-YouTube -SS: Climate regions Teams: jigaw presentations -Math: Set up climagraphs and research data	SS: Checkpoint: Climate location & description reinforcement activity Group processing -research 3 locations and present initial rationales in a table. Groups: Student Developed Human Needs Checklist and groups analyze locations against checklist Science: Lab on atmospheric & oceaninc affects of weather.	SS: TEAMS: Prepare counter arguments for alternative locations in relationship to Human Needs Assessments, predict population distribution Math: Work on plotting data of two climate regions. Science: Checkpoint: quiz

PROJECT WEEK TWO				
SS: Population and Migratory patterns findings- GIS, Google Earth screen shots, other images for evidence to support argument TEAMS: Concept map current and future pattern predictions Science: Discuss the role of climate/biomes in the satisfaction of needs- watch: Biomes- Extreme Climates : Biome Yarn Lesson and blog entry. http://www.usc.edu/org/cosee-west/glaciers/Biomes_Climate_wStnds.pdf	SS: TEAMS: Group processing- tweak location choices based on new knowledge of human patterns and biomes Science: Continue Biomes activity Math: finish climagraphs	SS: TEAMS: Checkpoint: Prepare outline of Sales Pitch, argument points, counter arguments and organizing evidence. Climate review Science: Use Math climagraphs to make prediction on proximity to water, latitude of location, biome and resources.	SS: Summative assessment on climate basics, descriptions and locations Group Processing- prepare roles and organize presentations	SS: Wrap up project presentation and practice. Science: Summative assessment of E.ES. M.7 GLCEs
PROJECT WEEK THREE				
SS: TEAM meetings with teacher, and practice	**Presentations and evaluation**	**Presentations and evaluations**	HOME Patchwork Journal	HOME Self and Peer assess Project Debrief and collaboration

Lesson Design: Careful construction of lessons to remove barriers and provide assess for all students.	Checkpoints: Includes
Many of the main ideas of lessons will be constructed with knowledge that comes from multiple forms of media- text, visual, audio, and video and is organized in flexible and differentiated ways.	✓ Multiple ways to represent information ✓ Alternatives to text ✓ Support provided for text comprehension
Final project will be flexible in forms of presentation, with two or three options provided, but the freedom to also suggest alternatives.	✓ Flexible technology-based materials, strategies and tools
Student-centered lessons will challenge students to analyze a situation, come to a conclusion and formulate a presentation of those results in a method that works best for them (see above).	✓ Multiple ways for students show what they know ✓ Conspicuous supports for learning new strategies
Students will have access to technology to support their needs in conspicuous ways, utilizing ipod touch and ipad apps, the internet and various 2.0 applications to gather, organize and present information.	✓ Mechanism for rapid feedback to learners ✓ Active student-centered methods
	✓ Choice, Challenge, Novelty
	✓ Connected, relevant learning

Persuasive Writing on Element from Periodic Table that should be used as export to help reduce our National Deficient

Criteria	4	3	2	1
The Claim (Thesis)	Make a claim and explain why your element would be the best one to export and how it would help reduce our National Deficit	Makes a claim but doesn't explain	Claim is buried, confused and/or unclear	Doesn't say what argument or claim is
Reasons in support of the claim (Research-/Rough Draft)	Give clear and accurate reasons to support your claim. (4-6)	Not enough reasons in support of claim, may have overlooked important reasons	Gave 1 or 2 weak reasons that don't support claim and/or irrelevant or confusing reasons	Did not give convincing reasons in support of claim
Introduction	Introduce your element and explain its uses in the economy. (Driving question should be addressed)	Did not discuss element in detail and/or how it would help reduce deficit	Was not clear on how element would be used by other countries, or how we would export it	Did not acknowledge or discuss element, exporting, economy or uses for element
Organization	Writing has a compelling opening (Introduction), three to five informative middle paragraphs and a strong persuasive conclusion.	Writing has a beginning, middle and end. It marches along but doesn't dance.	Writing is organized but sometimes gets off topic.	Writing is aimless and disorganized.
Voice and Tone	It sounds like you care about your argument(s). It shows you know about the element and how it can be used, and how that will add to United States profits.	Tone is okay, but paper could have been written by anyone. Need to tell more about why you believe your element will contribute to the reduction of U.S. debt. Show why you care.	Writing is bland or pretentious. There is either no hint of a real person in it or it sounds like you are a fake.	Writing is too formal or too informal. It sounds like you don't like the topic of the essay.
Word Choice	The words you use are from research and related to the topic. The words should also be striking but natural, varied and vivid. (Do not copy)	Made routine word choices. Did not use correct scientific vocabulary when it should have been used.	The words used are often dull or uninspired or sounds like you are trying too hard to impress.	Uses the same words over and over and over and over. Some words may be confusing to a reader.
Sentence Fluency	Sentences are clear, complete, and of varying lengths.	Well-constructed sentences with little variation	Sentences are sometimes awkward, and/or contain run-ons and fragments.	Many run-ons, fragments and awkward phrasings make essay hard to read.
Conventions	Use correct grammar, spelling, and punctuation.	Generally uses correct conventions. Have a couple of errors that should be fixed.	Enough errors in essay to distract reader	Numerous errors make paper hard to read