

Innoventions for the New Millennium Project

Grade 10

Project Description:

Students will engage in a multicultural and interdisciplinary project that will examine the motivations behind global change and how advances in technology and innovative ideas have influenced the current state of the world. The ***Innoventions for the New Millennium Project*** requires students to identify current global issues and seek solutions for the future through product innoventions.

Please review this document with your group and your parents/guardians. Familiarize yourself with all the requirements for the project components and their due dates. Parent involvement is especially important in helping students with time management, group meetings, and feedback.

Please complete and return the PARENT SIGN-OFF FORM by **Friday, February 3, 2012**.

Good Luck and have fun!

Parent Sign-Off Form

Innoventions for the New Millennium Project

I have reviewed the requirements and due dates of the Innoventions for the New Millennium Project with my student. We both understand the requirements necessary for the attainment of a Proficient or higher assessment rating on this project.

Parent/Guardian Name & Date

Parent/Guardian Signature

Student Name & Date

Student Signature

Innoventions for the New Millennium Project

Grade 10

Project Justification:

This project endeavors to create student awareness of the global impact of inventions on society. Students examine past, present, and possible future effects of inventions on cultures, economics, politics, and global survival. This project explores the potential contributions to our global community through ethical considerations and economic and cultural impacts.

The purpose of the *Innoventions for the New Millennium Project* is to engage students in thinking about the future of our environment through the academic disciplines of mathematics, social studies, science, language arts, foreign language, fine arts, physical education, business and technology. In order to accomplish this endeavor, the project has incorporated the California Frameworks, California State Standards, California Department of Education Challenge Standards, and the I-Poly Standards from each discipline.

Essential Questions: (minimum 350 word answers)

- 1) What is the most effective way you can improve your specific issue making the world a better place?
- 2) Just because you can, should you? What is your biggest consideration when faced with a choice between ethics and technological advancement?
- 3) What is the most important factor that must be considered when creating your innovention?
- 4) What is one prediction you can make about your innoventions impact on the future?

General Learning Outcomes:

- 1) Students will make thematic connections between interdisciplinary areas through a variety of integrated learning activities.
- 2) Students will gain knowledge and appreciation of global cultures through the study and exploration of unresolved problems of the modern world.
- 3) Students will take risks necessary for developing "entrepreneurial spirit".
- 4) Students will design innoventions for the new millennium.
- 5) Students will consider ethical and environmental concerns as they develop their contributions to the global community.
- 6) Students will evaluate global interdependence.
- 7) Students will analyze how the individual's role in society has changed over the last two centuries.
- 8) Students will evaluate how economic concepts apply to modern world problems.
- 9) Students will apply and refine leadership skills.
- 10) Students will critically examine their own values regarding altruism and possible conflicts with contemporary world values.
- 11) Students will apply and refine their technological skills.
- 12) Students will creatively develop potential solutions to global problems.

Time Line and Due Dates:

Return Parent Authorization Form	Friday, February 3, 2012
Global Issues Tradeshow	Thursday, February 9, 2012
Innovention Approval	Thursday-Friday, February 13-14, 2012
Innovention Model & Patent Research	Monday-Tuesday, February 16-17, 2012
Innovention Presentation	February 21-22, 2012
Innovention Model & Patent Report	Friday, March 12, 2012
Frankenstein Proposal	Friday, March 8-9, 2012
Frankenstein Screenplay	Friday, March 22-23, 2012
Marketing Plan Research Presentation	Thursday-Friday, March 29-30, 2012
Marketing Plan	Friday, April 20, 2012
Frankenstein Film Dailies	Friday, April 27, 2012
Frankenstein Film Rough Cut	Friday, May 11, 2012
Frankenstein Film	Friday, May 25, 2012
Binder	Friday, May 25, 2012
Innovention Tradeshow	Wednesday, May 30, 2012

Project Components:

- 1) Global Issue Tradeshow: Students identify a global issue and present their findings in a trade show. Students first research their global issue, identify why it is an issue, and present it in a booth style/tradeshow presentation. Research based explanations/descriptions are a key feature of this component. Assessment is conducted primarily by the History teacher with input from the 10th grade teacher team.
- 2) Innovention Model & Patent Report: Student groups research a current invention that helps remedy their global issue. Based on their research, they write a Patent Report and build a physical model of their innovention. Assessment is conducted by the Science teacher.
- 3) Frankenstein Screenplay: Students use their reading of Frankenstein to collaboratively write a screenplay that either recreates or elaborates on a scene from Mary Shelley's Frankenstein or creates a scene that was in the book but not shown in the movie. Elements include idea and storyboard pitches, as well as a screenplay. Assessment, using the component contract, is conducted by the English teacher.
- 4) Marketing Plan: Student groups provide a marketing plan for their innovention which includes target population and cost projections. Assessment, using the component contract, is conducted by the Math teacher.
- 5) Frankenstein Film: Student groups film (videotape) their Frankenstein Screenplay. Preparation for the formal production will include camera use, film editing, and costumes. Assessment is conducted by all teachers. Teachers meet as a team to determine total assessment.
- 6) Innoventions Tradeshow: Student groups display and market their innoventions in the culminating tradeshow exhibit. (The exhibit will incorporate all aspects of the project.) Assessment is conducted individually by all teachers involved in any project component. Teachers meet as a team to determine total assessment.

turnitin.com Class IDs and Passwords

All students need to logon at <http://www.turnitin.com> in order to submit all written work electronically. Turnitin.com stores the papers for future reference, revisions, and also checks them for plagiarism. To login, students need a valid and current email address.

Materials Lists:

The following is a list of necessary items to complete this project:

General - Group

3" Binder with Tabs
USB flash memory device

Dramatic History Script Writing/Presentation

Costumes, music, sound effects, etc
Mini DV tape

Innovention Design Proposal

HB drawing pencil
Colored pencils (optional)

Innoventions Tradeshow

Project Display Board

Innoventions Model

Materials to build model

EVALUATION & ASSESSMENT

Projects will be evaluated by the instructors and given a rating of Exemplary (E), Approaching Exemplary (AE), Proficient (P), Approaching Proficient (AP), Credit (CR), or No Credit (NC). The evaluation process will take the following factors into account: degree of completion, adherence to contract requirements, neatness, quality, written responses, creativity/originality, aesthetics, group organization, and effort. Each student is required to document her/his contributions to the group project. Project assessments are a part of each interdisciplinary subject and will be assessed as follows:

<u>Project Assessment (all components - group)</u>		<u>Individual Class Work</u>
LANGUAGE ARTS	50%	50%
SOCIAL SCIENCE	50%	50%
SCIENCE	50%	50%
MATHEMATICS	50%	50%

An "NC" in any project component or classroom assessment will result in an NC for the Semester.

Binder <u>Due: Friday, May 28, 2012</u>	Assesment
--	-----------

House: **N E S W** **Issue/Innovention:** _____
Members: _____

Must complete all specifications listed below on time to qualify for Proficiency

	Description:			
	A binder containing all drafts, revisions, and final components to document the Innovention Project			
	Preparation Section: Must be complete for assessment	Self	Teach	Rev
	Group needs a 3" binder divided into sections for each component. Throughout the semester, revisions and returned project work needs to be placed in the binder.			
	Content:			
	<p style="text-align: center;">Cover Page:</p> <p>Includes project, global issue, innovention name, company, and team member names.</p> <p style="text-align: center;">Components:</p> <p>Global Issue Tradeshow- Presentation pictures & research. Innovention Model and Patent Report -report, research, and photograph of model. Frankenstein Screenplay/Film- photographs of cast in costume and sets, screenplays, storyboards, call sheet, production requirements and responsibilities. Marketing plan- report, research, and photograph of billboard. Tradeshow – pictures of group members and booth. Also include any handouts used at the tradeshow.</p> <p style="text-align: center;">Essential Questions:</p> <p>EQ #4 "What is one prediction you can make about your innoventions impact on the future?" Minimum 350 words turned in to your house teacher's turnitin.com All individual Essential Questions must be arranged in the binder, and organized alphabetically in sequence by group member.</p>			
	Technical:			
	Dividers with tabs identifying each section by component and individual All assessment contracts, drafts, and research.			

Global Issue Tradeshow
Due: Thursday, February 9, 2012

Assesment

House: N E S W

Issue/Innovention: _____

Members: _____

Must complete all specifications listed below on time to qualify for Proficiency

	Self	Teach	Rev
Description: A global issue is researched and presented in a tradeshow format.			
Preparation Section: Must be complete for assessment 2 piece of highlighted or notated research per group member detailing your global issue. Research must be from Cal Poly's Online Database system			
Content: Trade Show presentation of a Global Issue.			
Global Issue What is your global issue? Explained in detail based on research Why is your global issue an issue? Explained in detail Groups will narrow down their topic to a specific issue from the following list: Biodiversity Poverty Pollution Climate Change Natural Disasters Energy Health Security			
Independent Paper Each student submits to Mr. Daly's turnitin.com EQ #1 "What is the most effective way you can improve your specific issue making the world a better place?" (Paper version put in binder, not submitted to teacher)			
Technical:			
Booth style presentation One display board (36" x 8" tri-fold when measured flat) dedicated to the issue explaining what it is and why it is an issue. Research available at booth in binder by student name Photos taken of booth, board, and group to be placed in binder Presenters and board are neat, informative, accurate, and professional			

Frankenstein Screenplay <u>Final Draft Due: Friday, March 26, 2012</u>	Assesment
---	-----------

House: N E S W **Issue/Innovention:** _____

Members: _____

Must complete all specifications listed below to qualify for Proficiency

	Description: Script and Storyboard that recreates, adapts, or elaborates on a scene from the book <i>Frankentsein</i>			
	Preparation Section: Must be complete for assessment	Self	Teach	Rev
	2 copies of a one-page treatment by each group member outlining an idea for the group's film due March 18-19 A Group Pitch approved by the "studio producers" March 22-23			
	Content:			
	Script must: <ul style="list-style-type: none"> • Be able to stand alone with a clear purpose concerning the overall plot. • Reveal more and deepen the audience's understanding of the characters' personalities and relationships. • Remain true to the underlying drama and spirit of the original novel. 			
	style="text-align: center;"> Independent Paper Each student submits to Mr. Hogan's turnitin.com EQ #2 "What is the most important factor that must be considered when creating your innovention?" (Paper version put in binder, not submitted to teacher)			
	Technical:			
	Must include the Screenplay Checklist Script completed/turned in on time Using appropriate industry format Demonstrating appropriate grammar, spelling, and mechanics Neatly assembled.			

<p>Model and Patent Report <u>Final Draft Due: Friday, March 2, 2012</u></p>	<p>Assesment</p>
---	------------------

House: N E S W Issue/Innovention: _____

Members: _____

Must complete all specifications listed below to qualify for Proficiency

Description:			
A patent report, in conjunction with technical drawings, explains scientific principles for innovention. Drawings are also plans for construction of a model			
Preparation Section: Must be complete for assessment			
Innovention approval - February 13-14, Individual- Minimum of 2 unique/different research articles on innovention highlighted or notated with individual's name and source indicated Monday-Tuesday, February 16-17 Innovention Presentation- Group presents parts of invention, sequence of events and the scientific principles in how parts work including technical drawing(s) of Innovention showing labeled internal parts and overall system, with actual dimensions indicated - February 21-22			
Innovention Design Patent Report	Self	Teach	Rev
Content:			
Name and brief description of innovention and it's function Summary of global issue and how innovention addresses it Explain scientific basis of how it works , including the sequence of events and the scientific principles involved in the function of each part Identify benefits, any problems, ethical issues, or deficits of innovention Bibliography Patent Application Technical drawing(s) with all parts labeled and actual dimensions			
Physical Model			
Shows how invention works including all internal parts All parts labeled Corresponds to technical drawing Built to scale-maximum dimensions 3' x 2' x 2			

	Technical:			
	<p>Minimum 1,750 words and in report folder Organized, grammar and punctuation Bibliography includes research articles with complete citations All are to participate equally on both the report and model Research turned in by student name-minimum 2 articles per person Hard copy turned in and electronic version turned in to turnitin.com Submit group meeting logs & document individual contributions with drafts and or pictures</p>			
	<p style="text-align: center;">Independent Paper</p> <p>Each student submits to Mrs. Matthews turnitin.com EQ #3 “What is the most important factor that must be considered when creating your innovention?” (Paper version put in binder, not submitted to teacher)</p>			

Marketing Plan <u>Final Draft Due: Friday, April 20, 2012</u>	Assesment
--	-----------

House: N E S W **Issue/Innovention:** _____

Members: _____

Must complete all specifications listed below on time to qualify for Proficiency

Description: A marketing plan is developed on the innovention to promote the success of the company.			
Preparation Section: Must be complete for assessment	Self	Teach	Rev
Presentation of complete materials list for innovention with prices and quantities Thursday-Friday, March 29-30 Individually find minimum of 2 pieces of research and share during presentation			
Essay Content:			
<p style="text-align: center;">Target Market: (minimum 350 words)</p> <p>Explain who will buy your innovention. Include such things as corporate/individual/ family, age, gender, income level, places they live, etc. Why do they need your innovention? Competition: Are there any existing products similar to yours that would compete in the stores?</p> <p style="text-align: center;">Delivery System: (minimum 700 words)</p> <p>Explain where your innovention will be sold. How will your company make the public aware of your product. Be specific How will you allow people to pay for your innovention, for example do they have to pay in full to get the innovention, or can they have credit? How will your innovention be delivered? Will consumers have to pick it up or will your company ship the innovention to them? Will this be free or not?</p> <p style="text-align: center;">Cost Analysis: (minimum 700 words)</p> <p>Explain everything you will need to create your innovention. <u>All products</u> you use must be listed. Also, list <u>how much</u> of each product you need, <u>prices</u> of each product and the cost involved in putting your innovention together. Will it be produced by people or machines, and what wages would you have to pay for them to produce your innovention. Explain where you would produce your innovention. Do you need a room, a building, or warehouse? Would there be any rent fees associated? Explain where you will keep your innovention until the consumer buys it. Are there any fees involved in the storage? Explain any other miscellaneous fees associated with the materials production, or the creation of you innovention. Explain what your company would charge for your innovention. Take into account all the fees and costs associated with the making of your innovention above.</p>			
Advertising:			

	<p>Create a billboard for your company to be used in tradeshow. Original designs only (hand drawn). Must contain at least 5 different geometric shapes with actual areas computed. Work attached on a separate sheet to back of billboard with formulas shown. Shapes must be easily identified.</p>			
	<p>Technical: (Must use Google Docs)</p>			
	<p>12 pt. font, double spaced, 1 report per group, minimum 1750 words, with bibliography and title page. Submitted to Mrs. Thinnes's turnitin.com in addition to hard copy.</p>			

Frankenstein Film <u>Final Film Due: Friday, May 25, 2012</u>	Assesment
--	-----------

House: **N E S W** **Issue/Innovention:** _____

Members: _____

Must complete all specifications listed below on time to qualify for Proficiency

Description:			
A film is created and edited based on the earlier screenplay and storyboard.			
Preparation Section: Must be complete for assessment	Self	Teach	Rev
Completed Call Sheets Director copy of script (with notes and changes) Completed Production Requirements and Responsibilities			
Content:			
Able to stand alone with a clear purpose concerning the overall plot. Reveal more and deepen the audience's understanding of the characters' personalities and relationships. Remain true to the underlying themes and spirit of the original novel.			
Technical:			
Be complete and ready for the film screenings. Edited on campus Filmed using a firewire Mini-DV video camera or teacher approved camera 3-5 minutes in length (this includes the opening and credits) Reasonably follow the script and storyboard prepared by the group and approved by the "producers". Utilize appropriate props and settings. Be performed without obvious use of scripts. All members must have an active role All members remain safe (no fire, hitting, drowning, hanging, gun play, stabbing, slashing, police involvement, no sexual content, no profanity, etc... you get the point, yes?)			
All members <i>actively</i> involved			

Tradeshow <u>Due: Thursday, June 3, 2012</u>	Assesment
---	-----------

House: N E S W **Issue/Innovention:** _____

Members: _____

Must complete all specifications listed below on time to qualify for Proficiency

	Description:			
	An exhibition in which innoventions are explained and marketed.			
	Preparation Section: Must be complete for assessment	Self	Teach	Rev
	Booth design Marketing technique			
	Content:			
	The following items need to be displayed and available at the booth: Project Binder (all project components included) Global Issue Boards Innovention Model Technical Drawing Patent Report Marketing Plan			
	Technical:			
	Salesmanship: every member must be able to provide necessary information Public Speaking skills (volume, clarity, and delivery) Appropriate behavior and attire Evidence of rehearsal All members actively involved Appropriate booth			