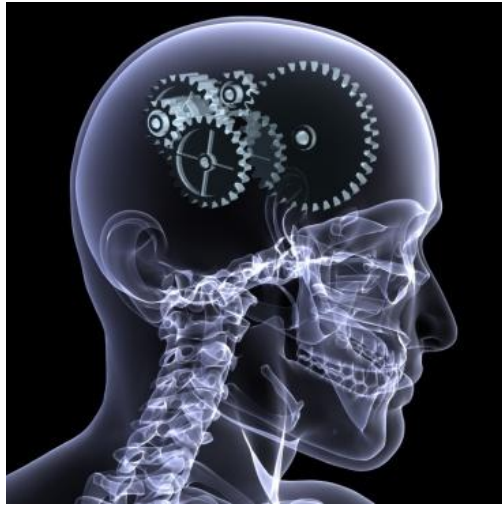


Citizens of the 21st Century



Project-Based Learning Project

Objective: Students will choose an issue currently impacting our planet and then propose a solution to the problem. Additionally, students will educate their peers and community members and raise awareness of their topic.

Procedure: Investigate a problem that is currently facing our planet that interests you and all of the members of your group. You will work together to collect research and come up with a solution to your specific problem. You will be collaborating on a final product that will be presented at the **Cedar Valley Youth Conference**.

Group Project: As a group, you will create a final product that will be displayed at the Cedar Valley Youth Conference on **Wednesday, May 13th**. Your final product must; 1) educate your audience and 2) raise awareness of your chosen topic. * ***Your group grade will be a combination of the score you receive from the audience rubrics, teacher rubric, self evaluation, and peer evaluations. Please make sure you have looked closely at these rubrics and know exactly how you will be graded.***

Individual Project: Each group member will write a one page Personal Opinion Essay. The essay will include your personal opinion on how your problem should be solved. You must have supporting evidence for your proposed solution. Pay close attention to the personal opinion essay rubric to know exactly how you will be graded. Your essay is due at the beginning of class on Monday, May 11th.

Possible topics to be investigated:

- **Global Warming** – Science fact or Science Fiction?
- **Climate Change** – Can it be reversed? And how?
- **Alternative Energy** – What's Hot, What's not?
- **Making Renewable Energy Affordable** – How can we stop our reliance on fossil fuels and begin to make renewable energy our primary energy resource?
- **Recycling** – What exactly happens when we recycle?
- **Technology** – How we can use technology to improve the world?
- **Stem Cell Research** – Where we've Been, Where We Are, Where We're Going
- **Overpopulation** – Has our planet reached its carrying capacity?
- **Genetics and Ethics** – Is it OK to clone animals & plants? What about humans?
- **Over-Fishing** – What impact does overfishing have on the ocean and us? How do we regulate fishing globally?
- **Deforestation** – Can't we just plant more?
- **Illegal Wildlife Trade** – How can this trade be stopped?
- **Genetically Modified Food** - What happens when plants are genetically engineered?
- **Species Loss** – What is the importance of biodiversity?
- **Water Crisis** – Why care about water?
- **Poverty and Hunger** – What is the solution in America and the world?
- **Cancer** – Can we find a cure?
- **Eradicating Infectious Diseases** – Can we find a cure for Ebola and other diseases in 3rd world countries?
- **Can We Find Another Planet to Colonize?** – How can we find it? How can we travel there and modify it for humans? Should we?
- **Your Choice** – *must be approved by teacher*

Possible Products

<p>Newscast</p> <ol style="list-style-type: none"> 1. Clear non-hesitant voices 2. Performance is rehearsed or movie maker file is properly edited 3. Proper science concepts included 4. Proper length (5 - 8 minutes) 5. Appropriate segments 6. Written (computer generated) script turned in 	<p>Musical Play</p> <ol style="list-style-type: none"> 1. Appropriate science content included 2. Performance is rehearsed or movie maker file is properly edited 3. Has a plot and clearly defined characters 4. Voice, music and other sounds are clear and understandable. 5. Lasts at least 5 - 8 minutes. 6. Written (computer generated) script turned in
<p>BrainPop</p> <ol style="list-style-type: none"> 1. Appropriate science content included 2. Voice, music and other sounds are clear and understandable. 3. Science concepts are correctly incorporated into the storyline 4. Movie is properly edited 5. Proper length (3 - 5 minutes) 6. Written (computer generated) script turned in 	<p>Magazine Article</p> <ol style="list-style-type: none"> 1. Science concepts and their effect explained clearly. 2. Pictures/illustrations further explain written words. 3. Discussion of how humans currently react and/or feel about the issue 4. Discussion of how changing the way we currently 'do things' will make a difference in this issue. 5. Opinions clearly stated and supported with scientific evidence.
<p>Song/Rap</p> <ol style="list-style-type: none"> 1. Appropriate science content included 2. Performance is rehearsed or movie maker file is properly edited 3. Voice, music and other sounds are clear and understandable. 4. Lasts at least 3 - 5 minutes. 5. Written (computer generated) song lyrics turned in 	<p>PhotoStory</p> <ol style="list-style-type: none"> 1. Appropriate science content included 2. Pictures and words are coordinated and the story is visually appealing 3. Organized and uncluttered 4. Incorporates technological options that are available 5. Technology works appropriately 6. Written (computer generated) script turned in
<p>Tri-Fold Poster</p> <ol style="list-style-type: none"> 1. Appropriate science content included 2. Problem clearly addressed and research described and detailed. 4. Pictures/illustrations further explain written words. 3. Discussion of how humans currently react and/or feel about the issue 4. Discussion of how changing the way we currently 'do things' will make a difference in this issue. 5. Opinions clearly stated and supported with scientific evidence. 6. Visually appealing 	<p>Your Choice</p> <p style="text-align: center;">Must be approved by your teacher!</p>

Timeline

Time	Tasks	Teacher Signature Required?
Day 1 (4/27)	Introduce project, find group members, discuss rubrics, and decide on topic to be investigated	Yes _____ Teacher Signature _____ Team is _____ Topic is _____
Day 2 (4/28)	Start researching chosen topic – Research Day 1	No.
Day 3 (4/29)	Continue Research – Research Day 2	No.
Day 4 (4/30)	Finish Research – Research Day 3	Teacher viewed completed research. Yes _____ Teacher Signature _____
Day 5 (5/1)	Decide on Final product, group roles, create group role rubrics, and project outline Homework: Begin Personal Opinion Essay (Due 5/11)	Yes _____ Teacher Signature _____ Group Roles are _____ Rubric is _____ Group Outline _____ Final Product is _____
Day 6 (5/4) thru Day 9 (5/7)	Work on Final Product Homework: Personal Opinion Essay	On Day 9 (5/7) Progress on Final Product Yes _____ Teacher Signature _____
Day 10 (5/8)	Peer Review/Focus Group – Day 1 Homework: Personal Opinion Essay	No.
Day 11 (5/11)	Peer Review/Focus Group – Day 2 Turn In: Personal Opinion Essay	Peer Review of Rubrics _____ Yes _____ Teacher Signature _____
Day 12 (5/12)	Reflect on Peer Review and Apply Final Touches	Final Product Viewed Yes _____ Teacher Signature _____
Day 13 (5/13)	Set Up and Present at CeVMS Youth Conference (cafeteria 3:30 to 5:00) Present projects (no exceptions – everyone must attend)	Teacher Observes Project and Sees Student at Conference Yes _____ Teacher Signature _____

Group Project Procedure:

1. Choose a problem, from the list above or choice approved by teacher
2. Assemble your team (you may work in teams of 2 – 4 people)
3. Create your own databank of information on your topic. Fill out the research sheet.
4. Create Group Member role rubrics.
5. Describe your personal opinion on how this problem should be solved.
6. Create a Product to share your research with peers, parents, and community members.

Individual Project – Personal Opinion Essay

Individual Project: Each group member will write a personal opinion essay about how they believe their chosen problem should be solved.

Essay Guidelines

- Essays should be persuasive and informative.
 - All of the facts and examples should be specific and relevant, and explanations are given that show how each piece of evidence supports your position.
 - Provide a minimum of three different pieces of evidence or reasons of support to defend your position.
- At least one-page in length (no more than two pages)
- Should be type-written, double-spaced, using 12 point font.
- Essays should have at least three-paragraphs:
 1. State what your topic is. Include a brief description of your topic.
 2. State your opinion of what needs to be done to solve your problem.
 3. Provide specific rather than general information that supports your opinion.
 4. Finish your essay with a conclusion paragraph that summarizes your opinion.

Teacher / Individual Rubric - Citizens of the 21st Century PBL

CATEGORY				
Reasons and Support	Excellent points are made with good support. All of the facts and examples are specific and relevant. It is evident the writer put much thought and research into the essay. 10 9	Points are made with support, but the arguments are somewhat weak in places. The writer doesn't persuade completely. Most of the facts and examples are specific and relevant. 8 7	Points are made, essay shows some preparation, but weak arguments. Some of the facts and examples are specific and relevant. 6 5	Arguments are weak or missing. Facts and examples are not relevant and/or are not explained. 4 3 2 1
Word Choice/Tone	Choice of words that are clear, descriptive, and accurate. Maintains consistent persuasive tone throughout essay. 10 9	Adequate choice of words that are clear and descriptive. Demonstrates a persuasive tone in parts of the essay. 8 7	Choice of some words that are clear and descriptive. Lacks consistent persuasive tone. 6 5	Language and tone of essay is unclear and lacks description. 4 3 2 1
Essay Content	Demonstrates a clear understanding of the topic. Essay is informative. 10 9	Demonstrates an ok understanding of the topic. Essay is somewhat informative. 8 7	Demonstrates a minimal understanding of chosen topic. Essay is not very informative. 6 5	Did not demonstrate understanding of the topic. 4 3 2 1
Essay Organization	Ideas were expressed in a clear and organized fashion. 10 9	Ideas were expressed in a pretty clear manner, but the organization could have been better. 8 7	Ideas were somewhat organized, but were not very clear. 6 5	The essay seemed to be a collection of unrelated sentences - difficult to figure out what the essay was about. 4 3 2 1
Mechanics and Grammar	Contains few, if any punctuation, spelling, or grammatical errors. 10 9	Contains several errors in punctuation, spelling, or grammar that do not interfere with meaning. 8 7	Contains many punctuation, spelling, and/or grammatical errors that interfere with meaning. 6 5	Contains many punctuation, spelling, and/or grammatical errors that make the piece illegible. 4 3 2 1

Personal Opinion Essay Rubric - Citizens of the 21st Century PBL

Traits	20 - 18	17 - 15	14 - 12	11 - 1
Focus	Essay has a focus throughout	Essay mostly has a focus throughout	Essay sometimes loses focus	Essay does not have focus
Organization and Effectiveness	Introduction is inviting, states the thesis, and provides an overview of the issue. Information is presented in a logical order and maintains reader's interest. Conclusion strongly states a personal opinion	Essay has an introduction, body, and conclusion, though not always clear or presented in a logical order	Essay is missing an introduction, body, or conclusion and/or does not make an effective argument	Essay is missing two of the following: introduction, body, or conclusion and/or does not make an effective argument
Reasons for Support	Three or more excellent reasons are stated with good support. It is evident that a lot of thought and research was put into this essay	Three or more reasons are stated, but the arguments are somewhat weak in places.	Two reasons are made with weak arguments	Arguments are weak or missing. Less than two reasons are made
Length	Essay is type-written and over one page in length using 12 point font and double spacing	Essay is type-written and is almost one page in length using 12 point font and double spacing	Essay is type-written and is one half page in length using 12 point font and double spacing	Essay is either not type-written or is one half page in length using 12 point font and double spacing
Grammar, Mechanics, & Spelling	There are no errors in grammar, mechanics, and/or spelling	There are few errors in grammar, mechanics, and/or spelling, but they do not interfere with understanding	There are several errors in grammar, mechanics, and/or spelling	There are numerous errors in grammar, mechanics, and/or spelling
Comments				

Audience Rubric - Citizens of the 21st Century PBL

CATEGORY				
Creativity	<p>The project reflects an exceptional degree of student creativity.</p> <p style="text-align: center;">10 9 8</p>	<p>The project reflects student creativity in its creation and/or display.</p> <p style="text-align: center;">7 6 5</p>	<p>The project reflects little student creativity in its creation/and or display.</p> <p style="text-align: center;">4 3 2</p>	<p>Minimal creativity is reflected in the project.</p> <p style="text-align: center;">1</p>
Content	<p>Students demonstrate an exceptional understanding of chosen topic.</p> <p style="text-align: center;">10 9 8</p>	<p>Students demonstrate an ok understanding of chosen topic.</p> <p style="text-align: center;">7 6 5</p>	<p>Students demonstrate a minimal understanding of chosen topic.</p> <p style="text-align: center;">4 3 2</p>	<p>Students did not demonstrate understanding of chosen topic.</p> <p style="text-align: center;">1</p>
Organization	<p>Well thought out and entertains and informs.</p> <p style="text-align: center;">10 9 8</p>	<p>Students did an ok job, entertaining and informative.</p> <p style="text-align: center;">7 6 5</p>	<p>Student did an ok job, but is missing key information.</p> <p style="text-align: center;">4 3 2</p>	<p>Poorly constructed or is uninformative or does not capture the audience's attention.</p> <p style="text-align: center;">1</p>
Presentation	<p>Spoke clearly, didn't use filler words (e.g., uhm, uh, ah, like, mm)., and looked relaxed.</p> <p style="text-align: center;">10 9 8</p>	<p>Spoke clearly most of the time, used some filler words, seemed a little nervous.</p> <p style="text-align: center;">7 6 5</p>	<p>Sometimes difficult to understand, referenced notes, nervous.</p> <p style="text-align: center;">4 3 2</p>	<p>Relied on notes to present the material, difficult to understand, spoke too soft or loud.</p> <p style="text-align: center;">1</p>
Responses to Audience	<p>Students provide exceptional responses to audience questions, comments, and concerns.</p> <p style="text-align: center;">10 9 8</p>	<p>Students provide appropriate responses to audience questions, comments, and concerns.</p> <p style="text-align: center;">7 6 5</p>	<p>Students did an ok job responding to audience questions, comments, and concerns – left out some information/ incomplete responses.</p> <p style="text-align: center;">4 3 2</p>	<p>Students do not provide appropriate responses to audience questions, comments, and concerns.</p> <p style="text-align: center;">1</p>

Name _____

Period _____

Peer Review Form/Rubric – Citizens of the 21st Century PBL

Your Name _____	Group Names _____
What is your initial reaction to the presentation?	
Does the group seem to understand their topic?	
Did the videos, texts, and graphics enhance the presentation or take away from their message? Be specific. Give examples.	
How were the technical aspects of the presentation? Color of text? Volume? Images?	
What should they add to their presentation? Is there anything they should remove from their presentation to make it better?	
If you were to give them a grade (0-100) today, what would it be?	

Please put any additional comments on back of page.