FACING THE FUTURE

UNITE US

PROPOSING COMMUNITY RESPONSES TO CLIMATE CHANGE IMPACTS

STUDENT PACKET

STEWARDSHIP PROJECT
PREPARING FOR GRADUATION (GRADES 11-12)
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Introduction and Planning

Welcome to Facing the Future, a UNITE US Stewardship Project for students completing coursework for the Preparing for Graduation (Grades 11-12). This engaging project presents you with the opportunity to be advocates for the future of your community.

These projects will be presented at a community event called a Climate Expo. At the Climate Expo, parents and other members of the community will be able to view these presentations and projects. Some Elders and community members will judge student projects and presentations. Winners of the competition will be able to travel to Fairbanks to present their projects to scientists at the UAF’s Geophysical Institute and other leaders. Winners of these presentations will be eligible to participate in a summer internship with NASA.

This past semester, UNITE US instruction has guided you towards answering the following Essential Question: What do you propose as your community’s response to a climate change impact? The following activities will help you in gathering information for your Stewardship Project of proposing a response to a climate change issue that affects your community.

☐ **Activity 1:** “And the Climate Change Issue is . . .”  
Due Date: _______________________
This activity will help you define the issue you would like to pursue based on the coursework you have completed.

☐ **Activity 2:** “Out of the Box Responses”  
Due Date: _______________________
This activity will help you stretch your brain in thinking about different ways to respond to your issue.

☐ **Activity 3:** “How do they Measure Up?”  
Due Date: _______________________
This activity will guide you in considering all the different responses you came up with.

☐ **Activity 4:** “Putting it all Together”  
Due Date: _______________________
This activity will help you in assembling all the parts you need to present your issue and response.

☐ **Activity 5:** “Peer Review”  
Due Date: _______________________
This activity will help you strengthen your presentation before the Climate Expo.

**Presentation at local Climate Expo**  
Date: _______________________

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Activity 1. And the Climate Issue is . . .

Throughout the UNITE US curriculum, you have investigated how climate change can impact communities. You have also seen how climate change issues can be informed by local knowledge and university science.

Materials:
- Portfolio of work from UNITE US lessons
- Climate Resources (www.uniteusforclimate.org)
- Electronic File: Microsoft Word document “And the Climate Change Issue is...” from www.uniteusforclimate.org

Procedure:

STEP 1. Look through your portfolio of work from the UNITE US lessons, as well as climate resources from the UNITE US website (www.uniteusforclimate.org).

STEP 2. Compile a list of issues that you have examined.

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STEP 3. Now, select one issue that you feel the most strongly about and would most likely impact your community. This will be your issue that you will address throughout the rest of this project.

The issue I would like to address is

______________________________________________________________________________________
______________________________________________________________________________________

STEP 4. Download the word document “And the Climate Change Issue is...” and complete the form. Use this form to.

STEP 5. Save a copy of the form for you to access in the future and print out a copy and attach to this sheet.
Activity 2. Out of the Box Responses

This is your opportunity to think of various ways that your community could respond to the issue you have identified. You may realize a combination of responses would be the most appropriate way to respond.

Materials:
- Blank paper
- Pencil/pen
- Concept mapping software (e.g., Inspiration, VUE, Compendium, Mindmeister, etc.) (optional)
- Climate resources (www.uniteusforclimate.org)

Procedure:

STEP 1. Draw a box with your issue in the center of the page.

STEP 2. Brainstorm possible responses and place them outside of the box. Strive to come up with at least 8 possible ways to respond. View the sample below. View Climate Resources (www.uniteusforclimate.org) to search for ideas of how other communities may have addressed similar problems.

STEP 3. Find a partner and exchange concept maps. Don't criticize ideas, but try to offer new ideas.

**Issue:**

Rising sea levels are eroding away the village.

- Find another location and build new buildings there.
- Haul in gravel to increase the level of the land and elevate buildings.
- Move to a city like Fairbanks or Anchorage.
- Move to camps.
- Move in to other villages.
- Find another location and move the village buildings to it.
- Build a sea wall.
- Put all buildings on stilts.
Activity 3. How do they Measure Up?

Now it is time to evaluate all the possible responses you came up with in Activity 2. Out of the Box Responses.

Materials:

- Envisioning the Future activity (From the STUDENT WORKSHEET: Sustainable Decision Making)

Procedure:

STEP 1. List each of your adaptive responses in the first column of the table on the following page. Continue onto another sheet if necessary.

STEP 2. For each possible adaptive response, classify it as positive (+) or negative (−) as it relates to each of the categories. Consider the questions listed below for each category. Include helpful notes.

STEP 3. After evaluating each of the possible adaptive responses, select your response(s) to present.

Vision of the Future

- Does this response fit with your vision of the future (From the STUDENT WORKSHEET: Sustainable Decision Making)?

Environment:

- How many resources does the activity use?
- Does the activity cause damage to plants or animals?
- Does it cause air pollution, water pollution, or soil erosion?
- Does it use resources at a rate that allows the resource to be renewed or regenerated?
- What happens to the waste created by the activity?
- Does the activity generate excessive waste?
- Does the activity honor traditional beliefs about the relationship of man and the environment?

Equity for All Members of Society:

- Does it contribute to all people's quality of life?
- How does it affect culture(s)?
- Are individuals and community groups involved in making decisions about the activity, and is the decision-making process fair and democratic?
- Is it an equitable activity; does it offer more options and opportunities to certain groups of people than others?

Economy:

- What is the economic impact of the activity on the community?
- Does it create meaningful and satisfying work for individuals or have the potential to do so?
- Does it contribute to a community's economic development or have the potential to do so?
- Does the activity rely on products or services that have negative effects on the environment or society now or in the future?
- Do some people benefit economically from this activity at the expense of others?
- Will this activity contribute to the conservation or loss of natural resources?
- Do you a sense of about how much this response would cost?
- Who should pay for this response? Do you have a sense of the timeline?
**FACING THE FUTURE**

<table>
<thead>
<tr>
<th>Possible Adaptive Response</th>
<th>Vision of the Future</th>
<th>Environment</th>
<th>Equity</th>
<th>Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample:</strong> Build a sea wall</td>
<td>Pos. (+)</td>
<td>Pos. (+) if successful, stops erosion</td>
<td>Pos. (+)</td>
<td>Neg. (–) high cost and might not work</td>
</tr>
</tbody>
</table>

Based on this evaluation, I choose the following response for my community regarding this issue:

________________________________________________________________________________________________
________________________________________________________________________________________________
________________________________________________________________________________________________
Activity 4. Putting it all Together

Now is the time to think about how you are going to express your issue and proposed response in a way that is engaging.

The following items of content must be included in your project. Use your information you gathered in Activity 1. And the Climate issue is…, and Activity 3. How do they Measure up?

- Climate change issue
- Background information:
  - Western science
  - Local or traditional knowledge
- Proposed community response(s) is/are the most positive responses for the vision of the future, the environment, equity and economy.

Select the format for your project. Your teacher will present the options to you. Record the format of your project.

- Collect graphics and data that will help you present your background information and your proposed community responses. These graphics may be pictures or graphs. Be sure to include sources of graphics.

**Introductory Presentation.** All projects will have an introductory presentation. Write out your introductory presentation in the space below. Make sure it includes the following:

- an introduction of yourself; (If you are able, introduce yourself in the traditional manner.)
- a statement of the climate related issue you are addressing in your project; and
- why you selected the format you chose.
Activity 5. Peer Review

This activity will help you strengthen your presentation for the Climate Expo. The objective of this activity is to get feedback from your peers as preparation for your presentation.

Procedure:

STEP 1. Share your project with at least two of your peers.
STEP 2. Ask them to fill out the review sheets on the next page.
STEP 3. Use their comments to make changes to strengthen your project.
STEP 4. Describe the changes you made to your project based on your peer review.

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Peer Review Form

Name of Reviewer: ___________________________ Date: ___________________________

Title of Project: ________________________________________________________________

Procedure:

STEP 1. View the presentation.
STEP 2. Consider the requirements of the project.
STEP 3. Answer the questions below.

1. One thing I liked about this project and presentation was:
   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________
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   ____________________________________________
   ____________________________________________

2A. One thing I am concerned about is:
   ____________________________________________
   ____________________________________________
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   ____________________________________________
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   ____________________________________________

2B. A suggestion I have to address this concern is:
   ____________________________________________
   ____________________________________________
   ____________________________________________
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   ____________________________________________

Science Content and Climate Literacy
- The issue clearly has a connection to climate.
- The scientific concept is explained well.
- This project combines both western science and local or traditional knowledge for a relevant concern.
- The proposed response(s) shows thought towards the community’s future, economy, environment and social equity.

Organization and Overall Appearance
- This project hooks the audience at the beginning and clearly guides them through the issue and proposed response(s).
- The product is aesthetically appealing.
- The student took care in designing the project.

Mechanics
- Spelling and Grammar are correct.
- Graphics are captioned and help show the significance of the issue and/or response.
- Data is clear and properly labeled.
- Sources of information are listed correctly.

Introductory Presentation
- Speech, confidence, knowledge and enthusiasm are inspirational and set the stage for the project.
**Peer Review Form**

Name of Reviewer: ___________________________  Date: __________________

Title of Project: ___________________________________________________________________

**Procedure:**

**STEP 1.** View the presentation.
**STEP 2.** Consider the requirements of the project.
**STEP 3.** Answer the questions below.

1. One thing I liked about this project and presentation was:
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**Introductory Presentation**
- Speech, confidence, knowledge and enthusiasm are inspirational and set the stage for the project.
FACING THE FUTURE

Rubric

Facing the Future
Preparing for Graduation (Grades 11-12)
Stewardship Project Rubric

Student Name(s): ________________________________________________________

Title of Project: _________________________________________________________

<table>
<thead>
<tr>
<th>Science Content and Climate Literacy</th>
<th>10</th>
<th>8</th>
<th>6</th>
<th>4</th>
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