How can we save the world?
Grade: 2
Alyssa Montesi

Stage 1:

PA State Standards

PA Core Curriculum Standards for Social Studies

5.2 Civic Rights and Responsibilities
   5.2.2.A Identify and explain the importance of responsibilities at school at home and the community
   Conflict and Resolution
   5.2.2.B Identify a problem and probable solution
   Leadership and Public Service
   5.2.2.C Identify community projects/activities that support leadership and public service
   Competent and Responsible Citizens
   5.2.2.D Explain responsible community behavior

6.1 Scarcity and Choice
   6.2.1.C. Explain how choice has consequences
   6.2.1.D. Identify a choice based on community interest

6.2 Markets and Economic Systems
   6.2.2.A Identify goods, services, consumers, and producers in the local community

6.4 Economic Interdependence
   6.4.2.C. Identify local resources
     - Natural
     - Human

7.2 Physical Characteristics of Places and Regions
   7.2.2.A. Identify the physical characteristics of places
   7.2.2.B Identify the basic physical processes that affect the physical characteristics regions

7.3 Human Characteristics of Places and Regions
   7.3.2.A Identify the effects of local geography on the residents of the region (food, clothing, industry, trade, types of shelter, etc.)

7.4 Interactions Between People and the Environment
   7.4.2.A. Identify how environmental changes can impact people
   7.4.2.B. Indentify how places and regions are impacted by people

PA State Standards for English Language Arts

CC.1.4: Writing: Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.
   CC.1.4.2.A- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly.
   CC.1.4.2.B- Identify and introduce the topic.
   CC.1.4.2.C- Develop the topic with facts and/or definitions
   CC.1.4.2.F- Demonstrate a grade appropriate command of the conventions of
standard English grammar and spelling. • Capitalize proper nouns. • Use commas and apostrophes appropriately. • Spell words drawing on common spelling patterns. • Consult reference material as needed.

CC.1.4.2.G- Write opinion pieces on familiar topics or texts.
CC.1.4.2.J- Create an organizational structure that includes reasons and includes a concluding statement.
CC.1.4.2.L- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling.
CC.1.4.2.R- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. • Capitalize proper nouns. • Use commas and apostrophes appropriately. • Spell words drawing on common spelling patterns. • Consult reference material as needed.
CC.1.4.2.T- With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

CC.1.5: Speaking and Listening: Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.

CC.1.5.2.A- Participate in collaborative conversations with peers and adults in small and larger groups.
CC.1.5.2.B- Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
CC.1.5.2.D- Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
CC.1.5.2.F- Add drawings or other visual displays to presentations when appropriate to clarify ideas, thoughts, and feelings.
CC.1.5.2.G- Demonstrate command of the conventions of standard English when speaking based on grade 2 level and content.

National Curriculum Standards for Social Studies

- Theme 2: Time, Continuity, and Change
  - An understanding of the past makes it possible to attempt to understand and plan for the future. Through studying the past, we can analyze cause and effects and design future preventative measures. This theme allows studying life and phenomena overtime to see how humans, priorities, ideals, and the world have changes and evolved.

- Theme 3: People, Places, and Environment
  - This theme helps learners develop spatial understandings of their community and the world to examine people, habitats, and resources to understand why they are located where they are. Students will use these understandings to further develop their comprehension of the relationship between human populations and the physical world. This theme is critical in developing understandings to address social, cultural, economic, and civic issues.
• Theme 7: Production, Distribution, and Consumption
  o This theme focuses on scarcity, production, and the interdependent economic systems of groups and regions. Learners will investigate prioritizing economic wants versus needs and how these decisions affect themselves and their surround environments. Collecting and gathering data play a key role in the development of understanding under this theme.

• Theme 10: Civic Ideals and Practices
  o An understanding of civic ideals and practices is necessary in the education for citizenship. The ultimate aim of social studies is to educate to promote civic competence. Under this theme students will learn how to act as competent and civic citizens through understanding their appropriate roles in society that allow them to do so.

Essential Questions

Topical
• What difference can recycling make to the environment?
• What effects do different types of pollution have on the environment?
• How can the community come together to help save the environment?
• How is our community dependent on other communities and environments?
• What is each person’s responsibility to the environment?

Overarching
• How can we save the world?

Enduring Understandings: Students will understand that...
• Recycling is the process of repurposing waste into new reusable materials.
• Recycling is important because it reduces the amount of waste and the need to consume more natural resources and valuable material.
• Pollution is waste in our environment.
• There are three types of pollution: air pollution, water pollution, and land pollution.
• It is important to work together towards a greater cause.
• When people come together, they can generate clean initiatives or vow to use fewer resources which, collectively, will help to save the environment.
• All communities in the world are dependent on one another.
• Our actions impact other environments that in turn impact ours.
• Waste and pollution are created through daily activities.
• Transportation creates pollution.
• Using less water, riding their bike instead of driving a car, using less heat, and recycling leads to less pollution.
• Each person has a responsibility to care for his or her environment and community.
• How the health of the earth has changed overtime.
• How their actions impact their communities and other communities.
• That the world is interdependent.
Students Will Know…

- Why it is important to recycle.
- That pollution exists in 3 different forms: air pollution, land pollution, sea pollution.
- The causes of air, land, and sea pollution
- Ways to prevent air, land, and sea pollution
- How to make changes to their daily lives to reduce the pollution they create and the energy they use.
- How pollution moves throughout an environment
- That there are different environments exist in the world (town, city, rainforest, desert, farmland, arctic etc.)
- How to define different types of environments.
- How to create community efforts to save the environment.
- That pollution has caused our environment to change overtime.
- That the community can make a difference

Students Will Be Able To…

- Work cooperatively in small groups
- Work independently
- Explain causes of pollution through discussion and writing
- Identify the effects of pollution
- Create a flow chart of pollution in the environment
- Use a graphic organizer to plan a writing assignment
- Gather main ideas from videos
- Identify activities that do cause pollution
- Identify activities that do not cause pollution
- Participate in classroom discussions to further their understandings
- Create plans for a community event to save the environment
- Hypothesize ways they can change the environment
- Create a means of communication convincing people to join in a community event

Stage 2:
Pre-Assessment:

- Classroom discussion day 1: Students will discuss the importance of saving the environment and recycling. The class will also talk about what pollution is and its effects. This will provide insight into what the students already know and elicit their prior knowledge, before continuing the lesson to cast aside misconceptions and build on new knowledge.
- Class discussion day 3: Students will enter into a discussion about how their own actions affect their community. This extends into a discussion of how our actions affect other communities and types of environments. These discussion will allow to teacher to see how students are applying the knowledge from other lessons and applying them and extending them to new ideas.

Formative Assessment:
• Pollution Graphic Organizer: Through research, background knowledge, and evidence from class discussion, students will fill in a graphic organizer containing information about a certain type of pollution, how to stop that pollution, and how the earth has changed overtime from that pollution.

• Pollution Diagram: Working collaboratively as a class, students will create diagrams of how pollution enters into an environment, how it travels through and environment, and the affects it leaves. The teacher will facilitate the process and the diagrams will reflect the example the students were given.

• Skill Checks:
  o Pollution worksheet: Students will be given a worksheet with pictures of different activities. Students must cut out the pictures and past them under the appropriate sections of “causes pollution” and “does not cause pollution”.
  o Group discussion- Students will identify how their daily actions effect their community and other communities and environments

• Community Initiative Brainstorming Worksheet: This worksheet will be used to brainstorm and plan ideas for their community initiative. The students will use the understandings they have built to answer the questions: What would you like your event to accomplish? Why is this important? How are you going to communicate this even and the importance of it to the community?

Summative Assessment
• Pollution Solution: Based off of their graphic organizers they have filled in with research and evidence from discussion, students will write an informative piece detailing facts about pollution, how to stop pollution, and how the earth has changed overtime from pollution. A first draft will be written on plain white paper. The student and teacher will conference to edit and revise the piece, then a final copy will be written on Earth Day themed paper. This assignment is to be completed independently.

• GRASPS Tasks: Community Initiative: Students will work collaboratively in small groups to plan a possible community event based on eliminating pollution and saving the environment. Each group will create a poster or some medium of communication to communicate the importance of the event and present it to the class.
  o Goal-
    ▪ In coordination with your group, your task is to convince your community that it is imperative that everyone comes together to save the environment.
  o Role-
    ▪ You are an active and environmentally conscious member of the community.
    ▪ Your job is to communicate the importance of stopping pollution and saving the environment.
  o Audience-
    ▪ Your target audience is the surround community.
You need to convince your community of the important role they play in saving the environment.

- **Situation-**
  - The challenge involves dealing with collaboration in a group, understandings of the environment, pollution, and why saving environmentally saving the world is important.
  - You must also deal with a way to clearly and effectively communicate with your community.

- **Product, Performance, and Purpose-**
  - You will create plans a fictitious community event where people come together to save the environment in order to communicate the importance of being green and environmentally conscious citizens.
  - You need to develop a poster for this event, so that people are aware of the cause.

- **Standards and Criteria for Success-**
  - Your performance needs to be clearly communicated and persuasive.
  - Your work will be judged by the generated plans for an event based on your understanding of pollution and saving the environment, your effectiveness of communicating your goals, and your ability to work collaboratively.

**Self-Assessment and Reflection:**

1. **Community Initiative Self-Assessment:** Students self-asses the community event they helped created and their choice of communication medium by filling out a worksheet with the questions: How satisfied are you with your community initiative? What could have been improved? Do you prefer working with a group or working alone? This will require students to reflect on what they have learned and how they chose to conduct themselves in the collaborative environment.
2. **Environmental Reflection-** Using a reflection form, students will engage metacognitively with the material they have interacted with all week. They will be asked to think about their personal lives and reflect on the extent to which they recycle and create pollution in their personal lives.

**Adaptations:**

- Students with hearing or visual impairments may watch the videos on a personal screen or using personal headphones. Subtitles or transcripts may also be given or read to students.
- Students with motor disabilities or writing difficulties may be given a scribe to which express their ideas. The scribe may write down the students’ ideas word for word. For Pollution Solution, students may type their writing pieces.

**Stage 3: Lessons and Activities**

**Day 1**
Materials:
- “Magic School Bus Holiday Special: Recycling” video
- Ipad or computer
- Graphic organizers
- Rough draft paper
- Final draft “Earth day” paper
- Pencils

Procedure:
1. Open the lesson with telling students that Earth Day is coming up on April 22. Ask them why it is important to celebrate Earth Day.
2. Continue this question as a class discussion. Look for answers about the importance of helping the earth and saving the environment.
3. Ask the students what is one way we can help the environment. It is something that we do everyday, even in our classroom. The answer you are looking for is recycle.
4. Enter into a discussion about why recycling is good for the environment.
5. Introduce the video “Magic School Bus Holiday Special: Recycling”. Make sure to communicate to the students that while this video is set during the holidays, its message is the same no matter what time of the year it is.
6. Play the video at the YouTube clip https://www.youtube.com/watch?v=OhnzbhHvzPU. Begin the video at 3:05. Pause the video at 6:48 after the character Wanda says, “I wish recycling hadn’t been invented.”
7. Ask the students what might happen if recycling had never been invented? What do they think are the good things that recycling does?
8. Play the video and continue watching it through the end.
9. Ask the students why recycling is important. Facilitate a discussion amongst the classroom. Look for answers about how recycling reduces the amount of garbage we create and how it brings the community together.
10. Without recycling, garbage builds up on land where it is not suppose to be. Ask the students if they know a word for this. The answer is pollution.
11. Tell the students that there are different types of pollution. What type of pollution do you thin recycling helps to get rid of? Look for the answer land pollution.
12. Tell the students to discuss with their neighbor what other types of pollution exist. After about 3 minutes of small group discussion open the discussion up to the entire class. Look for the answers of water pollution and air pollution.
13. Tell the students they will be researching and writing informative pieces telling people the effects of pollution and how it has changed the earth overtime. Each student will be given one type of pollution to research. Split the class evenly.
14. Hand out an Ipad to each student and instruct them to use the website www.ducksters.com to research their type of pollution. This website is highly informative and student friendly.
15. Pass out graphic organizers for students to use. They must complete the graphic organizer with facts about what creates their pollution, the effects of their pollution, and how they can stop their pollution.
16. When the graphic organizer is filled in, students will use the information they researched to write their first draft on lined paper.
17. When their draft is finished, teachers will work with the student to edit and revise their piece.
18. When editing and revising is complete the students will write their final draft on Earth Day paper.
19. When their writing is finished hang it in the hallway.
20. Students should read independently when they are done with the lesson.
21. Throughout the week, allow students to go into the hallway and read the writing pieces of other students.

Day 2
Materials:
- Bald Eagle Alert by Val Montegnana Walla
- Promethean Board/whiteboard/poster paper
- Markers

Procedure:
- Project the diagram of water pollution from the Bald Eagle Alert by Val Montegnana Walla on the board.
1. Ask the students what they think this diagram is representing and communicating. Look for answers of how this diagram represents the effects of water pollution.
2. Pick students to come up to the board and explain each part of the diagram.
3. Tell students that together as a class we are going to create diagrams for air pollution and land pollution.
4. Bring up a blank page on the Promethean Board (if you do not have a Promethean Board of Smart Board you can use a piece of poster paper or the whiteboard).
5. As a class, generate the steps and effects of air pollution: where it comes from, where it travels to, what it affects.
6. Select students to come up to the board and draw one step of the diagram. Repeat until the diagram is finished.
7. Read the diagram as a whole and ask the class if there is anything they should add or change.
8. If the class is satisfied with the diagram, save it and open a new blank page.
9. Repeat steps 5-9 with land pollution.
10. When the class is satisfied with the diagrams they have created collectively, ask them if they think pollution happens in all types of environments. Facilitate a discussion around this question.
11. Bring the discussion to a close and thank the students for their great work that day.

Day 3
Materials:
- Helpful or Harmful? worksheet
- Pencils
- Scissors
• Glue
• “The Rainforest” video from “School House Rock! Earth”

Procedure:
1. Hand out “Helpful or Harmful?” worksheet, and have the students complete their worksheet independently.
2. When all students have completed the worksheet go over the answers as a class.
3. If there is controversy over an answer enter into a class discussion to reach a verdict.
4. When the class is finished going over the answer, tell the students that now that we know what causes pollution, let’s think about the effects of pollution all over the world.
5. Propose the idea that the pollution we create in our environment effects other environments and communities around the world. Ask students what they think about this idea.
6. Ask students if we are dependent on other environments and other parts of the world? Enter into a discussion talking about things we use in every day life and where they come from. For example, the paper we use everyday comes from trees from around the world.
8. When the video is over ask the students what they thought the main idea was. Facilitate discussion to lead to the understanding that our actions effect other environments in negative ways.
9. Split that class up into groups. Have each group come up with an action that they do that might effect other environments or communities. Then, share the groups’ ideas.
10. Propose how our actions in our environment might effect: deserts, farmland, cities, and arctic environments. Encourage the students to think about this question in their own lives.

Day 4
Materials:
• Brainstorming worksheet
• Poster board
• Pencils
• Markers
• Crayons
• Scissors
• Glue
• Computers (optional)
• Colored paper

Procedure:
1. Open the lesson with the discussion of how each person can help save the environment. Ask students if it would make a greater impact with more people? Students should answer “yes”.

2. Tell the students that while it is so valuable for us to know how to save the world, but it is even more important to communicate this information to everyone else.

3. Break students up into groups of 5. Groups should have a mix of students from all levels.

4. Explain to students that they will be working collaboratively to create a community initiative. They will work together to create a fictitious event that brings the community together to help save the environment. This could be a public speaking event to inform people about pollution, a trash cleanup event, a recycling demonstration etc.

5. Once the groups have come up with an idea and a plan they will create a way to communicate this to the community. This could be a poster to be displayed over town, a PowerPoint to be shown at a PTA meeting, etc.

6. Explain that each student must contribute to the group. Students will be completing a peer evaluation. Their groups’ overall grade will be dependent on each person in the group.

7. Hand out brainstorming worksheets with the questions
   a. What would you like your event to accomplish?
   b. Why is this important?
   c. How are you going to communicate this event and the importance of it to the community?

8. The rest of the lesson period should be used as a work period.

9. Monitor the class and conference with each group. Before groups can start on their communication aspect, they must have their worksheet and ideas checked by the teacher.

10. Have poster boards, scissors, glue, colored paper, computers and other necessary materials ready.

11. Chose a group that works well together but could use some improvement. Do a “fishbowl” exercise with the class.

12. Have the chosen group continue to work while the class watches. Give comments and critiques as the group works and thinks. This will show other students how to work collaboratively, assign jobs, and generate ideas.

13. When groups are done planning and crafting their communication aspect, groups must prepare a small presentation where they will tell the class about their initiative and share the way they chose to communicate their event. Every group member must speak in the presentation.

14. Allow students sufficient time to finish their initiatives and their presentations.

15. Commend students on their effort in class today and thank them for learning with you.

16. Tell them tomorrow they will share their presentations with the class.

Day 5
Materials:
- Student presentation materials
- Personal reflection worksheet
- Community initiative worksheet

Procedure:
1. Tell the students you are very excited about their presentations today. Emphasize that it is fun to learn from one another.
2. Ask if there is any group that wishes to go first. If there is, allow that group to present. If not, pick a group.
3. After each presentation the class will applaud. The class will ask the presenting group questions about their presentation or initiative if they have any.
4. Repeat this process through each group.
5. After each group has presented, explain to the students the importance of reflection in learning. Thinking about what we have learned and how we can continue to grow.
6. Pass out the community initiative reflection. Instruct the students to think about the process from when then started working in their group to when they finished presenting. Tell them to answer the questions on the worksheet.
7. Collect the worksheets when students are finished. Tell them that there is one more reflection that they need to complete. Explain that you will complete the reflection, as well, because everyone learned so much this week.
8. Pass out the reflection forms and complete it individually with the students.
9. Allow students all the time they need to complete the reflection. When they are finished, collect all of the papers and thank the students for all of their hard work this week.
## Pollution Solution Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Writing is very focused and stays on task with factual and informative information. Meets all areas of the assignment.</td>
<td>Writing is focused and stays on topic for the most part. Some personal opinion or irrelevant information is added.</td>
<td>Writing meets few prompt requirements, and includes unrelated information and/or personal opinion.</td>
<td>Writing is not focused. Does not contain factual information or meet the prompt requirements.</td>
</tr>
<tr>
<td>About pollution</td>
<td>Writing contains factual and descriptive information about the assigned pollution.</td>
<td>Writing contains factual information about the assigned pollution, but is lacking description.</td>
<td>Writing contains information that is not always factual. No description is given.</td>
<td>Writing contains no factual information or descriptive language regarding pollution.</td>
</tr>
<tr>
<td>How to stop pollution</td>
<td>Writing contains multiple methods to stop pollution that are realistic and based on research.</td>
<td>Writing contains few methods to stop pollution. Methods are somewhat realistic.</td>
<td>Writing contains only one method to stop pollution.</td>
<td></td>
</tr>
<tr>
<td>How the earth has changed</td>
<td>Writing descriptively describes many ways pollution has changed the earth overtime. Examples are based on research.</td>
<td>Writing contains examples of how pollution has changed the earth over time, but language is not descriptive.</td>
<td>Writing contains only one example of how pollution has changed the earth overtime. Example is confusing and not based on research.</td>
<td>Writing does not contain examples of how pollution has changed the earth overtime.</td>
</tr>
<tr>
<td>Conventions</td>
<td>Writing contains 0-1 spelling or grammar errors. Errors do not disrupt the reader.</td>
<td>Writing contains 2-3 spelling or grammar errors. Errors do not disrupt the reader.</td>
<td>Writing contains 4-5 spelling or grammar errors. Errors disrupt the reader.</td>
<td>Writing contains more than 6 spelling errors. Errors disrupt the reader.</td>
</tr>
</tbody>
</table>

Comments:
Student Self-Assessment and Reflection

Use this scale to answer indicate how you feel about the following statements.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Don’t Know</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I understand how pollution is created.

1 2 3 4 5

I understand how I create pollution in my own life.

1 2 3 4 5

Can you give an example?

________________________________________________________________________

I understand how I can decrease the amount of pollution I make in my own life.

1 2 3 4 5

Can you give an example?

________________________________________________________________________

I believe I have the ability to save the environment.

1 2 3 4 5

I believe the community can come together to save the environment.

1 2 3 4 5
Community Initiative Self-Assessment

How satisfied are you with your community initiative? Circle the number

1 2 3 4 5
Very Satisfied Satisfied Don’t Know Unsatisfied Not Satisfied At All

What do you think could have been improved on your project?

________________________________________________________________________

Do you prefer working with a group or working alone?

________________________________________________________________________
Community Initiative Brainstorming

Group members: __________________________________________

How do you want to help the environment?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Why is this important?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

How would this help your community?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

What are possible ways you can accomplish this?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

How would you like to communicate this to your community?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Cut out the statements below and paste them in the appropriate category

<table>
<thead>
<tr>
<th>Helpful</th>
<th>Harmful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pick up trash at a park</td>
<td>Leave the water running while washing the dishes</td>
</tr>
<tr>
<td>Donate clothes</td>
<td>Leave the lights on when you leave the house</td>
</tr>
<tr>
<td>Take shorter showers</td>
<td>Pour chemicals down the drain</td>
</tr>
<tr>
<td></td>
<td>Plant a tree</td>
</tr>
<tr>
<td></td>
<td>Recycle cans and bottles</td>
</tr>
<tr>
<td></td>
<td>Dump waste into the ocean</td>
</tr>
<tr>
<td></td>
<td>Drink from reusable bottles</td>
</tr>
<tr>
<td></td>
<td>Drive to the store instead of walk</td>
</tr>
<tr>
<td></td>
<td>Throw trash out the window</td>
</tr>
</tbody>
</table>
Community Initiative Rubrics

Presentation Checklist

Every group member spoke ______

Initiative was communicated through some medium (poster, slideshow, pamphlet) ______

Initiative was explained verbally ______

One reason why this event is needed was explained verbally ______

Two examples of how this event will help the community are explained ______

Community Initiative Rating scale

<table>
<thead>
<tr>
<th>Poor</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Initiative shows a grasp of material throughout the unit.

1 2 3 4 5

Initiative reflects a community need.

1 2 3 4 5

Initiative presents rationale for being created.

1 2 3 4 5

Initiative is probable.

1 2 3 4 5

Initiative is thoughtful and reflective.

1 2 3 4 5

Communication of initiative is neat and pleasing to the eye.

1 2 3 4 5