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## Lesson Cycle 2-3 Weeks

### **Objectives:**

1. Design and participate in community improvement projects that help inform others.
2. Suggest ways people can responsibly interact with the environment in the local community.
3. Describe positive and negative consequences of changing the physical environment of the local community.
4. Participate in projects to help or inform others.
5. Develop and implement an action plan to address or inform others about a public issue.

### **Vocabulary:**

- Environmental problems
- Natural Resources
- Problem
- Solution
- Toxic Waste

### **Big Idea:**

Over time humans change the way their natural environment looks. Those changes influence society positively and negatively.

## Original Lesson 1

Students will write in their writing journals addressing one of the following questions:

- What would our community be like if all the trees were cut down?
- How would you feel about swimming in a lake covered with oil?
- Why is there so much litter along the sidewalks and streets of our community?

Read the book *a River Ran Wild* as a large group, pointing out the small pictures on the pages. Ask the following questions:

- What was the river like at the beginning of the story?
- How did the river change?
- What is the river like now?

Make a three- column chart on the board with one column being CHANGES, the next column being GOOD OR BAD, and the third column being WHO OR WHAT. Have the students take a school walk in the neighborhood to look for changes in the natural environment. What things have changed since you first lived in the neighborhood, are those changes good or bad? Who was affected by the change?

## Revamped Lesson 1

Invite a school grandmother to come in and talk to the kids about what Battle Creek used to be like. A grandmother who knows several of the students and has ties to the school. Have her address the fact that 30 years ago Battle Creek did not have a mall, years before that their school did not exist, and since that time many buildings and companies have come to make Battle Creek their home.

- Have her then show pictures of her childhood with Battle Creek scenery.
  - Ask the question: What do you notice about Battle Creek that looks different then than it does today?
- Give students a group of photos of what Battle Creek used to look like and then what it looks like now, a continuum of pictures, have the students try and put it in order from oldest to most current (Council of Interracial Books for Children, 10).
  - How did you arrange your pictures?

- How did you know what came first/what came next?
- What can we say about our community judging from these pictures?
- Why do you think the photographer took these photos? What do these photos tell us about the author? The viewer? The time period? (Werner, 2006, p. 208)

**Homework Assignment: Have students interview an adult, whether a parent, friend of the family, or another family member. Ask them to tell you about their childhood and where they grew up. How has that community changed and evolved or grown since they were a child. Were they happy about the changes? Do you think your community will change in the next 30 years? How do you know?**

## **Lesson 2**

Invite several community members to come in and talk to the class. People who have been in the community for at least 20 years to see the changes. (A grandparent, retired teacher, business owner, or community official). Have the students interview those people in groups of four or five. Possible interview questions include: How long have you lived in the community? What are the changes to the natural environment you have observed? What was the best change? What was the worst change? Who or what was affected by the changes? Were the changes natural or made by humans?

Have students look at old photographs of the natural environment of Battle Creek in comparison with the current environment. How has things changed? Note the similarities and differences for all the students to see.

Have students write in their writing journals on the topic, “How are you affected by the changes that have happened in Battle Creek. Students will take the knowledge they have learned from the interviews, photographs, and neighborhood walks to do this.

## **Revamped Lesson 2**

Show the students pictures of the community in which they live in Battle Creek.

- What do you notice about this community? What makes it home to you? Do you think that everyone’s community looks exactly like yours? How do you know? (James, 1995, 108).

Now imagine that your home looked a little different(no trees, swimming in a lake covered with oil, so much litter in the streets you couldn’t walk, the sky was always dark and filled with pollution) what would it look like? How would you feel? How do you think the people around you would feel?

- Have students complete a 7 minute independent writing addressing those questions.
- Have 4-5 students share their writing with the class.
  - Were there any similarities in the way that you saw the new world?
  - Were there any differences in the way you saw the new world?
  - Why do you think there were similarities and differences?

Read a *River Ran Wild* to the children. Show them the cover of the book and read the first two pages.

- Look at the pictures. What is the river and community like? How would you describe it? Do you know a place that looks like this? How do you think the people felt at this time? Why? (Council of Interracial Books for Children, 10).
- Stop halfway through the book. How is the community changing? How do you know? What is driving this change?
- Stop at the end of the book, point to the pictures. What is the river and the community like now? How do you think the people felt at this time? How do you know?

### Lesson 3

Read the *Wartville Wizard* to the class to show them an environmental problem. Talk about the trash problems which occurred and brainstorm possible solutions to the problem. Set the purpose for the students: They are going to look at environmental problems in their world and possible solutions for them.

Make a class list of environmental problems that the students see in their world.

#### **Have students look through headings in the newspaper and surveys to find out**

Invite a park naturalist or an official from the Department of Natural Resources in to speak to the children about environmental problems. Add these problems to the class list. Have students then interview students from another class about the environmental problems in which they see occurring in their world. Asking the questions: What do you think is a problem in our school environment? How might this problem be solved? Add these problems to the class list.

Read *50 simple things kids can do to save the earth* to the class. Have students create a television news report describing an environmental problem and how they might solve the problem.

### **Revamped Lesson 3**

### Review the book *A River Ran Wild*

- What happened in this story?
- How did the environment change?
- Tell students that they are going to do an experiment where they must make observations on how something as simple as a river can change over time (Whelan, 2006, p. 244).

Allow the students to work in groups of two.

The students will get one bowl of clear water that they can visibly see at the bottom of

- What do you observe about this water? Is it polluted? How do you know?

Students will get three 60 oz bags of substances to be emptied into the water. These substances act as pollutants.

- Please add cup number 1 to the water. This cup contains oil that is emptied into rivers by companies, spills, or people.
  - What do you notice is happening?
  - Please add cup number 2 to the water. This cup contains pieces of trash or litter that is also emptied into the rivers.
    - What do you notice is happening?
    - Who do you think emptied this in? Have you ever done it?
  - Please add cup number 3 to the water. Number three contains food coloring and baking soda. This substance is symbolic of more pollutants that get emptied into our rivers every year.
    - What do you notice is happening?
  - Judging from the way the river looked at the beginning and now at the end. Which river would you rather have in your community and use? Why?
    - Have you ever seen rivers or lakes or beaches that do not look appealing? What do you think happened to them? (James, 1995, 108).

### Lesson 4

Read the introduction to Chapter 13 in *Social Studies Alive! Our Community and Beyond with Students*. Ask the students what they predict they will learn.

### Whose Planet Is It?

#### CHORUS:

Hey, whose planet is it, anyway?  
 We need to care about it today.  
 There are problems that can be solved  
 All we need to do is to get involved.

Air pollution makes it hard to breathe,  
 An oil spill can mess up the seas.  
 A toxic waste dump near a school,  
 If you lived here, what would you do?

#### CHORUS

Kim got sick and then very soon.  
 Other people from her school did, too.  
 Toxic waste was under the school.  
 If you lived here, what would you do?

- Have students listen to a **CHORUS** sound track titled, "Whose Planet is it?" with the lyrics.
- Have students read a case study on: The Three Musketeers. Have the students talk about ways the community can respond to the issue to solve it. Then have students read pages 130 and 131 in their *Social Studies Alive! Our community and Beyond*. Have students create "Pollution Solution" cartoons, illustrating a problem and a solution
- Have the students present their solution and have the students address whether they think it's an applicable problem and good solution.

### Revamped Lesson 4

Have students complete a free write on the following topic: Introduce the oil spill by showing them a YouTube video of what the oil on the water looked like and how oil and water mix:

[http://www.youtube.com/watch?v=1eSGK\\_0Hxnk](http://www.youtube.com/watch?v=1eSGK_0Hxnk)

<http://www.youtube.com/watch?v=EFtFHCyntnA>

- Have students talk about the Kalamazoo/Battle Creek oil spill. What do you know about this oil spill? How did it affect wildlife near our homes? Who was affected by this spill? How do you know? Was everyone affected? How would life have been different if this oil spill had never come about?



Have students work in groups of two and read the following articles at the websites below, jotting down notes they find along the way of new knowledge that they acquire:

<http://www.battlecreekenquirer.com/article/20100805/OILSPILL/8050313/Oil-spill-cleanup-focus-homes-near-river>

<http://www.freep.com/article/20100728/NEWS06/7280352/Oil-spill-near-Kalamazoo-River-causes-stench-mess>

**Bring students back together and talk about the information they learned**

- **What new information did you find?**
- **Was everyone affected by the oil spill in the same way?**

## **Lesson 5**

Have students read a case study on the Exxon Valdez Oil Spill then have groups read pages 134 and 135 from their *Social Studies Alive! Our Community and Beyond*. Show students a list of strategies that they can use to solve the oil spill problem, and then have them create statue representations with their bodies of the problem and the way they chose to solve that problem. Have the students guess what solution was being represented.

## **Revamped Lesson 5**

Oil spill affects on wildlife

Have students watch the following video on how birds feathers are affected by oil.

<http://www.youtube.com/watch?v=5mW6h0X7uK8&feature=related>

- Is cleaning up the birds feathers an easy task to do?
- Why is the oil spill such a big environmental problem?

Have students research on the internet with a partner strategies they can use to solve the oil spill.

Have students share out their strategies with the class.

- Are these strategies simple and realistic?
- Do these strategies even work? (Werner, 2000, p. 193).

## **Lesson 6**

Have students read pages 138 and 139 on Schools and Toxic Waste in their *Social Studies Alive! Our Community and Beyond*. Have students review a list of options for how this environment issue can be addressed.

Divide students up into groups and have them select the best option for how they think they should solve the problem. Have students write a written rap for their solution and present it to the class.

**Student Handout 13.4**

Writing Rap Lyrics

With your group, write a verse for the rap song. Your verse should tell how your group would respond to the situation.

After writing your lyrics, practice reading them with your group. You will perform them for the class.

**Whose Planet Is It?**

Hey, whose planet is it, anyway?  
We need to care about it today.  
There are problems that can be solved.  
All we need to do is to get involved.

Air pollution makes it hard to breathe,  
An oil spill can mess up the seas.  
A toxic waste dump near a school,  
If you lived here, what would you do?

Hey, whose planet is it, anyway?  
We need to care about it today.  
There are problems that can be solved.  
All we need to do is to get involved.

Your group's verse:

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Then have the students read page 140 to 141 in their social studies books so they can identify the actual solution the community reached in their decision.

### **Revamped Lesson 6**

Have students create a list of other environmental problems they see that exist in their community. Have students work in groups of two to research those environmental problems (littering, oil spills, car exhaust, companies dumping pollutants, smoking) in more depth and possible solutions to those problems.

Students may also use *Read Chapter 14 in Social Studies Alive!* On global issues.

Have them create a PowerPoint representation, blog, or TV broadcast. (Whelan, 2006, p. 244). This representation should detail the problem they identify and strategies to solve the problem. (James, 108).

### **Lesson 7**

Read *The Lorax* to students ask them the following questions

- What was the environmental problem?
- Did one side gain from cutting down the trees?
- Why is it a problem when one side gains something and the other side loses something?
- Have the students complete a free-write detailing how they would feel if they were in the book. What changes would you make?

Have students complete the written assessment

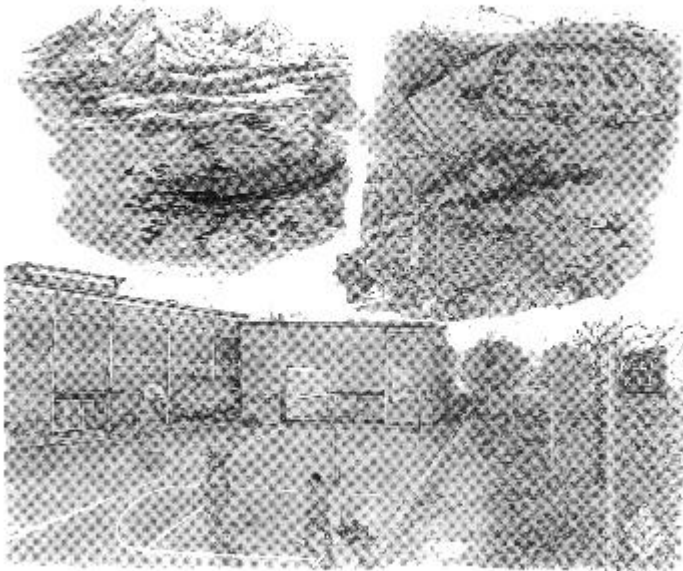
**Assessment****Reading About Pollution**

Read these paragraphs about a big oil spill. Then answer the questions below.

*After the oil spill, people did their best to clean up the mess. Rescuers rushed to save birds and other animals. Thousands of workers began trying to clean up the water and beaches.*

*The best solution to big oil spills is to stop them from happening. So, our government has tried to make sure that companies and their workers act more safely.*

1. What is the best solution to big oil spills?
  - stop putting oil on ships
  - stop them from happening
  - stop using oil
2. What is the government doing to help stop oil spills?
  - making sure that companies act more safely
  - making sure people clean up after an oil spill
  - making sure workers are safe
3. What happened after this oil spill?
  - People ran away.
  - People tried to clean up the mess.
  - People did their best to keep the beaches clean.

**Assessment 13****Showing What You Know**

Look at the picture. Read the questions. Fill in the bubble next to the best answers.

1. What causes air pollution?
  - trees, freeways, and buildings
  - cars, airplanes, and factories
  - cities, freeways, and factories
2. What does a big oil spill pollute?
  - water, fish, birds, and other animals
  - air, land, fish, and cities
  - people, ships, air, and land
3. What is toxic waste?
  - land used for a dump
  - garbage
  - poisonous materials

**Revamped Lesson 7**

Have students share out their presentations to the entire class. Have students raise questions.

## GLCES

Describe ways the natural environment has been changed in their local community and ways the lives of people are affected by the natural environment (II.2.EE.2).

Identify environmental problems in their local community and consider possible solutions (II.2.EE.3).

Suggest ways people can responsibly interact with the environment in the local community (2-G5.0.1).

Describe positive and negative consequences of changing the physical environment of the local community (2-G5.0.2).

Design and participate in community improvement projects that help or inform others (2-C5.0.3).

Participate in projects to help or inform others (2-P4.2.2).

## Resources

Lambert, S. (2010, August 5). *Oil spill cleanup focus: homes near river.*

[Http://www.battlecreekenquirer.com/article/20100805/OILSPILL/8050313/Oil-spill-cleanup-focus-homes-near-river](http://www.battlecreekenquirer.com/article/20100805/OILSPILL/8050313/Oil-spill-cleanup-focus-homes-near-river)

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Dr. Seuss. (1971). *The Lorax*

James, Kai. (1995). *Dear High School Teacher.* Beyond Heroes and Holidays.

Kidsgetaplan. Oil Spill Bird Feather Cleanup Experiment.

<http://www.youtube.com/watch?v=5mW6h0X7uK8&feature=related>

Lawrence, E., Wisely, J., & Snively, B. (2010). *Oil spill near Kalamazoo River causes stench, mess.* <http://www.freep.com/article/20100728/NEWS06/7280352/Oil-spill-near-Kalamazoo-River-causes-stench-mess>

Makeoutcrewart. Battle Creek Oil Spill [http://www.youtube.com/watch?v=1eSGK\\_0Hxnk](http://www.youtube.com/watch?v=1eSGK_0Hxnk)

Science4Kids. ScienceKiddos. Understanding the Gulf Oil Spill part 2.  
<http://www.youtube.com/watch?v=EFtFHCyntnA>

Social Studies Alive: Our Community and Beyond (2003).

Werner, W. (2000). *Reading Authorship Into Texts*.

Werner, W. (2006). *Reading Pictures of People*.

Whelan, M. (2006). *Teaching History: A Constructivist Approach*.