



South Carolina

Full STEAM Ahead:

Connecting Library of Congress Primary Sources and Graphic Novels

Lesson Plan Template

Author(s):

Sabrina Leaphart, Sarah Sorrells

Grade Level(s): 5th Grade

Subject: Science Engineering, Technology, and Applications of Science

Length of Class: 4 days, 45 minutes per day

**Image Citation:**

["Kids in Superhero Capes Salute Earth Day."](#) Gale Elementary Online Collection, Gale, a Cengage Company, 2021. Gale In Context: Elementary, link.gale.com/apps/doc/CPSDBS853499271/ITKE?u=scschools&sid=bookmark-ITKE&xid=9314a8be. Accessed 2 Dec. 2021.

Lesson Title:	Using Science to Protect Earth's Resources and Environment
Overview:	Students will understand their impact on the Earth's resources and environment through primary resources, videos, class discussions, graphic novels, and collecting data.
Learning Objective:	<p>The students will be able to obtain information about ways individual communities use science ideas to protect the Earth's resources and environment.</p> <p>The students will be able to combine information about ways individual communities use science ideas to protect the Earth's resources and environment.</p>
Standards:	5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.
Essential Question:	How do our actions affect the environment, and what can we do to reduce those effects?
Supporting Question(s):	<p>What do humans do that specifically impacts the environment negatively?</p> <p>What action steps can they take to reduce their effects on the environment?</p>
Digital Primary and Secondary Sources:	<ul style="list-style-type: none"> • News Article/Press Release: Riley, B. (n.d.). Library of congress web archives. State of Alabama - Office of Governor Bob Riley. Retrieved December 2, 2021, from https://webarchive.loc.gov/all/20100609004509/http://www.governor.alabama.gov/oilspill/. • Diagram: Parks, Peggy J. "How Pesticides Move Through the Environment." Pesticides, Gale, 2012. Our Environment. Gale In Context: Elementary, link.gale.com/apps/doc/MHJJKQ499882375/ITKE?u=scschools&sid=bookmark-ITKE&xid=14251514. Accessed 2 Dec. 2021. • Video Clip: "Pollution." Impacts on Earth, 18 Oct. 2016. Gale In Context: Elementary, link.gale.com/apps/doc/ZJMMQX290057114/ITKE?u=scschools&sid=bookmark-ITKE&xid=fb201eeb. Accessed 2 Dec. 2021. • Video Clip: "People and Global Warming." Changing Climate, 18 Oct. 2016. Gale In Context: Elementary, link.gale.com/apps/doc/FNGORC436009385/ITKE?u=scschools&sid=bookmark-ITKE&xid=57ecc151. Accessed 2 Dec. 2021.

	<ul style="list-style-type: none"> ● Extension Article: "A close look at the Great Pacific Garbage Patch." KidsPost, 31 Jan. 2013. Gale In Context: Elementary, link.gale.com/apps/doc/A426750403/ITKE?u=scschools&sid=bookmark-ITKE&xid=b572ed48. Accessed 2 Dec. 2021. ● Graphic Novel: Reed, M. K., Oru, N., & Hill, J. D. (2019). <i>Wild weather: Storms, meteorology, and climate</i>. First Second, an imprint of Roaring Brook Press. (one print or digital copy for each student or a pair of students)
Required Classroom Materials:	<p>Students need</p> <ul style="list-style-type: none"> ● chart paper (per group) ● markers ● newspaper article/press release (per pair) ● diagram/picture (per pair) ● video clip ● Storms, Meteorology, and Climate graphic novel (one each or one per pair) pages 81-83, 97-99 ● Digital Graphic organizer shared in Google Classroom (copy here) <p>Teacher needs</p> <ul style="list-style-type: none"> ● computer hooked to large monitor display ● digital assignment shared with students
Classroom Environment:	Students should be in learning groups of 3-4 students, but also able to have space for themselves to independently work. There should be a central location, preferably the front of the room, for students to come and look at primary and secondary sources on a large display board.
Differentiation and Adaptations:	Diagrams, graphic novels, and video clips allow audio and visual learners to access the information. Teachers can read any text for students to allow all students access to the text regardless of the reading level. Giving students a checklist or graphic organizer to guide their thinking is also a great accommodation for learners.

Lesson Sequence/Procedures

Estimated Time Needed	Detailed Description of Teaching and Learning
Day 1 (45 min)	<p>Watch the "Pollution" video clip two times.</p> <ul style="list-style-type: none"> ● 1st watch (no sound and no Closed Caption) <ul style="list-style-type: none"> ○ Students write on chart paper one word reaction. <i>Ex: pollution, disgusting, harmful, effect, destruction.</i> ○ Students share their one word, round robin style ● 2nd watch (with sound and/or Closed Caption)

	<ul style="list-style-type: none"> ○ Students write on chart paper a phrase that reflects what they believe is happening in the video. <i>Ex: People are polluting the Earth.</i> (3-5 words) ○ Students share with their table groups ○ One representative from each table share out to the class their group’s discussion <p>Watch the “People and Global Warming” video clip two times.</p> <ul style="list-style-type: none"> ● 1st watch (no sound and no Closed Caption) <ul style="list-style-type: none"> ○ Students write on chart paper one word reaction. <i>Ex: pollution, disgusting, harmful, effect, destruction, global.</i> ○ Students share their one word, round robin style ● 2nd watch (with sound and/or Closed Caption) <ul style="list-style-type: none"> ○ Students write on chart paper a phrase that reflects what they believe is happening in the video. <i>Ex: People are causing global warming.</i> (3-5 words) ○ Students share with their table groups ○ One representative from each table share out to the class their group’s discussion <p>Respond to the Essential Questions using the digital graphic organizer.</p> <ul style="list-style-type: none"> ● How do our actions affect the environment, and what can we do to reduce those effects?
Day 2 (45 min)	<p>Read the news article</p> <ul style="list-style-type: none"> ● Students will partner read the press release from Governor Bob Riley of Alabama and circle/underline words or phrases that are noteworthy. (adjectives, adverbs, etc.) ● Have students write these words on a piece of chart paper and share their noteworthy words/phrases with the class. ● Have them explain why the words are important in the article/press release and what types of emotions these words and phrases evoke or cause them to have. ● Discuss the impact of the event. <ul style="list-style-type: none"> ○ <i>Ex: The Governor has made a press release, why is this significant?</i> ○ <i>How will the oil spill change the environment?</i> ○ <i>How will it change the water habitat and the land habitat when the oil reaches the shore?</i> <p>Respond to the Essential Questions using the digital graphic organizer.</p> <ul style="list-style-type: none"> ● How do our actions affect the environment, and what can we do to reduce those effects?
Day 3 (45 min)	<p>Observe the diagram</p> <ul style="list-style-type: none"> ● What do you see? ● What does it mean? ● Where would it be used? ● Who is using this diagram? <p>Read graphic novel</p> <ul style="list-style-type: none"> ● Look at pictures ONLY on pages 81-83, 97-99 adding quick sketches or words to the chart paper/graffiti board

	<ul style="list-style-type: none"> • Silently walk around their group’s table and look at what group members shared. • Independently read the graphic novel pages 81-83, 97-99 • Once pairs are finished, discuss what they noticed, adding to the chart paper/graffiti board. • Choose one representative to share with the class for each group <p>Respond to the Essential Questions using the digital graphic organizer.</p> <ul style="list-style-type: none"> • How do our actions affect the environment, and what can we do to reduce those effects?
Day 4 (45 min)	<p>Gather all resources to include, video clips, news article, diagram, graphic novel, and chart paper/graffiti board to help write your response.</p> <p>Using all that you have learned and your answers to the questions below, write a paragraph response including all the resources used.</p> <ul style="list-style-type: none"> • How do our actions affect the environment, and what can we do to reduce those effects? • What do humans do that specifically impacts the environment negatively? • What action steps can they take to reduce their effects on the environment?

Assessments:	<p>Teachers will informally assess students using observations and discussions during group work around the chart paper/graffiti boards. Whole class discussions allow for small groups to learn from other students strengthening their knowledge. Written responses to essential question and supporting questions will be used as a formative assessment to determine any misconceptions or further teaching after the lessons.</p>
Learning Extensions:	<p>ELA Article: “A close look at the Great Pacific Garbage Patch” (Students read and analyze the text from the Washington Post to learn more.)</p> <p>“A close look at the Great Pacific Garbage Patch.” KidsPost, 31 Jan. 2013. Gale In Context: Elementary, link.gale.com/apps/doc/A426750403/ITKE?u=scschools&sid=bookmark-ITKE&xid=b572ed48. Accessed 2 Dec. 2021.</p> <p>Students can write a reflection based on the two articles using one of the following text structures: cause and effect, compare and contrast, or problem and solution.</p>