

REACH COMMUNITY PROJECT RESEARCH PRACTICE

Final Unit: Community Project
Grades K-3
INSTRUCTIONS



Overview

In this lesson students learn more about “The Three Rs - Reduce, Reuse, Recycle” through a guided activity. Students will obtain information from a book and a website.

Conducting research is a skill that must be taught. Comprehension of nonfiction writing is an important skill, and students need practice to become familiar with the layout of informational texts. Also, technology is a fun and engaging way for students to explore new topics. However, students should not be “turned loose” on the Internet.

Objectives

On successful completion of this lesson, students will be able to:

- define the vocabulary term research;
- give two examples of sources; and
- explain why it is important to reduce, reuse, and recycle resources.

Alaska Standards

Anchor Standards for Writing Grades K-12

Research to Build and Present Knowledge

- Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. (W.7)

Anchor Standards for Speaking and Listening Grades K-12

Presentation of Knowledge and Ideas

- Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and that the organization, development, and style are appropriate to task, purpose, and audience. (SL.4)
- Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations. (SL.5)
- Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate. (SL.6)

Materials

- Computers with Internet access
- Student Worksheet: Book Quest
- Student Worksheet: WebQuest



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- Books
 - Kindergarten - *'Where Does the Garbage Go?'* by Paul Showers
 - 1st grade - HSP I: Chapter 6, Lesson 3
 - 2nd grade - HSP II: Chapter 6, Lesson 3
 - 3rd grade - HSP III: Chapter 8, Lesson 4

Whole Picture

Embodied within Alaska Native values for daily living are a variety of ways that natural resources can be protected. These include: "showing respect," "sharing what you have (taking only what you need)," "living carefully," "taking care of others," and "seeing connections" (ANKN, 2006).

These values represent the belief that the environment is sentient — it is capable of feeling and perceiving. As such, it does not merely provide resources available for taking; rather, "it is responsive to careful [human] action and attention" (Fienup-Riordan, 1994, p.14). As a result, the future availability of resources depends on careful attention to one's own actions and the maintenance of good relations with the spirits of all things.

The Iñupiat and Yup'ik, like other Alaska Native peoples, believe in the recycling of plant and animal spirits. When a plant or animal is taken for harvest, its spirit watches carefully to see that its body is respected and well taken care of. If it likes what it sees, it will tell others of its kind that the people treated it well and they should continue to give themselves. However, if the spirit does not like the way it is treated, it will tell others to avoid these people, and future harvests will be less successful (Barnhardt and Kawagley, 2005; Fienup-Riordan and Rearden, 2012). As such, one way to preserve natural resources is to treat them with honor and respect — this means being judicious in how they are taken, not taking more than is needed, sharing what has been taken, not wasting any part of the harvest, and acting peacefully (Fienup-Riordan, 1994).

These traditional values and ways of living can also be summed up in the concept of the "3Rs — Reduce, Reuse, Recycle."

Reduce

By making choices in the products we buy and reducing the amount we consume, we can reduce our environmental impact. For example, by borrowing from friends and neighbors, renting, or sharing, instead of buying or harvesting something we will only use infrequently, we can reduce the physical amount we consume. By powering down our electronics when not in use, we can reduce the amount of energy we consume. By walking or riding a bike or skateboard, we can reduce the amount of fuel we need. By choosing not to have a bag, or bringing our own bag to the store, we can reduce the amount of plastic that ends up in our landfills.

Reuse

Many times, people choose to dispose of items that could be reused, or up-cycled (made into something else). Coffee tins, shoe boxes, and plastic food containers can be repurposed into



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storage containers for beading supplies, tools, and machine parts. Outgrown clothing can be passed down to younger siblings. Torn clothes can be repaired or turned into other items, like pillowcases, bags, and baskets. Broken machines can be saved, and their parts salvaged for repairing other similar machines.

Recycle

Where facilities exist, many things can be recycled: paper bags, soda cans, and plastic bottles. In remote areas, however, recycling facilities do not exist, and it can be expensive to export collected items for recycling. In these cases, it is important to make wise decisions in the purchases we make; choose to purchase items that are made from recycled materials. Rather than purchasing tissue paper that is made from first generation trees, for example, purchase tissue that is made from recycled papers.

Conserving and protecting our natural resources is important not only so that the resources will be available in the future, and to conserve energy, but also for reasons of cultural value and spiritual importance. Learn from elders and culture bearers in your community what resources are most valuable and what you can do to help preserve them.

Vocabulary

research – what people do in order to look for information about something they want to know more about

source – a person, book, website, etc., that gives information

natural resource – anything from nature that people can use

recycle – to reuse a resource by breaking it down and using it to make a new product

reduce – to use less of a resource

reuse – to use a resource again

Activity Preparation

1. Check to make sure the website links work.
2. Make copies of the Student Worksheets. Note that there are different versions of the Book Quest worksheet for the different grade levels.

Activity Procedure

1. Introduce the vocabulary words research and source. Lead a discussion about why it is important for a scientist to conduct research at the beginning of a project.
2. Review the terms natural resource, and why it is important to conserve resources.
3. Explain the students will be doing their own research about “The Three Rs”. They will use two sources: a book and a website.
4. For the Book Quest activity: distribute books and worksheets. With Kindergarteners,



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you will probably want to read aloud the book to the whole group. For 1st through 3rd graders, students should be put into groups of three. Guide the students through completing the worksheet.

5. For the WebQuest activity: distribute worksheets and then help students to get logged on to their computers and to open a browser window. You may also want to display the worksheet on a projector, and/or display the Alaska Department of Environmental Conservation webpage. Guide the students through completing the worksheet.
6. Conclude the lesson by brainstorming the unique ways people reduce, reuse, and recycle in the community.

Extension Activities

- Invite an employee of your community's facility services department to visit the class. Have him or her discuss how waste is handled in your community and explain where the active landfill is located.
- Invite a local elder or cultural knowledge bearer to visit the class. Ask him or her to discuss the traditional ways people used resources wisely and avoided excess waste.
- Read aloud *'Stuff!: Reduce, Reuse, Recycle'* by Steven Kroll

Answers

For the Student Worksheet: Book Quest - Kindergarten, answers will vary. Answer Keys are provided for Book Quest - 1st Grade through 3rd Grade. For the Student Worksheet: WebQuest, answers will vary based on your community.

References

- Alaska Native Knowledge Network (ANKN). (2006). Alaska Native Values for Curriculum. Accessed from: <http://ankn.uaf.edu/ancr/Values/index.html>.
- Core Knowledge National Conference, 2004. "First Graders Can Research Too! Learning About Scientists Through Research" lesson plan. Accessed November 2015: http://www.coreknowledge.org/mimik/mimik_uploads/lesson_plans/526/First%20Graders%20Can%20Research%20Too%20Learning%20About%20Scientists%20Through%20Research.pdf.
- Fienup-Riordan, Ann. (1994). Boundaries and Passages: Rule and Ritual in Yup'ik Eskimo Oral Tradition. Norman and London, University of Oklahoma Press.
- Fienup-Riordan, Ann, and Alice Rearden. (2012) Ellavut: Our Yup'ik World and Weather. Continuity and change on the Bearing Sea Coast. Seattle and London: University of Washington Press.
- Kawagley, Angayuqaq Oscar (2006). A Yupiaq Worldview: A Pathway to Ecology and Spirit. Long Grove: Waveland Press.



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Kawagley, Angayuqaq Oscar, Norris-Tull, Delena, & Norris-Tull, Roger A. (2010). "The Indigenous Worldview of Yupiaq Culture." In R. Barnhardt & A. Kawagley (Eds.), *Alaska Native Education: Views from Within* (219–235). Fairbanks: Alaska Native Knowledge Network.

State of Alaska, Department of Environmental Conservation, Solid Waste Program. "Waste in Rural Alaska". Accessed November 2015: <http://dec.alaska.gov/eh/sw/RuralAK.htm>





Answers for Student Worksheet: Book Quest – 1st Grade

- Group Members** 1. _____
2. _____
3. _____

Answer the first two questions together as a group:

1. Open the science textbook to page 242. This is the start of Chapter 6. What is the title of Chapter 6?

_____ Natural _____ Resources _____

2. Turn the pages until you find the beginning of Lesson 3, "How Can We Protect Natural Resources?" On what page does Lesson 3 start?

_____ 262 _____

Group Member #1

3. On what page can you learn more about how to reduce? _____ 268 _____
4. Draw and label a picture that shows a way you can reduce:

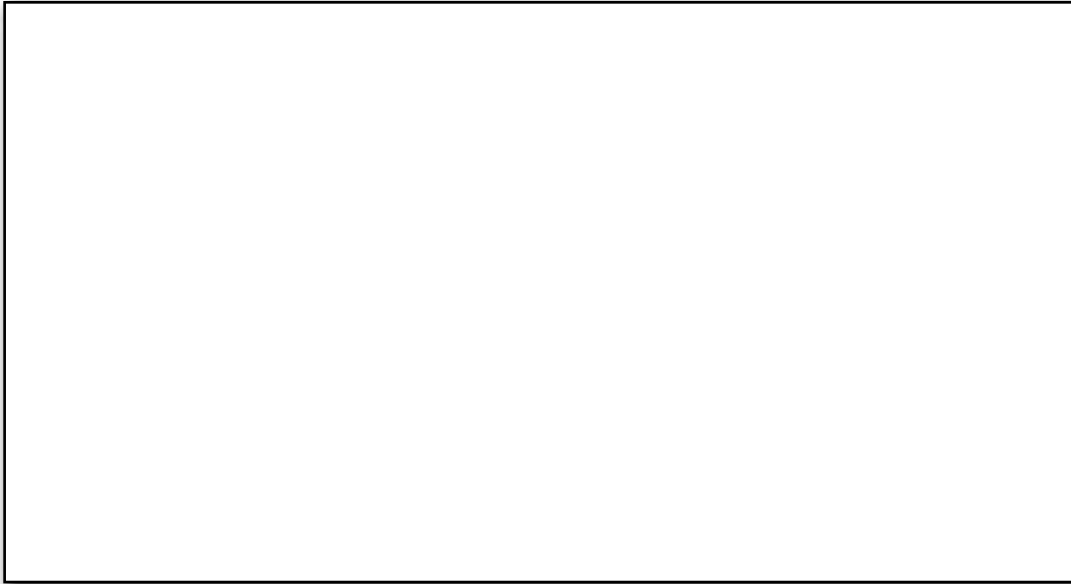




Answers for Student Worksheet: Book Quest – 1st Grade

Group Member #2

5. On what page can you learn more about how to reuse? 269
6. Draw and label a picture that shows a way you can reuse:



Group Member #3

7. On what page can you learn more about how to recycle? 269
8. Draw and label a picture that shows a way you can recycle:



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ANSWER KEY



Answers for Student Worksheet: Book Quest – 2nd Grade

- Group Members**
1. _____
 2. _____
 3. _____

Answer the first two questions together as a group:

1. Open the science textbook to page 230. This is the start of Chapter 6. What is the title of Chapter 6?

_____ Natural _____ Resources _____

2. Turn the pages until you find the beginning of Lesson 3, "How Can People Protect Natural Resources?" On what page does Lesson 3 start?

_____ 254 _____

Group Member #1

3. Write the definition of reduce. _____ To reduce is to use less of a resource _____

4. On what page can you learn more about how to reduce? _____ 258 _____

5. Draw and label a picture that shows a way you can reduce:

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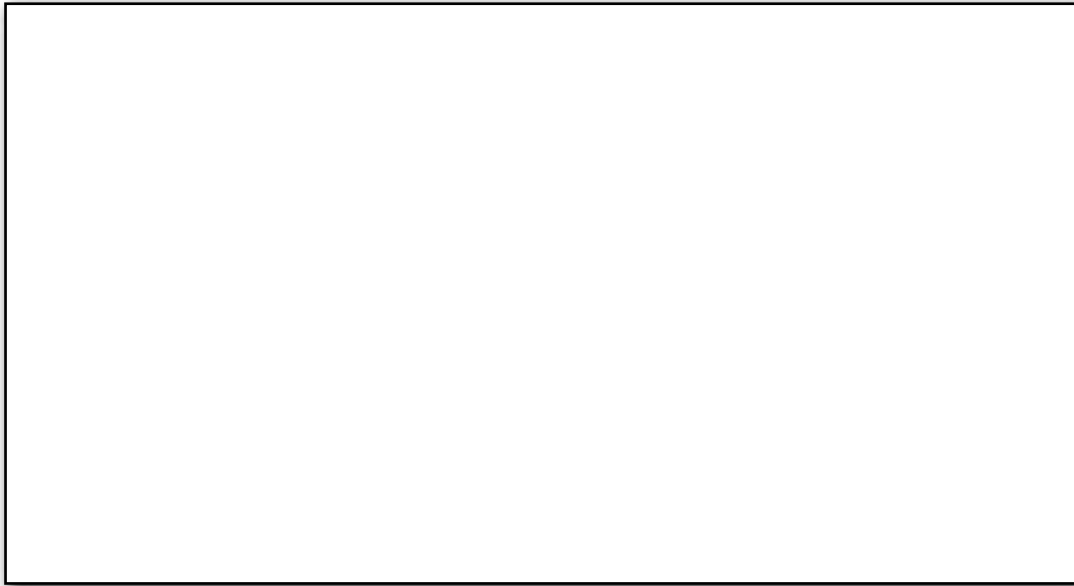
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ANSWER KEY



Answers for Student Worksheet: Book Quest – 2nd Grade

Group Member #2

6. Write the definition of reuse. _____ To reuse is to use a resource again. _____
7. On what page can you learn more about how to reuse? _____ 258 _____
8. Draw and label a picture that shows a way you can reuse:



Group Member #3

9. Write the definition of recycle: _____ To recycle is to use the materials in old things to make new things. _____
10. On what page can you learn more about how to recycle? _____ 259 _____
11. Draw and label a picture that shows a way you can recycle:



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ANSWER KEY



Answers for Student Worksheet: Book Quest– 3rd Grade

Group Members

1. _____
2. _____
3. _____

Answer the first two questions together as a group:

1. Open the science textbook to page 316. This is the start of Chapter 8. What is the title of Chapter 8?

_____ Conserving _____ Resources _____

2. Turn the pages until you find the beginning of Lesson 4, "How Can Resources Be Used Wisely?" On what page does Lesson 4 start?

_____ 348 _____

Group Member #1

3. Write the definition of reduce: _____ To use less of a resource _____
4. On what page can you learn more about how to reduce? _____ 354 _____
5. Draw and label a picture that shows a way you can reduce:

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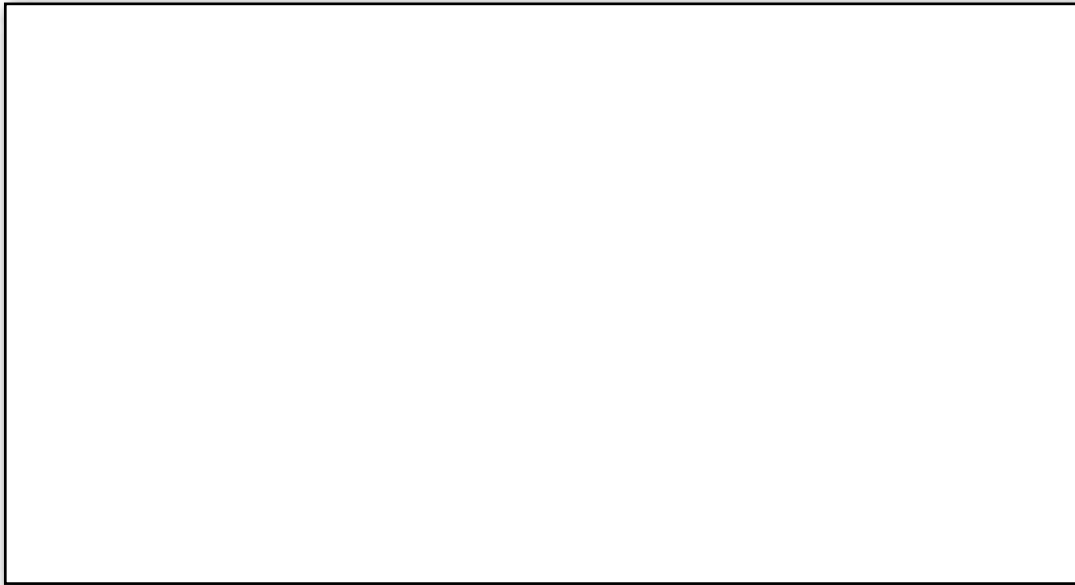
Grade K-3
ANSWER KEY



Answers for Student Worksheet: Book Quest – 3rd Grade

Group Member #2

6. Write the definition of reuse. _____ To use a resource again and again _____
7. On what page can you learn more about how to reuse? _____ 355 _____
8. Draw and label a picture that shows a way you can reuse:



Group Member #3

9. Write the definition of recycle. _____ to reuse a resource by breaking it down and using it to make a new product _____
10. On what page can you learn more about how to recycle? _____ 356 _____
11. Draw and label a picture that shows a way you can recycle:





Student Worksheet: Book Quest – Kindergarten

1. Read *“Where Does the Garbage Go?”*, or have someone read it to you. Draw two pictures:

Draw a picture of what people do with their garbage in a big city.

Draw a picture of what people do with their garbage in your village.





Answers for Student Worksheet: Book Quest – 1st Grade

- Group Members** 1. _____
2. _____
3. _____

Answer the first two questions together as a group:

1. Open the science textbook to page 242. This is the start of Chapter 6. What is the title of Chapter 6?

2. Turn the pages until you find the beginning of Lesson 3, "How Can We Protect Natural Resources?" On what page does Lesson 3 start?

Group Member #1

3. On what page can you learn more about how to reduce? _____
4. Draw and label a picture that shows a way you can reduce:



Answers for Student Worksheet: Book Quest – 1st Grade

Group Member #2

5. On what page can you learn more about how to reuse? _____
6. Draw and label a picture that shows a way you can reuse:

Group Member #3

7. On what page can you learn more about how to recycle? _____
8. Draw and label a picture that shows a way you can recycle:



Answers for Student Worksheet: Book Quest – 2nd Grade

- Group Members**
1. _____
 2. _____
 3. _____

Answer the first two questions together as a group:

1. Open the science textbook to page 230. This is the start of Chapter 6. What is the title of Chapter 6?

2. Turn the pages until you find the beginning of Lesson 3, "How Can People Protect Natural Resources?" On what page does Lesson 3 start?

Group Member #1

3. Write the definition of reduce. _____

4. On what page can you learn more about how to reduce? _____
5. Draw and label a picture that shows a way you can reduce:



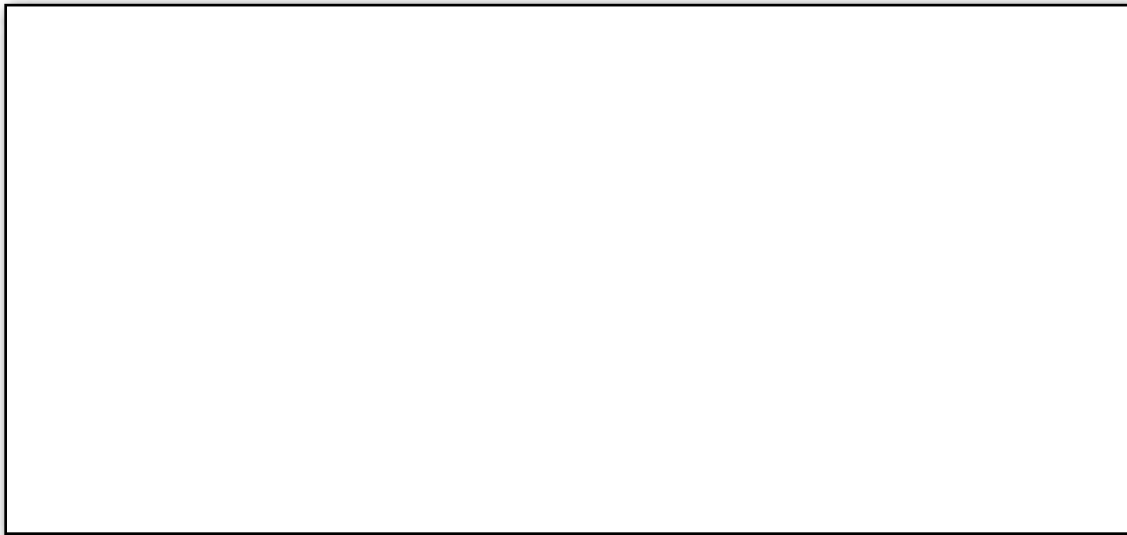
Answers for Student Worksheet: Book Quest – 2nd Grade

Group Member #2

Write the definition of reuse. _____

6. On what page can you learn more about how to reuse? _____

7. Draw and label a picture that shows a way you can reuse:



Group Member #3

8. Write the definition of recycle: _____

9. On what page can you learn more about how to recycle? _____

10. Draw and label a picture that shows a way you can recycle:





Answers for Student Worksheet: Book Quest– 3rd Grade

- Group Members**
1. _____
 2. _____
 3. _____

Answer the first two questions together as a group:

1. Open the science textbook to page 316. This is the start of Chapter 8. What is the title of Chapter 8?

2. Turn the pages until you find the beginning of Lesson 4, "How Can Resources Be Used Wisely?" On what page does Lesson 4 start?

Group Member #1

3. Write the definition of reduce: _____
4. On what page can you learn more about how to reduce? _____
5. Draw and label a picture that shows a way you can reduce:



Answers for Student Worksheet: Book Quest – 3rd Grade

Group Member #2

6. Write the definition of reuse. _____

7. On what page can you learn more about how to reuse? _____
8. Draw and label a picture that shows a way you can reuse:

Group Member #3

9. Write the definition of recycle. _____ to reuse a resource by breaking it down and using it to make a new product
10. On what page can you learn more about how to recycle? _____ 356 _____
11. Draw and label a picture that shows a way you can recycle:





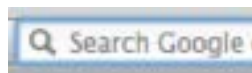
Student Worksheet: WebQuest – Grades K-3

Directions: Your teacher will give you access to a computer to complete this WebQuest assignment. Follow your teacher’s directions for using the computer.

1. Open an Internet browser. Circle the name and icon for the Internet browser you used:

Safari	Chrome	Other
Firefox	Google	

2. Find the search bar:



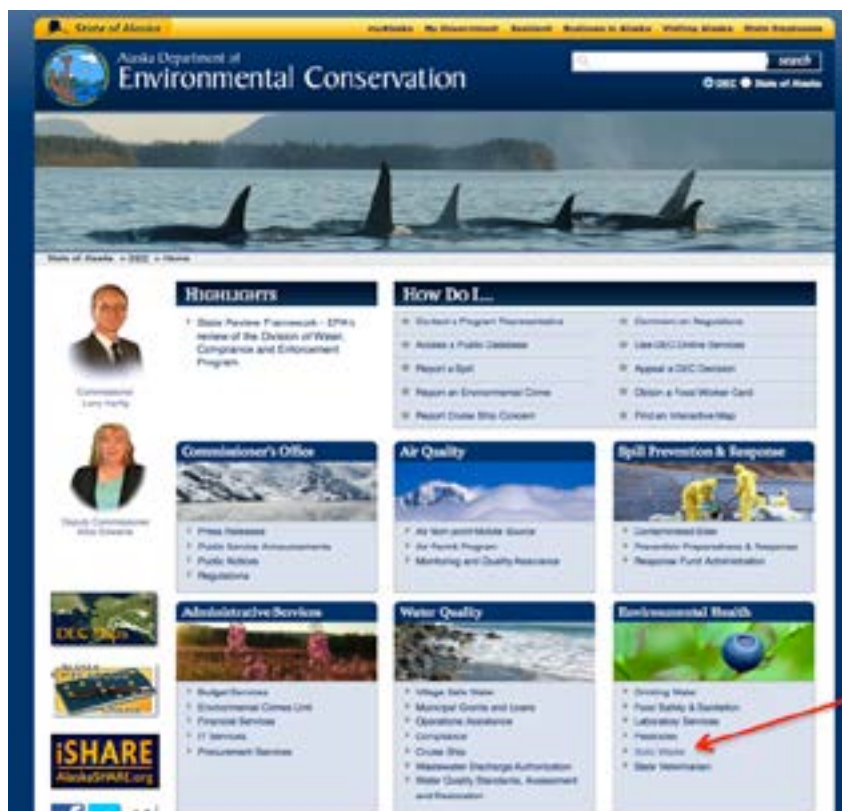
Type: dec ak

DEC stands for “Department of Environmental Conservation” and AK stands for “Alaska”.

This should bring up a list of different webpages. Click on the DEC Home site.



3. Find the section with the subtitle “Environmental Health”. Click on “Solid Waste”.



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STUDENT WORK



4. Look for the heading "Find Solid Waste Sites". You can click on either the words or the icon.



5. Read the bold print. What does WEAR stand for?

6. On this page, you can choose:

- Search Solid Waste and WEAR sites
(Under "Query", type the name of your village, then click "Search".)
- List of All Sites
(Villages and cities are listed in alphabetical order. Look for the name of your village.)

7. What is the name of your village? _____

8. How many waste sites does your village have? _____

