

## **Title: Trash Talkin'**

### **Sub-Strand: D—Interconnections**

**Standard:** The student will be able to describe how humans influence the environment and in turn are influenced by it.

**Benchmark 2:** Students will analyze the advantages and drawbacks of several common proposals to change the human use of environmental resources.

**Grade Level:** 9-12.

**Overview:** Students will study recycling at several scales, including local, state, national and global. Students will learn hands-on ways they can “think globally and act locally” when it comes to their environment.

**Time:** 3-5 days, depending on whether you incorporate a tour, guest speaker or alternative assessment assignment.

**Subjects:** Human Geography, Environmental Science.

### **Required Materials:**

1. **Internet access** or copies of the information from <http://www.co.ramsey.mn.us/recovery/Where.asp> (*Where Does Your Garbage Go?*); [http://www.co.ramsey.mn.us/recovery/where\\_does\\_your\\_garbage\\_go.asp](http://www.co.ramsey.mn.us/recovery/where_does_your_garbage_go.asp) (*List of local haulers*);
2. **Attachments: 1** (school survey); **2** (community survey); **3** (global energy consumption assignment); **4** (poster assignment) and **5**. (Degree of Impact cards for poster assignment); **6** (10-point quiz to use as a pre/post activity)
3. *The Basics of Population Education* article found at Population Connection <http://www.populationconnection.org> . **Click** on “Complete List of Population Connection Publications” – then, **click** on “Population Education Materials for Teachers and Kids” – from there, **click** on “Activities for free download” to get to PDF file that can be printed or downloaded.

### **Objectives:**

- A. To make students aware of recycling/re-use/reduce efforts and policies:

1. in their school and community
2. at the county/state level
3. nationally
4. internationally

**B.** Students will complete a written test or produce a map or a poster as a final product. (poster assignment is outlined in **Attachments 4 & 5**)

**Suggested Procedure (Pedagogy): This assignment can run 3-5 days, depending on whether you tour a facility or include the poster assignment.**

**Day One (one 55-minute class period with outside data gathering)**

Begin by having students take the quick 10-point “quiz” (see **Attachment 6**) to gauge their knowledge of recycling efforts at school and in the community. Talk about their prior knowledge concerning recycling in their school and the community. They can check this information against what they learn over the next few days. Use the School-wide survey (see **Attachment 1**) and the Local survey (see **Attachment 2**) to assess current recycling practices at the school and in the local community. Depending on the interest level and time available, this can be done briefly in one class period or spread over two days. Tweak the surveys to suit your needs or have students develop their own and then show them **Attachment 1** and/or **2** as a means to compare.

**Day Two** – Look at the current article, *Where Does Your Garbage Go*, (<http://www.co.ramsey.mn.us/recovery/Where.asp>) Have students look up where their family’s trash hauler takes their waste. Talk about the recycling efforts at your school and in your city. Use the Green Guardian website (<http://www.greenguardian.com/>) to look at what to do with hard-to-recycle items.

**Day Three** - After assessing school/local resource recovery programs, expand the debate to energy consumption/production around the world. Use any human geography text for applicable information; they each cover the topic area. Have students complete the global energy production/consumption assignment. (**Attachment 3**) Discuss the assignment questions as a whole group; or in small groups that then report back to the whole group. Or, the students could map the resulting spatial distribution of production/consumption.

**Day Four (optional)** – Tour the Newport Resource Recovery Facility or bring in their “trash trunk”(<http://www.co.ramsey.mn.us/recovery/>) or bring in a speaker from the community.

### **Closing – (one 55-minute period)**

Depending on the preferred assessment model, students could either complete a written test or an alternative assessment, such as a poster or a map. Perhaps, the assessment could be developing an action plan for recycling efforts within the school.

**Suggested Assessment:** Trash Talkin' Quiz (**Attachment 6**) or one of the alternative assessments listed above in the closing.

## **RESOURCES**

### **National Geography Standards**

#### **ENVIRONMENT AND SOCIETY:**

**STANDARD 14:** How human actions modify the physical environment.

### **Supplemental Web Links for Teachers and Students**

<http://www.co.ramsey.mn.us/recovery/> Homepage of Newport's Resource Recovery Facility which services Ramsey and Washington counties. Easy access information on setting up a tour of the facility (they have money to pay for your bus!) or they have trash trunks available for you to use in the classroom, if you prefer. Have students find out whether or not their family's garbage collector brings their trash to Newport.

<http://www.spnec.org/> Homepage for the St. Paul Neighborhood Energy Consortium, or NEC, which used to run St. Paul's recycling program. Currently, the NEC focuses its' efforts on education about energy efficiency, especially those that are "cleaner and greener." Check out "hOur Car," the latest effort in reducing the number of automobiles on the road – coming soon to a city near you!

<http://www.greenguardian.com/> Homepage of Green Guardian, which is a help site for the 6 county Metro area, (Anoka, Carver, Dakota, Hennepin, Ramsey and Washington.) Great overview in FAQs re: where our trash goes, how to reduce, recycle and reuse and where to bring hard-to-recycle-items like computers, latex paint, etc.

<http://eurekarecycling.org/> Homepage of Eureka Recycling, the non-profit organization that handles curbside pick-up in St. Paul

<http://www.nrc-recycle.org/> Homepage of the National Recycling Coalition, or NRC. It is a non-profit organization with good national links to all kinds of recycling, re-use and reduction information.

<http://www.eia.doe.gov> This is the homepage of the Department of Energy's "Energy Information Administration." These are the official energy statistics of the U. S. government.

**Extension Activities**

"Degree of Impact Cards" poster assignment, Resource Recovery Facility tour

**Credits**

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