

Illustration by Linnea Lieth, McDougle Middle School

□ A BIG SWEEP MIDDLE SCHOOL TEACHER'S GUIDE □

NORTH CAROLINA  
**big sweep**

ARE YOU **BIG** ON A LITTER-FREE ENVIRONMENT?

# CORRELATION GUIDE FOR UNDERCURRENTS

Teachers' Goals & Objectives	Traveler's Eyes	Life Lessons	Trashy Triangle	Trashy Toxins	Trashy Ending	Litter Impact	Bin Missin'	Data	Understanding Behaviors	Future Trash
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## 6th Grade

Science	1.08, 1.10, 7.04	1.08, 1.10, 7.04	1.05, 1.08, 1.09, 1.10, 2.202, 7.04	1.05, 1.06, 1.08, 7.04	1.04, 1.05, 1.09, 7.04	1.08, 1.09, 1.10, 2.02, 7.04	1.05, 1.06, 1.08, 1.09, 7.04	1.09, 1.10, 7.04	1.05, 1.06, 1.07, 7.04	1.08, 1.09, 1.10, 2.02, 7.04
Language Arts	1.02, 1.03, 1.04, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 2.01, 6.01	6.01	2.01, 2.02, 6.01	1.02, 2.01, 6.01	2.01, 2.02, 6.01
Healthful Living	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11
Information Skills	1.01, 5.01, 5.02	1.01, 1.09, 4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 5.01, 5.02, 5.03	1.01, 3.01, 3.02, 3.03, 3.05	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	5.01, 5.02, 5.03, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.03, 5.04
Math			1.02							

## 7th Grade

Science	1.08, 1.10	1.08, 1.10	1.09, 1.10, 2.02	1.05, 1.06, 1.08	1.04, 1.05, 1.09	1.08, 1.09, 1.10, 2.02	1.05, 1.06, 1.08, 1.09	1.09, 1.10	1.05, 1.06, 1.07	1.08, 1.09, 1.10, 2.02
Language Arts	1.02, 1.03, 1.04, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 2.01, 6.01	6.01	2.01, 2.02, 6.01	1.02, 2.01, 6.01	2.01, 2.02, 6.01
Healthful Living	2.04	2.04	2.04	2.04		2.04	2.04	2.04		2.04
Information Skills	1.01, 5.01, 5.02	1.01, 1.09, 4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 5.01, 5.02, 5.03	1.01, 3.01, 3.02, 3.03, 3.05	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	5.01, 5.02, 5.03, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.03, 5.04
Math			1.01,401				1.01, 4.01, 4.02	4.01		

## 8th Grade

Science	1.08, 1.10, 3.07, 3.08	1.08, 1.10, 3.07, 3.08	1.05, 1.08, 1.09, 2.02	1.05, 1.06, 1.08, 3.07, 3.08, 4.08, 4.09		1.08, 1.09, 1.10, 2.02	1.05, 1.06, 1.08, 1.09, 3.08	1.09, 1.10, 3.06, 3.07, 3.08	1.08, 1.06, 1.07	1.08, 1.09, 1.10, 2.02, 3.07, 3.08, 4.08
Language Arts	1.02, 1.03, 1.04, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 1.03, 2.01, 6.01	1.02, 2.01, 6.01	6.01	2.01, 2.02, 6.01	1.02, 2.01, 6.01	2.01, 2.02, 6.01
Healthful Living	2.09	2.09	2.09	2.08, 2.09	2.09	2.09	2.09	2.09	2.09	2.09
Information Skills	1.01, 5.01, 5.02	1.01, 1.09, 4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 5.01, 5.02, 5.03	1.01, 3.01, 3.02, 3.03, 3.05	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	5.01, 5.02, 5.03, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.04	4.01, 4.02, 4.03, 4.05, 4.07, 4.08, 4.09, 4.10, 5.01, 5.02, 5.03, 5.04
Math							4.01	4.01		

# UNDERCURRENTS

## A BIG SWEEP MIDDLE SCHOOL TEACHER'S GUIDE

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NORTH CAROLINA  
**bigssweep**  
ARE YOU **BIG** ON A LITTER-FREE ENVIRONMENT?

## ACKNOWLEDGMENTS

Creating a sequel to our two nationally recognized teacher activity books, *Splish Splash* and *Ripples* — both of which have been recommended for teachers by the Ocean Conservancy — has been a daunting task. It would not have been possible without the creative input of Lynne Tesh Gronback and Clara Stallings and the financial assistance of our valued corporate sponsor, GlaxoSmithKline.

In addition, we would be remiss if we didn't acknowledge North Carolina Sea Grant — not only for inspiring thousands of North Carolinians to be better stewards of our environment — but also for providing invaluable technical assistance in our educational materials, including our newest teacher activity book *Undercurrents*. We would especially like to thank Terri Kirby Hathaway of North Carolina Sea Grant, Sheila Jones of Wake County Soil & Water Conservation and Lois Nixon of Environmental Education of North Carolina, for reviewing the activity book and Ann Green of North Carolina Sea Grant for editing the publication. We also would like to thank Linnea Lieth of McDougle Middle School in Chapel Hill, Elizabeth Phillips and Natalie Zimmer of Heritage Middle School in Wake Forest, Matthew Uehling of Culbreth Middle School in Chapel Hill, and Kelly Zahos of St. Michael's School in Cary for their illustrations.

To find out more about North Carolina Big Sweep activities and how to volunteer for a litter cleanup, visit the Big Sweep Web site: [www.ncbigssweep.org](http://www.ncbigssweep.org), contact your county coordinator listed on the web, or call 800/27-SWEEP. Please share your suggestions and comments with us by writing to: N.C. Big Sweep, PO Box 126, Zebulon, NC 27597; or e-mail, [ncbigssweep@bellsouth.net](mailto:ncbigssweep@bellsouth.net).

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# INTRODUCTION

Over the past two decades, North Carolina Big Sweep volunteers have picked up more than 8.5 million pounds of litter in North Carolina's watersheds. Although that is a huge amount of litter, everyone — from the mountains to the piedmont to the coast — needs to be a good environmental steward to maintain a clean and healthy environment in our state.

## Founding of North Carolina Big Sweep

Lundie Spence, a North Carolina Sea Grant marine education specialist, founded Beach Sweep in 1987. Two years later, the organization was renamed North Carolina Big Sweep. During the first year, the cleanup was confined to the coast, attracting more than 1,000 volunteers who collected more than 14 tons of debris. In 1989, the private-public partnership became Big Sweep, the nation's first statewide waterway cleanup. Since then, more than 250,000 Big Sweep volunteers have participated in the massive statewide cleanup.

North Carolina Big Sweep is involved in several stewardship projects, including Plus-One Boating — which encourages boaters to take their trash and one other piece of trash home with them. It also includes the Marina Monofilament Line Recycling Project, in which citizens make containers out of PVC pipes to use for recycling monofilament fishing lines at piers and marinas. In addition, Big Sweep volunteers have been making presentations to civic organizations and businesses and sharing information at various festivals across the state.

To educate young people about good stewardship, Big Sweep sponsors an annual poster and T-shirt contest for children in kindergarten through high school. It also provides a variety of educational resources, including activity books for teachers, educational posters and brochures and six-pack ring recycling trees for schools. Two teacher activity books — *Splish Splash* for grades K-3 and *Ripples* for grades 4 and 5 — have received national attention for their content and being user-friendly.

## Using Undercurrents

*Undercurrents: A Big Sweep Middle School Teacher's Guide* is Big Sweep's newest publication. It includes a collection of 11 litter awareness lessons that were written and compiled by Lynne Tesh Gronback and Clara Stallings, two gifted North Carolina teachers. The lessons have been correlated with the N.C. Department of Public Instruction's goals and objectives for the sixth, seventh and eighth grades. The litter lessons also match various science, math, healthful living, language arts and information skills. See the *Undercurrents'* inside cover for a complete correlation guide that includes several litter awareness lessons.

The *Undercurrents* lessons should provide teachers with many useful activities that can be shared with students. The guide also includes material on trashy toxins, which are released from some chemicals, as well as heavy metals and contaminated water and soil that is disposed of improperly or dumped as litter. Students also can learn how to find Big Sweep and other litter data on the internet, and they can develop an understanding of littering behaviors.

# CHAPTER 1: LITTER AWARENESS



Illustration by Elizabeth Phillips, Heritage Middle School

# THROUGH THE EYES OF THE TRAVELER

**OBJECTIVE:** To learn about litter impact in the natural world.

Share the following three stories with your students. Discuss the questions that follow each situation. After a classroom discussion or seminar, have students write a reflection on litter impact in the natural world.

## **STORY 1: BIRD SHOALS**

### **The Coast of North Carolina**

Just two weeks ago, I was walking along Bird Shoals, a small island that frames the Beaufort waterfront. The shoals serve as a nesting ground for several coastal birds. Walking along the side of the island that faces Beaufort Inlet, I noticed signs that were marked “protected areas for the birds to nest.” Shells crunched underfoot as I walked along the sand. The low energy waves delivered a variety of sea treasures to the shoal shores, making it a dedicated walk.

Unfortunately, as I approached the protected areas, I began to see glass beer bottles, plastic drink containers, cigarette butts, empty flare canisters, and a number of torn plastic grocery bags littering the birds’ nesting area. I was walking with a wonderful group of elementary teachers. We got out a trash bag and began to collect the unsightly trash as we walked down the beach. We filled a black trash bag that must have weighed close to 30 pounds. It was disturbing to us that people could be so careless.

### **QUESTIONS TO CONSIDER:**

- What if the trash had not been picked up?
- What are some of the consequences of trash in the bird nesting areas?
- Why did these teachers pick up the trash left by others?
- Why do others litter?
- How would you convince people that litter has no place in this special area on the North Carolina coast?
- What local resources (people & places) could you use to share a compelling message with coastal residents and visitors?

*Note: This is an example of a slightly fictionalized situation. For a specific example, contact your county government or local newspaper.*



**OBJECTIVE:** To learn about litter impact in the natural world.

## **STORY 2: TOE RIVER Mountains of North Carolina**

The geology students carefully exited the vans to cluster along the shoulder of the road. In a few moments, we would descend the steep incline into the Toe River to look for evidence of past geological events. As we traversed down the river bank, we had to navigate through mounds of scattered trash that were disgusting. Lodged under the low branches of trees were plastic trash bags that had been ripped open by raccoons or other scavenging animals. The contents of the bags revealed plastic diapers, dirty baby wipes, rotten food, glass bottles and metal cans. The smell was nauseating.

As we moved past this unpleasant site, we could see a cook stove partially submerged in the water. The stove was entangled in tree branches and vines. It appeared to have been there a long time. Not too far from the edge of the river was an old Ford. It reminded me of a car my parents had when I was young. There were more garbage bags on the bank. The roads followed the banks of the river and seemed to provide an easy spot to dump trash. Why would people do this? It reminds me of that old song, "Alice's Restaurant." Google it!

I suppose the most distressing situation was the body of a dead opossum tangled amongst the tree branches and hanging into the water. A torn plastic grocery bag was twisted around the animal. I only wished that the poor critter hadn't suffered long. From the looks of things, I think it must have struggled for a long time before collapsing from exhaustion and eventually dying.

### **QUESTIONS TO CONSIDER:**

- What makes people think that throwing trash on the banks above the river has no consequence?
- What toxins did each of the trash sources release into the environment?
- Do you think these geology students picked up the trash?
- What are some safety precautions that need to be taken?
- How would you encourage people not to litter in this special mountain area?
- What local resources (people & places) could be used to share a compelling message with mountain residents and visitors?
- Why hasn't this behavior changed since the song "Alice's Restaurant" was first written — or has it?

*Note: This is an example of a slightly fictionalized situation. For a specific example, contact your county government or local newspaper.*

**OBJECTIVE:** To learn about litter impact in the natural world.

### **STORY 3: OBSERVATIONS MADE AT BOAT RAMP** **Lake in North Carolina**

As we arrived at the marina by boat, we saw heavy traffic out on the lake beyond the bridge. The horizon was dotted by boats with brightly colored sails, Jet Skis zipping across the main channel headed for coves of quieter water, and families aboard pontoon boats who were lazily traversing the waters and headed for an afternoon of fun.

As I walked across the dock to the marina store, I noticed that the pilings around the edge of the cove were littered with foam bait cups and plates from the marina grill. It looked awful, in addition to being a hazard to wildlife. Polystyrene and other plastics stay around for a long time before they become degraded. When I got inside the store, I asked who cleaned up the trash. The man behind the counter said he didn't worry too much about it since the water currents often caused the trash to drift into the next cove. I took that to mean he didn't see the trash as his problem, and he thought it would just disappear. The store clerk's glib response made me think about our personal responsibility to the environment.

#### **QUESTIONS TO CONSIDER:**

- What if the trash that littered the water were made of something different or if the water wasn't littered in the first place?
- What makes someone choose to throw the trash into the water?
- Or not pick trash up if it accidentally blows out into the water?
- How do people develop a sense of personal responsibility towards the environment?
- How does Big Sweep help instill an environmental stewardship ethic?
- Do you have an environmental stewardship ethic?
  - How do you know?
  - What influenced it?
  - How did it form?
  - How do you act on it?
  - How often?
- What would you have done after hearing the store clerk's response?
- Can trash really go "away"?
- Where is "away"?
- Why would someone who doesn't live at the lake pick up trash there?
- Would you?
- Why/why not?

*Note: This is an example of a slightly fictionalized situation. For a specific example, contact your county government or local newspaper.*

# LIFE LESSONS FROM LITTER

**OBJECTIVE:** To improve students' grammar and writing skills while learning about litter.

Use the following article by Michael Medved to activate students' thinking about the problem of litter. Include in the discussion the idea of a litter cycle. For example, the litter cycle of a gum wrapper might be a tree, paper mill, gum factory, grocery store, 6th grade student, schoolyard, and then decomposition. The litter cycle of an aluminum drink can might be bauxite ore in Australia, ship, metal smelting plant, drink manufacturing plant, grocery store, sports concession stand, 8th grade student, football stadium floor trash bin, and landfill without decomposition. In a reading log or science notebook, have students complete the student page. This can be done as an independent assignment or as whole group instruction. When finished, facilitate a seminar on the article.

## QUESTIONS TO CONSIDER:

1. What are the problems associated with littering and who is responsible for them?
2. How is littering monitored and regulated? (Here is a link to the North Carolina litter law: <http://www.ncleg.net/Sessions/2001/Bills/Senate/HTML/S1014v9.html>.) What are the effects of processes and policies already in place?

**After reading the article by Michael Medved on pages 11 & 12, answer the following questions:**

1. What was the main point of the article? (Think globally; act locally.)
2. Do you think Medved should have suggested recycling the littered worksheets rather than putting them in the trash?
3. Would the Medved article have been more useful if he suggested positive actions on his first page, rather than complaining about the problem and not offering solutions? What do you think of his writing technique for getting the attention of his audience?
4. Did Medved do a good job researching his topic or was it based only on his personal opinion and bias? Do you think all of his assertions are accurate?

## **Before reading Michael Medved's article**

Help students improve their grammar and writing skills:

1. **Parts of Speech:** Make cards with the names of the various parts of speech. Divide the class into groups. Give each group one part of speech. Make each group responsible for generating a list of words from the article that might relate to Big Sweep and function as that part of speech. Facilitate a discussion about the importance of word choice.

Adapted from [www.teacherdesk.org/news.html](http://www.teacherdesk.org/news.html)

2. **Predictions:** Based on the title, have students predict what the article is about. Have students record in their journals or notebooks their ideas and what kind of information they expect to learn in the article.

## **After reading Michael Medved's article**

3. **Document Analysis:** See the "student page" for the analysis structure.

***Post seminar/discussion***

Students may choose one of several projects to demonstrate their understanding of the main ideas addressed in the article:

- Write an opinion paper and take a position on a particular aspect of the litter cycle. This must include the human behavior that causes littering.
- Draw a cartoon that illustrates a solution.
- Draw a cartoon that “profiles” a litterbug.
- Write a creative essay from the litter’s point of view.
- Find another article about litter. Compare the two articles and write a comparison paper.



## LIFE LESSONS FROM LITTER

MICHAEL MEDVED

CULTURE CLASH — WORLDNETDAILY ARTICLE — OCT. 14, 2002

You can learn — and teach — crucial life lessons by picking up litter. While television culture fosters a sense of helplessness in the face of the dire threats of a world gone mad, a minor investment of energy in cleaning our own neighborhoods can potently promote personal empowerment.

I made this discovery while indulging a daily idiosyncrasy that amazes my neighbors and embarrasses my children: spending a few minutes each afternoon collecting bits of roadside garbage on the streets around my home. We live in a pleasant, pricey suburb — a self-contained island, in fact — so it makes no sense that cigarette boxes and beer cans and fast-food wrappers should accumulate so rapidly on these otherwise manicured residential thoroughfares. It makes even less sense that most of the privileged people who live here seem oblivious to the mess, jogging past the trash in their fashionable athletic suits, or walking their pedigreed dogs without pausing to pick up water bottles or plastic grocery bags lying on the sidewalks in their path.

The other day, having pulled my car to the side of the street to gather an especially unsightly accumulation of filth, I took special note of some of the paperwork that accompanied the usual potato chip bags and Starbucks cups. Someone had tossed aside an opened piece of correspondence, complete with name and address, from the well-known conservation group the Sierra Club. The form letter began: “Dear Mr. Driscoll — We know from your record of generosity you are concerned about the environment ...” and then went on to solicit funds in the battle to preserve the remote Arctic National Wildlife Reserve from exploitation by oil companies.

I stood there gasping at the startling contrast between the substance of the letter, and the message of its thoughtless and casual deposit on the shoulder of a woody suburban street. On the one hand, the recipient of the letter is notably “concerned about the environment,” and on the other, he thinks nothing of trashing that environment in the very neighborhood in which he lives. He presumably feels more concern for the caribou in Alaska, threatened by oil drilling in desolate tundra he will never visit, than he does for preserving and respecting the surroundings he will probably see every day.

Similar madness turned up at our local middle school, which proudly boasts the highest test scores in the state, but also displays a veritable mountain of litter on the tree-lined avenue leading to its main entrance. Among the sticky wrappers and Pepsi cans I have gathered from this depressing site, I’ve also found discarded curriculum materials — including freshly copied pages about the importance of young people involving themselves in the worldwide struggle for ecological sanity. This award-winning school, in other words, proudly teaches its students about the importance of fighting global warming and the plundering of the Amazonian rain forest, but fails to instill in them the much more attainable goal of depositing used school work sheets into a trash receptacle rather than tossing them on the ground at a bus stop across from campus. This annoying carelessness highlights one of the most depressing and dysfunctional aspects of contemporary culture: the focus on far-away problems over which we have no control rather than attainable goals in our immediate surroundings.

Television (which absorbs more of a typical child’s weekly time than all his classroom work combined) encourages the idea of a menacing world in which environmental degradation, abject

poverty, decaying family life, rampant warmongering and brutal discrimination require sweeping, visionary, global solutions. Since the world's economic, political and cultural establishments offer scant chance for overnight change, there's a natural tendency toward cynicism, despair and the disregard of the power of any individual initiatives. What difference does it make if you throw a Tootsie Roll wrapper in a city park, one might ask, if the whole world will inevitably choke to death on greenhouse gases?

Television enhances ratings, and journalists win admiring attention by grossly exaggerating the dire nature of every threat and the vast scope of every fresh disaster. The more dramatic the danger, the more sweeping and utopian the necessary response — and the more powerless the position of each individual in the grip of purportedly implacable social forces. In truth, however, no worldwide menace prevents us from collecting the litter around our homes, or from employing a similar do-it-yourself approach to every imaginable problem. Whatever the challenge that threatens your well-being, it's counterproductive to depend on top-down change — on almost any issue, you can take the first step on your own. Perhaps the best example of all involves the frustration of so many decent people about the destructive messages from movies, television and other forms of entertainment. To counteract these influences, literally a million or so of our fellow citizens will sign petitions, participate in boycotts, write to congressmen or studio heads, and join various watchdog organizations.

The bad news is that such efforts, however impassioned or well-intentioned, won't redeem the soul of Hollywood or broadcast television. The good news is that you don't have to wait for NBC or Fox to change its schedule, because without delay you can change the schedule of what you watch. Making more discerning choices in the popular culture we consume, and generally disentangling ourselves from TV addiction, can also help to overcome the notion that all our difficulties are vast, remote and impervious to change.

By taking action in the most intimate arenas, we may not affect the instantaneous and radical reform that represents a priority for politicians, pundits and preachers. But the small, accessible steps by ordinary people who determine to improve their lives can also uplift the life of our society, if we'd only take the trouble to turn off the tube and pick up that litter along the way.

Source: [http://www.worldnetdaily.com/news/article.asp?ARTICLE\\_ID=29269](http://www.worldnetdaily.com/news/article.asp?ARTICLE_ID=29269)

Name: \_\_\_\_\_

## Student Page: LIFE LESSONS FROM LITTER

### ***Before reading Michael Medved's Article***

#### **Materials:**

Dictionary

"Culture Clash" by Michael Medved, Oct. 14, 2002, WorldNetDaily article

[http://www.worldnetdaily.com/news/article.asp?ARTICLE\\_ID=29269](http://www.worldnetdaily.com/news/article.asp?ARTICLE_ID=29269)

### **Reading response journals or science notebooks**

1. Scan the article for words that are unfamiliar to you. Record those words and their meanings in your journal.

### ***After reading Michael Medved's article on pages 11 & 12***

2. Answer the questions below in your journal/notebook:
  - a. What was the date of the article?
  - b. Who was the author?
  - c. For whom was the article written?
  - d. What are three things the author said that you think are important?
  - e. Why did the author write this article?
  - f. What evidence helps you to know why the article was written?
  - g. What does the article tell you about people's attitudes towards litter?
  - h. What questions are left unanswered?
  - i. Did the author justify his statements/viewpoints? Did the author cite facts? Were the facts from credible sources? Did the author consider one or more perspectives on litter? Did the author change your mind? Why or why not? Do you always believe everything you read in a newspaper or magazine article? Should you?
3. In your journal, address the "five W's and one H" in the article and imagine that you are a journalist or writer like Rudyard Kipling, British author of prose and verse, 1865-1936. Kipling wrote: *"I keep six honest serving-men (They taught me all I knew); Their names are What and Why and When And How and Where and Who."*

### ***Possible student projects***

Choose a project below.

1. Write an opinion paper where you take a position on a particular aspect of the litter cycle.
2. Draw a cartoon that illustrates a solution. This can be an editorial cartoon or a cartoon strip with several frames.
3. Draw a cartoon that "profiles" a litterbug.
4. Write an essay from the litter's point of view.
5. Find another article about litter. Compare the two articles and write a comparison paper.

# TRASHY TRIANGLE — NOT ANYTHING TO BE PROUD OF...

**OBJECTIVE:** To gain an awareness of litter and where it is often seen.

**QUESTION TO CONSIDER:** What is the relationship of businesses to areas of heavy littering?

## INSTRUCTIONS:

Using either an LCD projector or a transparency of the picture featured in the link below, help students become aware of litter in the Triangle area of North Carolina. Record student responses.

[http://www.newsobserver.com/content/news/20060416\\_trash.jpg](http://www.newsobserver.com/content/news/20060416_trash.jpg)

1. Look at the pictures and read the captions. What can you learn about the areas where the litter is accumulating? How does the appearance of your neighborhood compare to these pictures?
2. After reading the captions, what questions do you have about the litter situation presented here?

How is the N.C. Department of Transportation involving North Carolinians in reducing litter along our state's highways? (Adopt-A-Highway Program, Swat-A-Litterbug Postcard, Litter Sweep)

<http://www.ncdot.org/programs/#EnviroBeautification>

<http://www.claytonnews-star.com/opinion/2004012800553.html>

How is North Carolina Keep America Beautiful engaging volunteers in reducing and preventing litter in our communities and watersheds? (Litter Prevention Contest, Litter Index, Great American Cleanup, etc.)

[http://www.ncdot.org/doh/operations/dp\\_chief\\_eng/roadside/Beautification/America/mission.html](http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/Beautification/America/mission.html)

<http://www.kab.org/programs.asp?id=291&rid=68>

What is North Carolina Big Sweep doing to prevent litter? <http://www.ncbigssweep.org/educate/html>

How can you participate in a North Carolina Big Sweep cleanup?

<http://www.ncbigssweep.org/> and follow link to "how to volunteer."

3. Do you think it is possible that at some point people will not litter? Explain your thoughts.
4. Let's say that people continue to litter. What could be done to reduce the ugly sight of litter? What could be done to reduce or prevent the impacts to the health of the environment and people? What would happen if society does nothing about litter?



5. Currently, we see paper, plastics and metals as common types of litter along the road. What are the litter materials of the future? What were the litter materials of the past? (Hint: What do archaeologists find in trash heaps?) What will archaeologists of the future say when they unearth today's litter? What will their reports say and what impressions will they have of today's society? Do you think it will be positive or negative impressions? Why? How does that impression make you feel? If you don't like that feeling, what can you do as a student in the early 21st century to change this future outcome? Can one person make a difference? Give an example that illustrates your answer.
6. Why do you think people litter? There is research that gives three possible reasons. (See <http://www.kab.org/site/PageServer?pagename=index> and follow links to "litter prevention.") List each reason and tell how Big Sweep or other volunteer cleanups could help resolve or prevent these issues. What else might be needed to prevent littering? Survey your friends to see what they think. You might ask if any of them have ever littered or if they know people who have littered. Ask them why these people littered? Do they match one of the reasons cited in the Keep America Beautiful research?
7. Keep America Beautiful cites studies that say 18% of all littered items end up in our waterways. If litter in the waterways is not picked up during a Big Sweep cleanup, what do you think happens to it?

# TRASHY TRIANGLE TRANSPARENCY

[http://www.newsobserver.com/content/news/20060416\\_trash.jpg](http://www.newsobserver.com/content/news/20060416_trash.jpg)

## THE TRASHY TRIANGLE

Asked to name the Triangle's most-littered spot, more than 100 N&O readers gave dozens of answers. From country lanes to city streets to busy freeways, no corner of the Triangle seems free of litter. "I personally did not think it was the correct question to ask," wrote Jessica Perry of Raleigh. "I think it should have been: What spots in the Triangle are *not* trashy?" Even so, some roads came up again and again, probably in part because of heavy traffic. Here are some of those most commonly cited:

0 in Durham



largest portion of litter is fast-food containers: lids, cups, bags, boxes, napkins. It's very attractive. But I can't say 70 is worse than I-40 85."

thea Pierce, Durham

0 Raleigh Beltline, I-40 to Glenwood Avenue



was especially proud of the pedestrian bridge over the Beltline. But pride turned to embarrassment as I crossed the bridge and looked down on the littered areas below. That may not be the trashiest area in the Triangle, but it has to be one of the ugliest when viewed from that vantage point."

georgie McKenzie, Raleigh

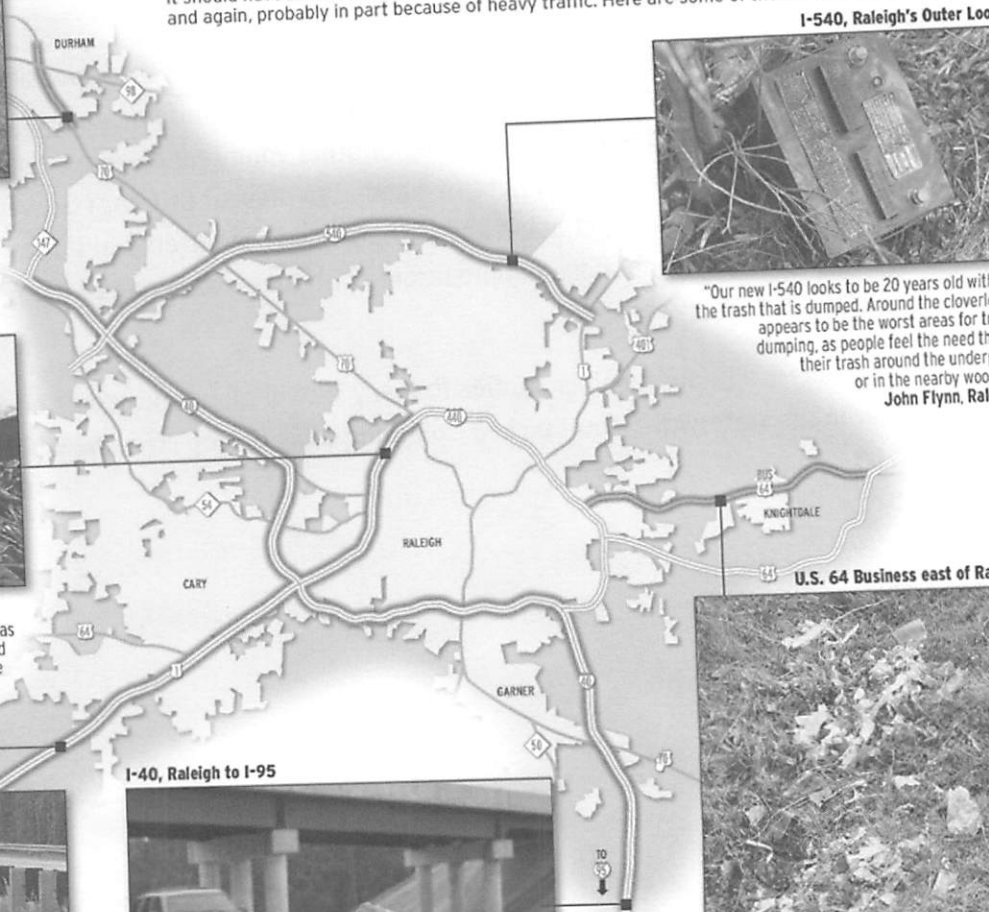
S. 1, Raleigh past Apex



"North Carolina is a beautiful state, but seems to have some of the trashiest highways on the East Coast. One of the trashiest roadways that I've seen is U.S. 1, from Apex to Raleigh."

Peggy Pearce, Apex

Photos by ROBERT WILLET; SUSAN ROEMER



I-540, Raleigh's Outer Loop



"Our new I-540 looks to be 20 years old with all the trash that is dumped. Around the cloverleafs appears to be the worst areas for trash dumping, as people feel the need to throw their trash around the underpass or in the nearby woods."

John Flynn, Raleigh

U.S. 64 Business east of Raleigh



"I would describe the trash situation on highway 64 east as bad and constantly littered with trash. This litter problem is not only on the highway but also on secondary roads of the Triangle."

Susan Roemer, Raleigh

The News & Observer

I-40, Raleigh to I-95



"It is a true embarrassment to drag them through the trash pile that is I-40 through and east of Raleigh. It is unbelievable that people in such a beautiful area supposedly inhabited by relatively well-educated residents would tolerate, much less contribute to, such a miles-long public dumping ground! Disgusting!"

Douglas Knoop, Raleigh