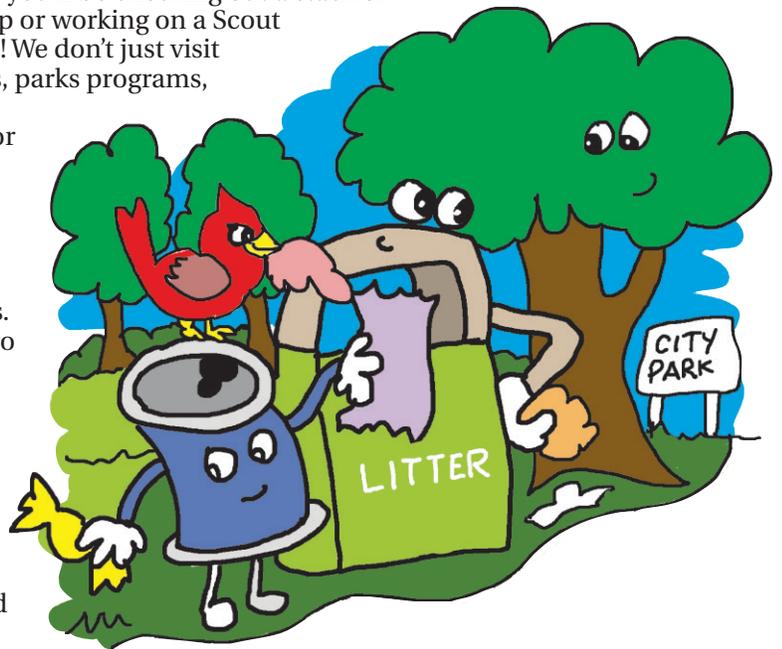


No time for summertime blues

What are your plans this summer? Maybe you'll be playing outdoors, building a fort, kicking around a soccer ball, shooting some hoops, or just watching the clouds. Maybe you'll be checking out a stack of new books from the library. Maybe you'll be going to camp or working on a Scout or 4-H project. Whatever your plans, don't forget about us! We don't just visit schools; we also love to visit Scouts, 4-H clubs, day camps, parks programs, and neighborhood groups. Ask a parent or adult leader to contact Amy Sieferman or Katie Archer at 317-858-6070 for the "Scoop on Summer Fun." Make coffee can ice cream, learn about pop bottle science, create your own paper, or participate in recycling games with us!

You can also join us this summer at the Hendricks County 4-H Fair, July 19-25. Come and test your recycling know-how and ask all of your nagging recycling questions. And don't forget — bring your own reusable water bottle to refill at the water bottle refill station at the Expo Hall.

Your summer break from school is also a great time to try a new project. We have plenty of ideas for fun, hands-on projects. The District has an awesome lending library filled with environmental picture books, activity books, chapter books, reference materials, games, and even a few movies. Turn a neighborhood cleanup into a contest. Create cool, new things from reused or recycled items. Learn to tend a garden or to start backyard composting. To check out materials, call the office to ask about open hours.



Welcome back, Katie!

We are so excited to welcome back a familiar face! Katie Archer is back and will be visiting schools with Miss Amy this summer and next school year. We can't wait to share new, fun, and interactive activities with you! Email asieferman@HendricksSolidWaste.com or karcher@HendricksSolidWaste.com for more information.

Beware and be aware

Household projects sometimes require the use of chemicals that are not safe for disposal in the trash can. These might include unused paint, lawn and garden chemicals, household cleaners, and automotive fluids. In your house, do you know of any of these items that are no longer needed? If so, there's no need to keep storing these chemicals, which might be flammable, poisonous, or corrosive, especially when they're never going to be used.

These chemicals, called household hazardous waste (HHW), need to be disposed properly. HHW is too toxic for the trash!

We have several Tox-Away Days planned where we will accept your HHW, electronics, tires, appliances, and unwanted medications. These are subject to change, so watch our website and social media for updates.

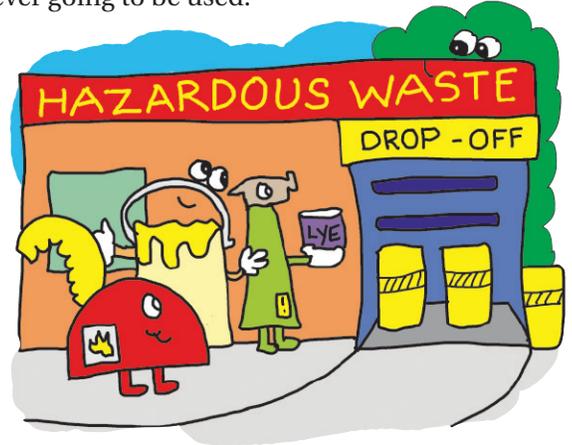
- May 16, 8 a.m. to 1 p.m., Hendricks County Fairgrounds, 1900 E. Main St., Danville (Subject to change)
- July 11, 8 a.m. to 1 p.m., Hickory Elementary School, 907 Avon Ave., Avon
- September 19, 8 a.m. to 1 p.m., Hendricks County Fairgrounds, 1900 E. Main St., Danville
- October 10, 8 a.m. to 1 p.m., Plainfield Middle School, 985 S. Longfellow Lane, Plainfield

Please keep chemicals in their original, labeled containers.

Remember not to mix chemicals together. When loading HHW into your car or van, place items into a cardboard box in the trunk or in the very back of the vehicle, as far away from passengers as possible.

We currently accept the following types of HHW at Tox-Away Days: oil-based paint, paint thinner, antifreeze, old gasoline or kerosene, weed and bug killers, plant foods, tub and tile cleaners, drain cleaners, toilet bowl cleaners, hobby glues, nail polish and remover, fluorescent light tubes and bulbs (like twisty CFLs), and mercury-containing items. There is no charge to drop off HHW. In addition to HHW, we accept unwanted medications, electronics, tires, and appliances. Fees may apply for some appliances, TVs, and tires. Visit www.hendrickssolidwaste.com/programs/tox-away-days for details.

Please tell your family about our HHW drop-off program. If you or your parents have any questions, call our office at 317-858-6070.



Are machines taking over the world?

A machine is made by people to make work easier. For almost as long as humans have existed, they have created machines to help them live more comfortably. How many machines do you have in your home? Maybe your parents have asked you to help with the laundry, the cooking, or the cleaning. If so, then you have spent some time with the clothes washer and dryer, the refrigerator (besides looking for snacks), the stove, and the dishwasher. Did you realize that somewhere in your home, you probably have a hot water heater that provides warm water for washing dishes and yourself? The furnace keeps you warm in winter, and you may have an air conditioner that keeps you cool in the summer. All of these large appliances are machines that are very important in our daily lives, but what happens when one of them is too old to work well or quits working completely?

When it's time to replace an older appliance that still works, there are many organizations that will accept it as a donation to help someone less fortunate. Some of them will even haul old appliances away for free! Your parents may

also choose to sell old appliances to someone. If the machine is no longer working, parts can be recycled in many different ways. The steel can be recycled and used to make new products, of course, but some really creative folks are putting old appliance parts to fun uses. For example, you can bury the inside tub of a washing machine up to the rim to make a great fire pit in the backyard. Old appliance parts can be used to make interesting artwork, too!

We use LOTS of machines to make our lives easier, but we should take care not to waste the materials in them or they may "take over the world" by filling up our landfills. Old appliances do not belong in the trash. Please recycle them at the District's Tox-Away Days. There is a fee of \$5 for appliances without refrigerants,

such as microwaves, blenders, or ovens. For appliances that contain refrigerants, such as refrigerators, freezers, and dehumidifiers, there is a fee of \$10 per item.

The next time you reach into the refrigerator for a yogurt or help fold the laundry, remember that your hard-working machines make life a lot easier. When they are finished doing their jobs, recycle them.



Be clean, be green, be a waste-free machine

We hope the summer months bring you relaxed days of playtime with friends, vacations, camps, visits to grandparents, and family fun. But before you wrap up eLearning on the last day of school, you'll need to clean and organize your school supplies for next year. This year-end cleanup can create mounds of waste, but it doesn't have to be that way. Let's explore ideas about how to reduce waste, recycle old items, and reuse supplies for a greener end to the school year.



There will be trash to throw away on the last day of school, but do everything you can to reduce the amount. Separate reusable paper from old notebooks, binders, and folders and recycle what can't be reused. You can also recycle other items, such as the forgotten plastic water bottles in your backpack and rinsed-out glue bottles. All bottles must be empty, clean, and dry before they go into the recycling bin.

You will be able to keep some items for reuse. That notebook paper with one or both sides still blank is great for sketching, writing notes and lists, keeping track of game scores, or writing stories during the summer. The storybooks and unused workbooks that won't be needed next year can be donated to younger kids for playing school, a used bookstore, or another organization that takes books.

Don't throw out that backpack. Use the vacuum to get bits of trash out of the corners and then wipe it well inside and out with a damp cloth. Then hang it somewhere convenient to use all summer. You can pack it for quick overnight trips or for a trip to the pool or beach. It will be easy to grab and use again for school in the fall.

There are many other supplies that can be used again next year, saving your parents money and time in the fall. Use a special bag or box to collect still usable pencils, pens, erasers, rulers, markers, crayons, notecards, and other supplies. Keep the box or bag somewhere that you won't forget and go through it before school shopping at the end of summer.

Thank your teachers for a great year, and have a good summer break knowing that you finished the school year a little cleaner and greener!

Make playgrounds, not tire piles

Each year, about 25% of discarded tires are turned into ground rubber to create new surfaces for athletic fields, running tracks, and playgrounds or to be mixed into road asphalt. Another 63% are turned into other useful products or used as fuel. Overall, about 88% of discarded tires are reused and recycled!

If you think about what you know about percentages, you can imagine that a lot of tires are not being recycled. Do the math. If 88% of tires are being recycled, then the other 12% are not. When you have almost 300 million scrap tires each year and 12% aren't being recycled, that means about 36 million tires are dumped or sent to landfills. That's a lot of tires that we could be recycling!

Unfortunately, the tires that aren't recycled may end up in illegal tire piles, which can be very dangerous. Standing tires can provide a watery home for mosquitoes, which can carry the West Nile Virus and other diseases. Piles of tires can also catch on fire and burn for long periods of time, releasing heavy, black smoke and leaving an oily film behind on the soil. That isn't good for people or the planet!

Doesn't a playground, running track, or sports field made from tires sound so much better than a nasty pile? And of course, these are just some of the uses. Tires also become parking bumpers, road surfaces, and so much more!

This year, be sure that your family's used tires are recycled. When your parents buy replacement tires, the tire store will recycle the old tires for you. You can also drop off used tires at any of the Tox-Away Day events listed on page 2 of this newsletter. The first four passenger tires can be recycled for free, and then there is a fee of \$2 for each additional tire (limit of 12 tires per household per event). The first four truck/tractor tires are recycled at no cost, and there is a fee of \$5 for each additional tire (limit of six large tires per household per event). Farm tires are accepted for \$75 each or \$5 each if quartered.



E-waste of space

We have all heard many times that we should try not to waste things like food, electricity, water, and time. However, many people waste something that we don't always talk about — space. How many spaces in your home are filled with things that you no longer use because they have been replaced or broken?



How many of those things wasting space are electronic gadgets and their various parts? We are helped and entertained by many electronic devices, such as computers with their keyboards, printers, mice, and monitors, game systems and controllers, e-readers, tablets, music players, cell phones, DVD players, laptop computers, earbuds, and speakers.

When you replace older electronics with the newest models or because they have broken, you shouldn't throw them into the trash. They contain harmful chemicals that can hurt our Earth, but they also contain precious metals and plastics that can be recycled to save energy and resources that would otherwise be required to mine or manufacture them. The plastics, metals, and glass from old devices can be reused to make new ones. Even if you never throw your old electronics into the trash, you might have them piled on shelves or stuffed into drawers, wasting space that could be used for other things.

If you are no longer using an electronic device but it still works, consider giving it to a friend or family member, donating it to a charitable organization, or asking a parent to help you sell

it. If it no longer works, maybe you could try fixing it. Ask your parents for permission to go to www.ifixit.com where you can find instructions on how to fix many electronic devices.

Be sure to recycle all of the electronics that your family no longer wants and can't fix or give away. You can recycle electronics at — you guessed it — one of our Tox-Away Day drop-off events.

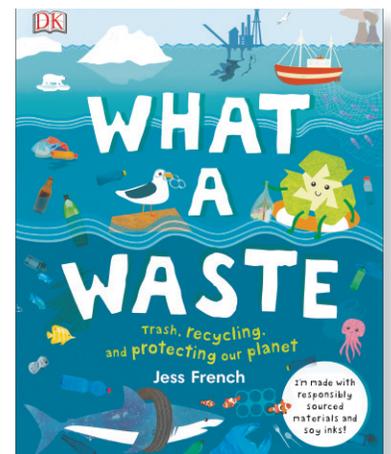
What an adventure!

How does plastic get into the ocean? Where does poop go after I flush the toilet? How is paper recycled? Is there trash in space? An internet search does not always provide answers to your questions in ways that are fun and easy to understand. But Jess French does in her book, *What a Waste* (DK Publishing, 72 pages, print and e-book).

"My strongest and best memories are of going to the woods at the weekend," says French. "Me and my dad... would rip up old logs, lift up stones, dig up soil, and we always used to find loads of different, cool stuff."

While French is now both a veterinarian and an author, she is best known for a British television program called *Minibeast Adventure With Jess*, where she leads small children on encounters with small creatures. You can watch old episodes on YouTube.

Not only does French explain many environmental topics in this book, but she also suggests actions that readers can take to protect the planet. Plus, the book shows how young people can become leaders in their homes, schools, and communities.



Funded by the Hendricks County Solid Waste Management District



Creeping Chemicals

To learn how plants may absorb (take up) harmful substances, try the experiment below. You will need a celery stalk that still has some of its leaves, scissors, two cups, water, some food coloring, a marker, a warm spot to set your experiment, and a piece of reused paper to record your findings.

1. From the middle of the bottom, cut up the center of one celery stalk until you are about halfway between the top and bottom. It should look like an upside down "Y." Be sure the stalk is still attached at the top.
2. Place each half of the stalk into its own cup.
3. Fill both cups with water.
4. Add six drops of food coloring to one of the cups. This will represent hazardous chemicals.
5. With a marker, mark the water level on the outside of both cups.
6. Set the cups and celery in a warm spot, and wait 30 minutes.
7. Lift the celery out of the cups. What do you notice about the bottom of each half? How are they different?
8. Return the bottom of each stalk to the same cup it was in before.
9. Leave your experiment overnight.
10. Remove the celery stalk again. How does the celery differ from yesterday? How are the two halves different?
11. Check the water levels. How are they different from yesterday's levels? Did the celery use any of the water?

Questions:

1. If the food coloring had been a hazardous chemical, what effect do you think this would have had on the plant?

2. What might happen to an animal or human who ate this plant?

3. What does this suggest to you about hazardous chemicals in water?

4. Could hazardous chemicals on soil get into water? If so, how?

5. List three things your family can do to keep harmful chemicals out of water:



WHAT'S WRONG?

In science, Rashad's class has been learning about different jobs that scientists do. When he filled in the blanks, he forgot to check his work. Now, four of his answers don't match up with the correct description.

Instructions: Look at each line. If the scientist is not listed with the correct description, cross out the incorrect answer and write the correct type of scientist. (Hint: You will only use each term once.)

Scientist	Description
1. ecologist	studies ocean plants and animals
2. meteorologist	studies the structure of the earth
3. botanist	studies plant life
4. chemist	studies substances, compounds, and chemical reactions
5. marine biologist	studies weather and climate
6. agronomist	studies soil and crops
7. geologist	studies living things and their environment

Bonus: Which of these scientists might make household chemicals or medicines? _____

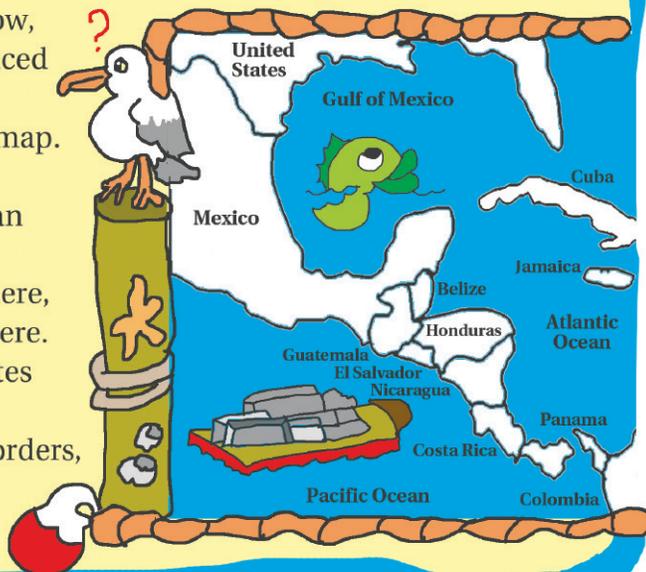


Where in the world?

Silver is a part of almost all electronics you might have at home, from cell phones to laptops to TVs. That's because silver is a good electrical conductor. Using the clues below, figure out which country produced the most silver in 2019 at 6,300 metric tons and color it on the map.

1. I touch both the Pacific Ocean and the Atlantic Ocean.
2. I'm in the northern hemisphere, but it doesn't get very cold here.
3. I am south of the United States but north of South America.
4. Three countries touch my borders, one of which is Belize.

Answer: _____

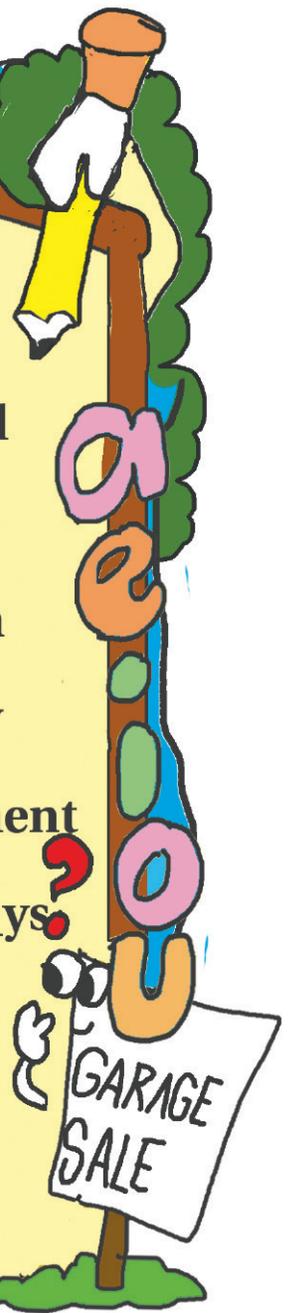


Something's Missing

Instructions:

Fill in the missing vowels to read the message.

Th_s s_mmer, my f_m_ly pl_ns t_h_ld
_g_r_ge s_le. I c_n't w_it bec_use my
m_m sa_d _c_n ke_p the m_ney fr_m
the s_le _f my _ld th_ngs. _'ve _lre_dy
st_rted cle_n_ng my ro_m _nd the b_sement
t_f_nd cl_th_s th_t _r_to_sm_ll _nd t_ys
and g_m_s I n_l_ng_r_nj_y. _t
t_rns o_t th_t _h_v_
a l_t _f th_ngs th_t I d_n't _v_r _s_.



SUPPLYING THE DEMAND

Instructions: Circle the correct answer:

Electronics contain copper. If the price of copper drops, what will happen to the price paid to recyclers for old electronics?

Stay the same Increase Decrease

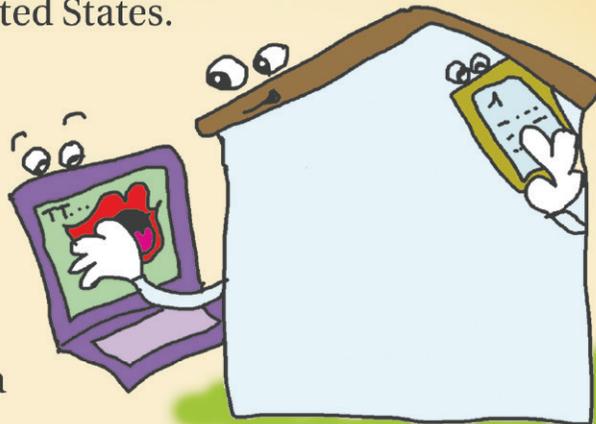


DARE TO COMPARE

Instructions: Use the clues to find the correct answers. Show your work. The letter E stands for the number of electronic devices that connect to the internet per household in the United States.

Clues:

- A. $E \leq 15$
- B. $E + E > 25$
- C. E is an odd number.
- D. E is a prime number.

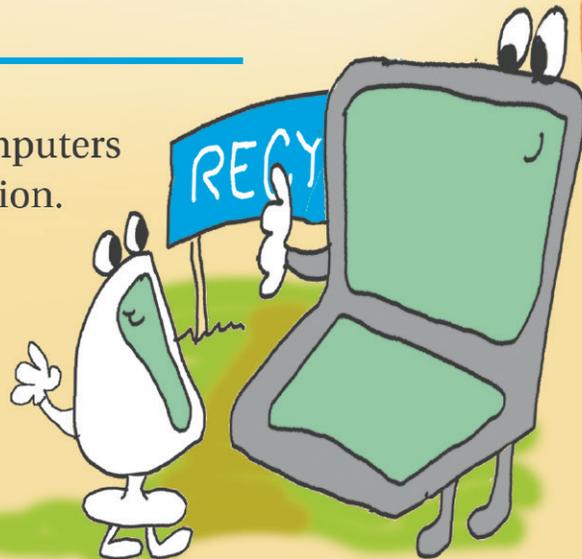


1. Based on the first two clues, make a list of all possible answers. _____
2. Using the third clue, list the possible answers. _____
3. What is E? _____
4. Did you need to use all four clues? _____

The letter C stands for the number of computers that were recycled at the Saturday collection.

Clues:

- A. $C + 2 > 34$
- B. $C + C < 83$
- C. $8 \times 5 \leq C$
- D. 3 is not a factor of C.
- E. 10 is a factor of C.



1. To find C, which clue would you use first? _____
2. Which clue would you use second? _____
3. What is C? _____
4. Did you need to use all clues to find the answer? _____

Reuse Ideas

Math

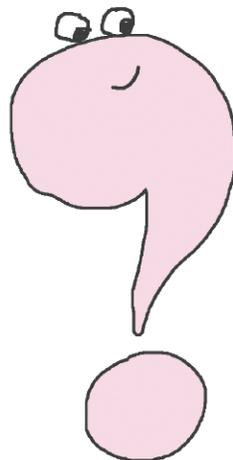
- List the factors of 40.
- Write the decimal equivalent of the fraction $10/40$.
- Write ten problems that will have 24 as the answer ($34 - 10$, 8×3 , etc.).
- If Maya was born on October 10, 2010, how old is she today? How old will she be on New Year's Eve 2020?
- If the garage sale began at 7:45 a.m. and ended at 3:15 p.m., how long was the sale?

English/Language Arts

- Find an exclamatory sentence and an interrogative sentence.
- Write these words in ABC (alphabetical) order:
summer Saturday south studies small
- Combine these sentences to create one sentence:
Ms. Kline is a meteorologist.
She works for channel 10.
She is the weather forecaster on the 6 o'clock news.
- Circle the word that does not rhyme:
shoes news chose use

Science

- Mixing vinegar and water forms a:
solution solvent situation
- Circle the tools that might be used by a chemist:
goggles beakers soil borer
Bunsen burner
- What do these four types of scientists study?
herpetologist ichthyologist
lepidopterist entomologist



Social Studies

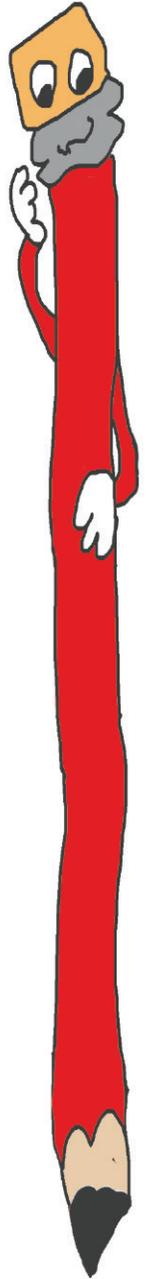
- In the U.S., the average home has 13 connected devices (computers, tablets, smartphones, etc.) with access to the Internet. Using the population of our city, town, or county, how many connected devices are in use in homes in our community?
- In 2005, what popular video website was created?

Journal Writing Prompts

- Write a thank-you note to your teacher.
- What skill would you like to improve this summer? How will you practice that skill?
- List 10 things you like to do that don't cost any money.
- List five items you no longer need that you could sell if your family held a garage sale. Why did you select these items?

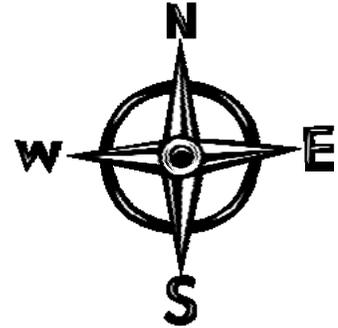
Extension Activity: Direct Your Attention

Provide a copy of "Direct Your Attention" to each student. After each student solves the problem, ask them to create a similar puzzle. Each student will need to select a seven-letter word. First, students will put the letters of that word into blank spaces. Second, students will write their directions. Third, students will fill in the rest of the blank spaces with unneeded letters. After students have created their puzzles, have them share their puzzles and see whether their classmates can find the correct solution. You may want to do a sample together as a class to practice.



Direct Your Attention

Instructions: Begin with your pencil in the center square on the recycling symbol. Follow the steps. Circle each letter where your pencil stops. Write the letters in order in the spaces provided. Then create your own puzzle. Choose a seven-letter word. Hide your letters and write your direction clues. Have a classmate try to solve your puzzle.



1. Go 1 block North
2. Go 2 blocks East
3. Go 3 blocks South
4. Go 4 blocks West
5. Go 1 block North and 1 block East
6. Go 3 blocks North
7. Go 2 blocks East

A	L	O	E	N
V	B	R	M	E
T	G		C	S
P	C	F	U	D
Y	K	I	E	C

This summer, remember to

_____ !

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Teacher Keys

Creeping Chemicals

1. The plant would have absorbed the hazardous chemical; this could have harmed or maybe even killed the plant.
2. The person or animal who ate the plant might get sick.
3. Hazardous chemicals in water don't just affect the water; they can harm soil, plants, animals, and humans.
4. Yes, hazardous chemicals on soil or pavement could flow into the water when it rains.
5. Answers will vary, but may include: Store hazardous chemicals properly. Don't buy chemicals that you don't need. Don't pour chemicals onto the ground or down the drain. Use fewer chemicals.

Dare to Compare

E

1. 13, 14, 15
2. 13, 15
3. 13
4. Answers will vary (You can find the correct answer without using Clue C.)

C

1. Answers will vary.
2. Answers will vary.
3. 40
4. Answers will vary. (You can find the correct answer without using B or C and D.)

Something's Missing

This summer, my family plans to hold a garage sale. I can't wait because my mom said I can keep the money from the sale of my old things. I've already started cleaning my room and the basement to find clothes that are too small and toys and games I no longer enjoy. It turns out that I have a lot of things that I don't ever use.

Supplying the Demand

The price of old electronics will also decrease.

What's Wrong?

Incorrect answers are: 1, 2, 5, 7

Correct answers are:

1. **marine biologist**
2. **geologist**
3. botanist
4. chemist
5. **meteorologist**
6. agronomist
7. **ecologist**

Where in the World?

Answer: Mexico

Direct Your Attention

Answer to first riddle: RECYCLE

Skills and Standards

Activity	Subject Areas	Skills Addressed
Something's Missing	<i>English/ Language Arts</i>	Decoding and reading words by applying phonics and word analysis skills; Applying foundational reading skills to demonstrate reading fluency and comprehension; Applying context clues to determine the meanings of unknown words; Exploring ideas under discussion by drawing on readings and other information Grade 3: 3.RF.4; 3.RF.1; 3.RV.2.1; 3.SL.2.2 Grade 4: 4.RF.4; 4.RF.1; 4.RV.2.1; 4.SL.2.2 Grade 5: 5.RF.4; 5.RF.1; 5.RV.2.1; 5.SL.2.2
Dare to Compare	<i>Math</i>	Multiplying or dividing to solve word problems involving multiplicative comparison; Making sense of problems and seeking entry points to a solution; Modeling with mathematics; Analyzing patterns and relationships; Reasoning abstractly and quantitatively Process Standards (all grades): PS.1; PS.2; PS.4; PS.5; PS.6 Grade 3: 3.NS.2; 3.C.1; 3.C.5; 3.AT.1; 3.AT.2; 3.AT.3; 3.DA.1 Grade 4: 4.NS.2; 4.C.2; 4.C.3; 4.C.4; 4.AT.4; 4.DA.1 Grade 5: 5.C; 5.AT.1; 5.DA.1
What's Wrong	<i>Science</i>	Defining terms; Understanding the uses of science in the real world; Identifying types of work done by scientists Grades 3-5: SEPS.1; SEPS.3; SEPS.6
Where in the World?	<i>Social Studies</i>	Using cardinal directions to locate places on maps and globes; Examining ways people have tried to solve environmental problems; Identifying how human systems and physical systems have impacted the local environment Grade 3: 3.3.1; 3.3.4; 3.3.12; 3.3.13 Grade 4: 4.3 Grade 5: 5.3
Creeping Chemicals	<i>Science</i>	Following precisely a multi-step procedure when carrying out experiments; Constructing and performing fair investigations in which variables are controlled; Using evidence to support the explanation that a change in the environment may determine whether a plant or animal will survive and reproduce, move to a new location, or die Grade 3: SEPS.3; SEPS.4; 3-5.E.2; 3-5.E.3 Grade 4: SEPS.3; SEPS.4; 4.PS.1; 4.ESS.4; 3-5.E.2; 3-5.E.3; 4.LS.2 Grade 5: SEPS.3; SEPS.4; 5.ESS.3; 5.LS.1; 3-5.E.2; 3-5.E.3
Supplying the Demand	<i>Social Studies</i>	Explaining that prices change as a result of changes in supply and demand for specific products Grade 3: 3.4.1 Grade 4: 4.4.4 Grade 5: 5.4.7
Article Text	<i>English/ Language Arts</i>	Reading and comprehending nonfiction, informational text; Applying context clues to determine meaning of unknown words; Determining meaning of content specific words and phrases in nonfiction text; Developing media literacy Grade 3 & 4: RN.1; RN.2.1; RN.2.2; RN.3.1; RN.4.1; RV.2.1; RV.3.2; 4.ML.1 Grade 5: 5.RN.2.2; 5.RN.4.1; 5.RV.2.1; 5.RV.3.2; 5.ML.1