

# Step-by-Step Guide for the Quiz Show Project

- 1. Determine the format of the quiz show. Think about what you are trying to accomplish, the amount of time and number of volunteers available to you, and whether you want to hold a one-time event or a recurring one. These considerations will help you decide on the best format for your quiz show.

  - Option 2: A quiz show during lunch. If your school is
    experiencing problems with reducing waste in the lunchroom,
    conduct the quiz show within the first five to ten minutes
    of each lunch period. Do this at the beginning of the year or
    periodically throughout the year when specific contamination
    issues arise. Promote waste-free lunches by challenging the
    different grade levels or specific classes to reduce their waste as
    much as possible.
  - Option 3: A quiz show in the classroom. Does your school
    need to boost its program in individual classrooms or at a
    particular grade level? If a smaller setting would be more
    effective in increasing participation in the program, or if student
    volunteers are more comfortable presenting the quiz in front
    of a class instead of the whole school, consider a travelling quiz
    show that goes from class to class.
  - Option 4: A quiz show in the morning announcements.
     Don't have time to put together a quiz show for an assembly or the lunchroom? Consider presenting the quiz show as an ongoing series of facts and tips announced once a week over the intercom or by each teacher at the beginning of the school week. This series of announcements serves as periodic reminders for students and staff.
- Get support for the event. Talk with the principal and other appropriate staff to get support for the format you have chosen.

- Find out if they have suggestions for making your event successful. Get permission to award incentives or prizes such as a visit from the school mascot, extra recess time, or a party. Seek the advice of the custodian on which issues to address in your quiz.
- 3. Choose the day or days of the quiz show events. Consider school schedules in your decision. Which days will result in the best participation from students and staff? Which work best with teacher schedules?
- **4. Select questions to match the grade and knowledge levels of the audience.** Prior to the event prepare students by sharing some of the relevant facts during all-school announcements, at lunch times, and in the school newsletter.
- 5. Spread the word. Make sure that everyone knows the date of the quiz show event and where it is going to be held. Include an announcement on the school website, newsletter, and in daily bulletins.
- **6. Rehearse and practice.** Allow at least one day to rehearse the questions and work with any props you may use to make the quiz show fun and interactive. (See Tips and Tricks.) Make sure you have all the supplies you need. The Green Team members can test the quiz show on themselves before trying it on the rest of the school.
- Hold the quiz show event. Encourage all students and staff to attend
- 8. Use the quiz show as a platform for additional activities.

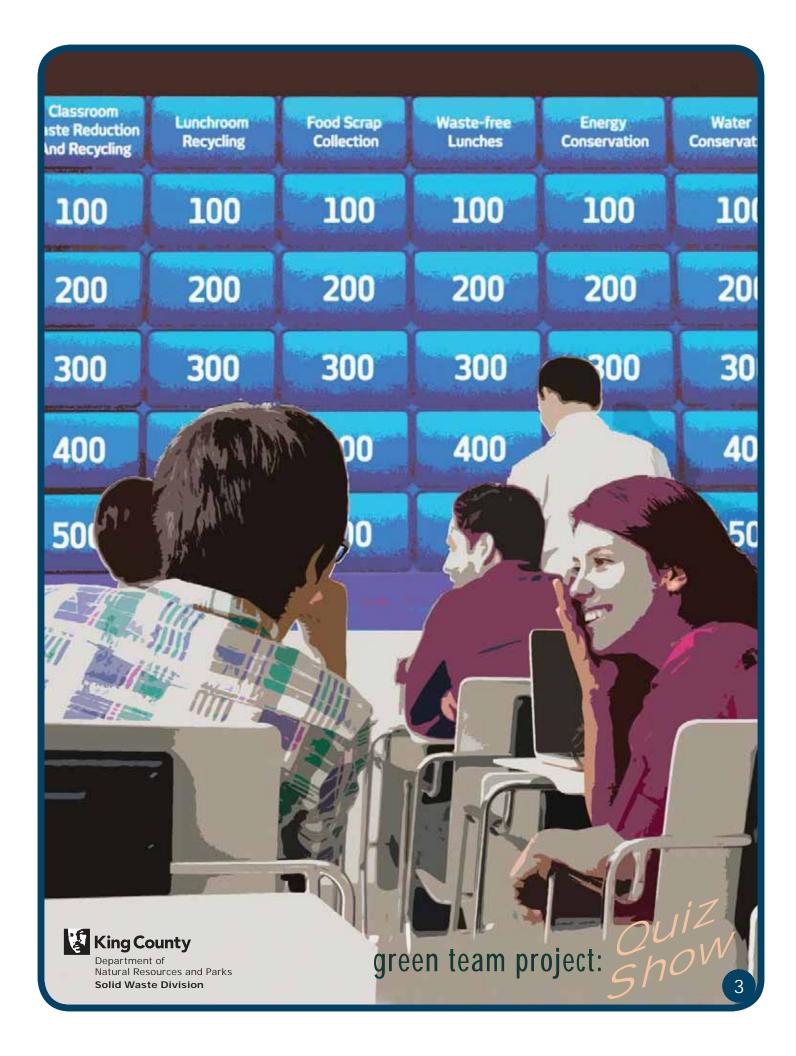
  Once you've conducted the quiz show, you can follow up by encouraging additional positive actions. Consider announcing each of the facts in the quiz show as a daily or weekly review, or asking them as questions and awarding a prize to the first class to respond correctly to the question.
- 9. Report your results to the larger community. Interested students could create posters or announcements of facts about your school's waste reduction and recycling efforts. Send them to the school board, your local paper, and to the King County Green Team program. Each year the King County Solid Waste Division recognizes student groups that complete environmental projects. Send project information to greenteam@triangleassociates.com.

**All-school assembly** - The auditorium or another open common space, such as a gymnasium or lunchroom (when not occupied for lunch), are possible venues for an all-school assembly. Scheduling the assembly in the morning can allow students to put the information into practice that same day during lunch or classroom time.

**Lunchtime presentation** - Make sure the quiz show props and participants are positioned where all students can see them. They could be set up near the disposal station, but should be kept out of the way of student traffic.

**Classroom presentation -** Consider your classroom size and set-up and adjust the number of participating students and props as needed.

**Morning announcement-** If your school does not have an intercom, consider having several members of the Green Team go into each classroom at the beginning of the day to make the announcement. Or you could develop a set of fun facts and challenge questions and distribute them to teachers to read to their students.



# Five tips and tricks to make your quiz show interactive and fun

- 1. Design a catchy backdrop. The backdrop helps to set the scene for your audience and should be large enough to be seen easily by everyone in attendance. You can use large construction paper and other art supplies to create the backdrop. Mount it on a wall behind the quiz show. Relate your backdrop to the theme of your quiz show. For instance, if your quiz show focuses on how to conserve water, create a mural depicting the various locations water is used inside a house.
- 2. Have quirky characters run the show. A show is much more entertaining if students assume the role of a fun character. Students should remain in character from start to finish of the quiz show, reverting to their own personalities only after the audience leaves. Create characters that students are comfortable being throughout the show. Invent a name for your characters, wear colorful outfits, and change the tone and speed of your voice to match your character.
- 3. Create a script. Students adopting the role of a character will need to know what to say. A script ensures that everyone is on the same page and allows for even the most hesitant of actors to shine

When creating your script, keep in mind the following:

- Divide the quiz show into scenes to give it an easy-to-follow structure.
- Write clear, concise sentences.
- Help characters identify their lines by putting their names in hold
- Each character can highlight his or her part of the script and cues.
- Italicize actions that characters should perform to differentiate them from their spoken lines.
- Practice, practice, practice!
- **4. Use props.** A quiz show will be more fun with props and visuals to engage your audience. Demonstrating with props the conservation choices under discussion can make confusing topics more tangible for any audience. Here are some suggested props.
  - General
    - o microphone
    - o buzzer, bell, or other noise maker for contestants to signal their readiness to answer
    - decorative tablecloth for the table serving as the quiz show podium
    - prizes or incentives for students, such as pencils, an extra ten minutes of recess, or a healthy snack.
  - Waste reduction and recycling quiz show
    - large laminated photos of your local landfill, local recycling center, and local composting center
    - small recycle bin (blue), small garbage bin (black or gray), small compost bin (green or tan)

- examples of common recyclables (plastic bottles and tubs, all kinds of paper, milk cartons, aluminum and tin cans, glass jars)
- examples of common garbage items (paper towels and tissues, chip bags, bottle caps, straws)
- examples of common compostable items (food scraps, food-soiled paper such as napkins, non-wax coated paper plates, pizza boxes).

Additional props for classroom reducing and reusing

- o bins for reuse (scrap paper bin, bin with mini-whiteboards)
- o examples of reusable items (water bottle, one-sided paper)

Additional props for lunchroom recycling

- student-designed signs for each bin (recycling, garbage, food scraps) with actual examples of what goes in each bin attached to each sign
- o a bin for leftover liquids

Additional props for food-scrap collection

- o small compost bin
- o jar of compost
- o examples of fake food for demonstration
- examples of food-soiled paper (a pizza box, a paper bag with food residue)

Additional props for waste-free lunch

- waste-free lunch kit (durable utensils, reusable containers for food storage, reusable drink container, reusable lunchbox, cloth napkin)
- examples of disposable items (plastic utensils, paper napkins, plastic packaging, plastic water bottle, paper bag)
- Energy conservation quiz show
  - photos of regular incandescent, CFL (compact fluorescent), and LED light bulbs
  - o light bulb prop that lights up at the tug of a string when someone has an idea
  - o small oil can, small sample of coal
  - toy examples of electronics (computer, game systems, cell phones); toy examples of kitchen equipment (stove)
- Water conservation quiz show
  - o gallon jug filled with water
  - toy example of earth with the distribution of water indicated in percentages by type of resource (ocean, glacier, rivers, groundwater, etc.)
  - examples of shower timer and low-flow showerhead and faucet heads; toy examples of dishes and sponge, miniwashing machine, toothbrush, sprinkler hose

- 5. Pose a challenge or take-home message and provide follow-up. In addition to interacting with the audience during your quiz show, give your audience something to think about or practice beyond your time together.
  - Pose a challenge question.
    - o Theme: Classroom recycling
    - Challenge question: What is one item you will recycle more?
    - o Follow-up: I'll check back in with you in \_\_\_\_\_ weeks to see how you are doing!

- Create or provide a take-home handout.
  - o Theme: Water conservation
  - Take-home handout: Create a one-page survey that consists of a diagram of a house showing its various parts (kitchen, bathroom, laundry room, yard). For each part of the house, pose a water conservation challenge. For example, in the bathroom ask students to time the duration of their shower. Challenge them to reduce the number of minutes they spend in the shower. Include opportunities for students to practice math calculations. Also include tips, tricks, and resources students and their families can use to conserve water in their home. Find ready-to-use take-home surveys at your.kingcounty.gov/solidwaste/secondaryschool/documents/home-survey-4-Rs.pdf and your.kingcounty.gov/solidwaste/elementaryschool/workshops.asp.



## **Quiz Show Topics**

Six different categories of questions are listed below: classroom waste reduction and recycling, lunchroom recycling, food-scrap collection, waste-free lunches, energy conservation, and water conservation. Questions are listed from easiest to hardest. Select the ones that best fit the age level of your audience or the topic most relevant to your program.

Each category can be run as its very own quiz show. You can focus on a different category each quarter to reinvigorate conservation efforts throughout the school year. Or questions from each topic can be used together in one large quiz show held for a single event, such as Earth Day or Spirit Day.

## **Classroom waste reduction and recycling**

- 1. Tell us one way you can reduce paper use at school or at home.

  Any of the following responses are correct:
  - Create a Reuse box in your classroom for paper that is good on one side.
  - Use the back side of each piece of paper.
  - Photocopy or print double-sided.
  - · Use each page in our notebooks.
  - Use a white board instead of paper.
  - Communicate by e-mail instead of paper.
  - Save e-mails, homework, and reports on the computer instead of printing them out and filing them.
  - · Reuse file folders and envelopes.
  - If you no longer want to receive a newspaper or magazine, cancel the subscription (or ask to have names and mailing addresses removed from distribution lists).

(Note: After a student provides one correct answer, ask the group for other paper waste reduction ideas.)

- **2.** Name two kinds of paper that go in the recycling bin.
  - Any two of the following responses are correct:
  - Newspaper
  - Notebook paper
  - · Colored paper, such as construction or scrap paper
  - Glossy advertising paper or junk mail
  - Cardboard
  - Paperboard, such as milk cartons, cereal boxes, snack containers
  - Notebook paper
  - Receipt paper

(Note: After a student provides two correct answers, ask the group for other examples of recyclable paper.)

- **3.** Where does your garbage go after you throw it away?
  - a. It's dumped into the ocean.
  - b. It goes to a garbage transfer station, then to the Cedar Hills Regional Landfill.
  - c. It's shipped overseas.

- **4.** Which ONE of the following items DOES belong in the recycling container?
  - a. Food scraps, such as a banana peel

#### b. A plastic bottle

- c. A straw
- d. A bottle cap
- **5.** True or False? More than half of the garbage that ends up in the Cedar Hills landfill could have been recycled. **True**
- **6.** Yes or No: Can you place magazines and junk mail in the recycling bin? **Yes**
- **7.** Yes or No: Do staples have to be removed before recycling paper? **No**
- **8.** True or False? It's better for the environment when you use a refillable water bottle rather than buy bottled water, drink the water, then recycle the empty plastic bottle. **True**
- **9.** Name one product that paper is recycled into after it goes in a recycling bin.
  - **Any of the following answers is correct:** Cardboard, more paper, paper towels, napkins, magazines, shirt boxes, paper bags, egg cartons, and almost any paper item.
- **10.** How do you determine if a plastic container is recyclable?
  - a. Look at the number on the bottom.
  - b. Look at the shape only plastic bottles, jugs, dairy tubs and cups are recyclable.
  - c. Look at the color of the plastic.
- **11.** Recycling one can of soda saves enough energy to power a TV for how many hours?
  - a. 1 hour
  - b. 2 hours
  - c. 3 hours

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a. 1 hour

b. 2 hours

c. 3 hours



Department of Natural Resources and Parks Solid Waste Division



## **Lunchroom recycling**

- **1.** What should you NOT do with a milk carton or other beverage container before you put it in the recycling?
  - a. Throw the milk carton or other beverage container with the liquid it in into the recycling bin.
  - b. Drink all of the milk or other beverage.
  - c. Empty the leftover milk or other liquid into a liquids bucket or sink, and then recycle the carton.
- **2.** Where should tissue paper you use to blow your nose and paper towels you use to wash your hands go?
  - **a. Garbage bin** (to avoid contaminating the recycling or compost with anything that could spread disease)
  - b. Recycle bin
  - c. Compost bin
- **3.** If everyone in Washington State said "No thanks, I don't need a bag," we'd save 6 million plastic bags. Name one thing we could use instead of a plastic bag.

#### Any of the following responses are acceptable:

- · Reusable cloth bag
- Plastic or paper bag from your house
- A backpack
- · No bag for a small or single item
- 4. A piece of paper can be recycled up to seven times before being made into tissue paper, toilet paper, and paper towels. Name another item that can be recycled. What might it be made into? Student responses to what an item could be made into will vary. Answers include the following:
  - · Aluminum, tin, and steel cans are made into new cans.
  - Glass bottles and jars are made into new glass bottles and jars.
  - Plastic bottles and plastic tub and cup-shaped items are made into fleece, plastic benches and other plastic items.

- 5. Name an item from your school lunchroom that SHOULD go into the GARBAGE, so it doesn't contaminate your recycling bin. Acceptable student responses include the following:
  - Plastic wrappers, such as candy bar or snack wrappers, and Saran wrap
  - Plastic bags, including grocery bags, chip bags, and sandwich and snack bags
  - Bottle caps and lids
  - Straws
  - Drink pouches
- **6.** How can you reduce the amount of lunchroom waste you create?
  - a. Packing a waste-free lunch with reusable, not disposable, items.
  - b. Choosing the hot lunch choice that uses the least amount of packaging.
  - c. Taking only the amount of food I know I will eat at lunch.
  - d. Sharing any items I do not eat with others at a school "share table."
  - e. All of the above.
- **7.** Yes or No: Can you recycle foam trays and plastic utensils? **No**
- **8.** When recycling a plastic water bottle, what should you do with the cap?
  - a. The cap goes into the garbage can and the bottle goes in a recycling bin.
  - b. Screw the cap back on the bottle, then put the bottle and cap in a recycling bin.
  - c. Recycle the cap separately.
- **9.** Yes or No: Can you recycle a steel can, a glass bottle or a plastic bottle with the label on? **Yes**
- **10.** What are the two largest components of a typical school's garbage?)
  - a. Bottle caps
  - b. Paper
  - c. Food scraps
  - d. Apple cores



- 8. When recycling a plastic water bottle, what should you do with the cap?
  - The cap goes into the garbage can and the bottle goes in a recycling bin.
  - Screw the cap back on the bottle, then put the bottle and cap in a recycling bin.
  - · Recycle the cap separately.

## **Food-scrap collection**

**1.** Name an item that can go in your school's food-scrap collection bin.

### Acceptable student responses include the following:

- · Food scraps of any kind
- Paper napkins
- Paper bags
- · Wax-coated paper plates
- Non-plastic coated paper plates
- Pizza boxes
- Paper egg cartons
- **2.** Which of the following food-soiled products should you NOT put in the food-scrap collection bin?
  - a. Paper towels
  - b. Paper napkins
  - c. Greasy cardboard pizza delivery boxes

#### d. Plastic cups, plastic utensils, and plastic plates

- **3.** What of the following can you put in your food-scrap collection bin?
  - a. Banana peel
  - b. Meat scraps and bones
  - c. Moldy cheese
  - d. Potato peelings
  - e. All of the above
- **4.** Which of the following can NOT be placed in a school food-scrap collection container or in your yard waste cart at home?
  - a. Apple core
  - b. Milk carton
  - c. Pizza delivery box
  - d. Paper napkins

- **5.** What happens to food that is put into yard waste carts at home or into a school's food-scrap collection container?
  - a. The food scraps go to a special food-only landfill.
  - b. The food scraps are made into new food.
  - c. It's turned into compost that can be used to nourish our garden.
- **6.** When we put food in our garbage can in King County, where does all that food go?
  - a. A composting center
  - b. A recycling center

#### c. The landfill

- 7. True or False? You can recycle meat, bones, and dairy scraps in your yard waste cart and in a school food-scrap collection bin. **True**
- **8.** True or False? If I place my food scraps in a paper sack, I can throw the sack into the food-scrap collection bin along with the food scraps. **True**
- **9.** What is the value of turning food scraps into compost that can be used to enhance soil?

# Student answers will vary. Acceptable answers may include the following:

- Soil is important for plants to grow.
- · Soil can be used in our gardens and parks.
- Composting food scraps is a form of recycling; throwing food scraps in the garbage to end up in the landfill is a waste of a resource.
- **10.** Food scraps and food-soiled paper make up what percentage of a typical school's garbage?
  - a. 10%
  - **b. 32**%

4. Which of the following can NOT be placed in a school food-scrap collection container or in your yard waste cart at home?

• Apple core
• Milk carton
• Pizza delivery box
• Paper napkins

King County

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#### **Waste-free lunches**

**1.** If you bring a lunch from home, what is one way you can pack a waste-free lunch?

#### Any of the following responses are correct:

- Put food items in durable, reusable containers.
- Bring a drink in a durable, reusable container.
- Pack the lunch in a durable, reusable box or bag.
- Only bring what I will eat or drink.
- Take leftovers home for a snack.
- (Note: After a student provides one correct answer, ask the group for other waste-free lunch ideas.)
- **2.** True or False? The packaging and products we use for our lunches, such as plastic, paper, and metal, come from natural resources such as plants, trees, rocks, oil, and water. **True**
- 3. When garbage goes to a landfill, it
  - a. Turns to compost.

#### b. Sits there forever as a wasted resource.\*

- c. Gets recycled.
- d. Breaks down very quickly.
- \* (Everything we make, use, or buy comes from natural resources. That's why it's important to make sure we reduce the amount of waste we make, and reuse and recycle as much as possible.)
- **4.** True or False? A disposable lunch is one containing items with packaging made for a one-time use. **True**
- **5.** Name an example of a disposable lunch item.

#### Any of the following responses are correct:

- Sandwiches sealed in plastic bags
- Fruits and vegetables in plastic bags
- Prepackaged products such as chips, cookies, fruit bars, granola bars, cheeses, etc.
- Prepackaged yogurts, apple sauces, puddings, and fruit cups
- Crackers, pretzels, chips, and other snack foods sealed in plastic bags or packages
- Disposable, one-time use juice boxes, juice pouches or other throwaways
- Plastic utensils such as forks and spoons and paper napkins
- Anything that is intended for one-time use and generates disposable packaging

(Note: After a student provides one correct answer, ask the group for other examples of disposable lunch items.)

- **6.** What is the benefit of packing a waste-free lunch?
  - a. You avoid using up natural resources such as trees, energy, water, metals, and oil.
  - You avoid the pollution caused by mining, manufacture, transport, and disposal of products made from natural resources.
  - c. You decrease the amount of items going into the landfill.
  - d. You can save money on your garbage collection bill.
  - e. All of the above.
- **7.** One average-sized elementary school generates nearly 20,000 pounds of waste in one year just from disposable packaging. Name one way that you can reduce the amount of disposable packaging in your lunch.

# Student's answers will vary. Acceptable answers may include any of the following:

- Packing fruits, vegetables, and other items that do not require packaging.
- Buying items in bulk versus individually-wrapped items.
- Bringing a reusable lunch box or other reusable container.
- **8.** How many pounds of waste can one student save per year by packing a waste-free lunch?

#### a. 67 pounds

- b. 50 pounds
- c. 13 pounds
- **9.** How much money can a school save per person each year if everyone switched from a disposable to a waste-free lunch?
  - a. Around \$10 per person.
  - b. Around \$175 per person.

#### c. Around \$250 per person.

(According to <u>wastefreelunches.org</u>, the average disposable lunch costs \$4.02, while a waste-free lunch costs \$2.65. Per school year the cost is \$723.60 for a disposable lunch and \$477 for a waste-free lunch. By switching to waste-free lunches, a school can save \$246.60 per school year.)



- 9. How much money can a school save per person each year if everyone switched from a disposable to a waste-free lunch?
  - Around \$10 per person.
  - Around \$175 per person.
  - Around \$250 per person.

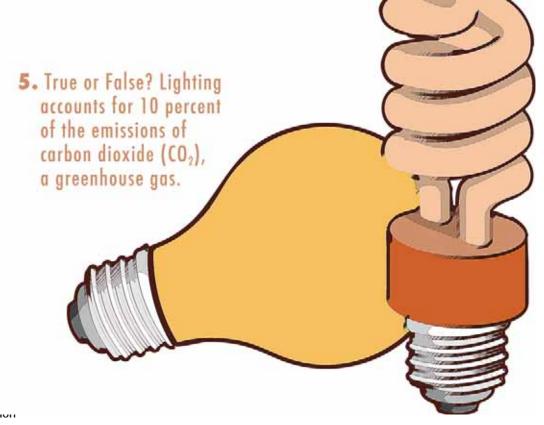
## **Energy conservation**

- True or False? Carbon dioxide, a major greenhouse gas, is released into the atmosphere through the burning of fossil fuels such as oil and coal. TRUE
- **2.** When you are done using your computer, you can save the most energy by making which choice?
  - a. Turning on a screen saver.
  - b. Logging off your computer so it returns to the log-in screen.
  - c. Turning off your computer completely.
  - d. Setting your computer to hibernate or standby.
- 3. When you turn off the lights in a classroom for one hour, how many pounds of pollutants (excess carbon dioxide) can you keep out of the environment?
  - a. None
  - b. 2 pounds
  - c. 10 pounds
- **4.** True or False? It is better to use a CFL (compact fluorescent light) bulb than a regular incandescent bulb because it lasts 10 times as long and uses 66 percent less energy. **True**
- **5.** True or False? Lighting accounts for 10 percent of the emissions of carbon dioxide (CO,), a greenhouse gas. **True**
- **6.** What is one way you can travel to school that saves energy and does not put as much CO<sub>2</sub> into the atmosphere?
  - a. Walking
  - b. Biking
  - c. Taking the bus
    d. All of the above

- **7.** You're cold at home. What is the best choice to warm yourself AND save energy?
  - a. Put on a sweater or wrap yourself in a blanket.
  - b. Turn up the heater just one or two degrees.
  - c. Take a hot shower.
- **8.** At home, how can you save energy when using the stove to cook?
  - a. Put a lid on your cooking pots. It reduces time and energy use by 20 percent.
  - b. Use the right sized pots on stove burners. A small pot on a big burner wastes over 40 percent of the burner's heat.
  - c. Turn on the stove only when you are ready to use it.
  - d. All of the above.
- **9.** The United States represents what percentage of the world's population?
  - a. 3 percent

#### b. 4.5 percent

- c. 5 percent
- **10.** The United States consumes what percentage of the world's oil?
  - a. 10%
  - b. 15%
  - c. 25%





#### Water conservation

- True or False? Although 70 percent of the earth is made of water, only three percent of the water is drinkable, while 97 percent is salty or otherwise undrinkable. True
- What is one way you can help to conserve water at school?
  Student answers will vary. Acceptable responses including the following:
  - Reduce your use of hot water. Use lukewarm or cooler water instead.
  - Use a reusable water bottle instead of a disposable one.
  - When soaping your hands or brushing your teeth, turn off the water until you're ready to rinse.
- **3.** How many gallons does the average North American person use per day?
  - a. Between 20-30 gallons
  - b. Between 80-100 gallons
  - c. Between 120-130 gallons
- **4.** Your art teacher asks you to help wash the painting supplies after art class. What is one way to wash these supplies using the least amount of water?
  - Washing the supplies by hand while letting the faucet run continuously.
  - b. Filling the sink up with water and then washing the supplies by hand.
- 5. Name one way you can waste thousands of gallons of water at home
  - a. Ignore household leaks such as running toilets and dripping faucets.
    - (Leaky faucets that drip at a rate of one drip per second can waste 3,000 gallons of water each year, and a leaky toilet can waste about 200 gallons of water every day.)
  - b. Take showers longer than five minutes.
  - c. Run partial loads of laundry instead of full loads.

- **6.** What's the best way to check if your toilet is leaking?
  - a. Look around the base of the toilet to see if there is water present.
  - b. Place a few drops of food coloring in the tank and wait 15 minutes to see if it seeps into the bowl.
  - c. Listen to the *drip-drop* noise coming from the toilet bowl area.
- 7. True or False? A full bath tub uses fewer gallons of water than a five-minute shower. False (A full bath tub requires 70 gallons of water, while a five-minute shower uses about 25 gallons.)
- **8.** True or False? By taking five-minute showers, a family of four can save up to 1,000 gallons of water. **True**
- **9.** You need to do laundry. What choice can you make to save the most water and get your clothes clean?
  - a. Wash only partial loads of laundry.
  - b. Set your washer settings to cold or warm versus hot.
  - c. Wait until you have enough clothes to do a full load of laundry.
- **10.** By turning off the tap when brushing your teeth in the morning and at bedtime, you can save how many gallons of water per day?
  - a. 2 gallons
  - b. 6 gallons
  - c. 8 gallons
- **11.** You can conserve water in your yard or garden by doing which of the following?
  - a. Watering your grass and plants when only necessary.
  - b. Planting native plants and reducing the size of your lawn.
  - c. Watering in the early morning or late in the evening to avoid evaporation.
  - d. All of the above.





# green team project: OUT Showing the second of the second

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