



Activity: Energy/Recycling Quiz

Background:

How much do your students already know about recycling and energy conservation? Test how your students' knowledge about environmentalism grows throughout the Get in the Scrap! project by using this pre- and post-test.

Point Value:

8 points (earn an extra 4 points doing the extension activity below)

Key Themes:



Scrapping



Energy
Conservation

Procedure:

1. After you have done the Get in the Scrap! lesson plan, give your students this recycling and energy conservation pre-quiz. You can grade it yourself or let students swap and score their papers. Make sure to collect and keep them.
2. When you have completed at least five Get in the Scrap! activities, give them this quiz again and see how much they've learned!
3. Extension: Turn your students into teachers by having them give the quiz to their family members and then grade them. (Extra 4 points, for a total of 12)

Materials:

Provided by Museum:

- Pre- and post-quiz questions
- Teacher answer key

Energy/ Recycling Quiz



1. In order to produce each week's Sunday newspapers, how many trees must be cut down?

- a. 150
- b. 30,000
- c. 20
- d. 500,000

2. According to the EPA, what kinds of materials are commonly recycled?

- a. Paper, glass, plastic, metal, batteries, and compostable materials.
- b. Paper, glass, plastic, batteries, and metal.
- c. Glass, plastic, metal, and compostable materials.
- d. Paper, plastic, metal, and batteries.

3. What percentage of newspapers are actually recycled in the United States?

- a. 10%
- b. 27%
- c. 55%
- d. 80%

4. How many plastic bottles are thrown away, instead of recycled, every hour?

- a. 25,000
- b. 2,500
- c. 25,000,000
- d. 250,000

5. How long would it take for a glass bottle to decompose in a dump?

- a. 4000 years
- b. 5 months
- c. 30 minutes
- d. 250 years

6. Paper products make up the largest percentage of our trash, at about:

- a. 25%.
- b. 70%.
- c. 3.1415%
- d. 40%

7. When was the first piece of recycled paper invented, and by whom?

- a. 400 B.C., the Greeks
- b. 200 B.C., the Chinese
- c. 1547, the British
- d. 1945, the Americans

Energy/ Recycling Quiz



8. Americans throw away enough aluminum every month to rebuild:

- a. A Car
- b. An Xbox
- c. The Entire Commercial Air Fleet
- d. A Spaceship

9. What ways can you help save the planet?

- a. Re-use your plastic bottles and bags
- b. Reduce the amount of waste you produce
- c. Recycle
- d. All of the above

10. How many times can glass be recycled?

- a. Forever
- b. Twice
- c. Fifty-five times
- d. Once

11. The 3 R's of waste management refer to:

- a. Reading, Writing, Arithmetic
- b. Reduce, Re-use, Recycle
- c. Rock, Reggae, R&B
- d. There is no such thing as the 3 R's

12. Can trash be used to create energy?

- a. Never
- b. Only the recyclable materials
- c. Only the non-recyclable materials
- d. Always

13. What can you make with old plastic bottles?

- a. Plastic, lumber, and furniture
- b. Toys and rulers
- c. Shirts and bags
- d. All of the above

14. How much of the energy in your home goes to heating and cooling?

- a. 33%
- b. 50%
- c. 3%
- d. 100%

Energy/ Recycling Quiz



15. Which type of lightbulb is most energy efficient?

- a. Fluorescent
- b. Incandescent
- c. Broken
- d. Halogen

16. Which household activity consumes the most water?

- a. Washing clothes
- b. Doing the dishes
- c. Taking a bath
- d. Washing the cat

17. How much money would you and your family save each year by switching five incandescent bulbs with five fluorescent bulbs?

- a. \$200
- b. \$45
- c. \$1.99
- d. You wouldn't save any money because incandescent bulbs are more energy efficient.

18. Which device consumes the most power when in standby mode?

- a. TV
- b. Kindle
- c. Laptop
- d. DVR with a digital cable box

19. What is the easiest way to save energy?

- a. Adding more insulation
- b. Caulking windows and doors
- c. Buying surge protectors
- d. None of the above

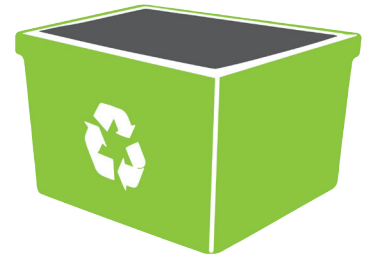
20. Which of the following uses the least amount of energy in the kitchen?

- a. Stove
- b. Toaster oven
- c. Microwave
- d. Refrigerator

21. Which of the following is the biggest power sucker in homes?

- a. Dryer
- b. Refrigerator
- c. Iron
- d. Pencil sharpener

Energy/ Recycling Quiz



- 22.** How much CO₂ does a gallon of gasoline add to the atmosphere?
- 20 pounds
 - 30,000 pounds
 - 5 pounds
 - 1 pound
- 23.** How much energy from a coal power plant makes it to customers as electricity?
- $\frac{1}{4}$
 - $\frac{1}{3}$
 - $\frac{1}{2}$
 - $\frac{2}{5}$
- 24.** Estimates of what U.S. fuel resource have grown 40% since 2006?
- Natural gas
 - Solar
 - Wind
 - Geothermal
- 25.** True or false: solar power can run while the sun isn't up.
- True
 - False
- 26.** How can you conserve energy in a car or truck?
- Ensure proper tire pressure
 - Change oil and oil filter
 - Reduce speed
 - All of the above
- 27.** Which nonrenewable resource do we have the smallest supply of in the U.S.?
- Petroleum
 - Natural Gas
 - Coal
 - Solar
- 28.** Which of these practices are good energy conservation practices?
- Recycling
 - Carpooling
 - Walking or riding your bike
 - All of the above

Energy/ Recycling Quiz- KEY

1. In order to produce each week's Sunday newspapers, how many trees must be cut down?

- a. 150
- b. 30,000
- c. 20
- d. **500,000**

2. According to the EPA, what kinds of materials are commonly recycled?

- a. **Paper, glass, plastic, metal, batteries, and compostable materials.**
- b. Paper, glass, plastic, batteries, and metal.
- c. Glass, plastic, metal, and compostable materials.
- d. Paper, plastic, metal, and batteries.

3. What percentage of newspapers are actually recycled in the United States?

- a. 10%
- b. **27%**
- c. 55%
- d. 80%

4. How many plastic bottles are thrown away, instead of recycled, every hour?

- a. 25,000
- b. 2,500
- c. **25,000,000**
- d. 250,000

5. How long would it take for a glass bottle to decompose in a dump?

- a. **4000 years**
- b. 5 months
- c. 30 minutes
- d. 250 years

6. Paper products make up the largest percentage of our trash, at about:

- a. 25%.
- b. 70%.
- c. 3.1415%
- d. **40%**

7. When was the first piece of recycled paper invented, and by whom?

- a. 400 B.C., the Greeks
- b. **200 B.C., the Chinese**
- c. 1547, the British
- d. 1945, the Americans

Energy/ Recycling Quiz- KEY

8. Americans throw away enough aluminum every month to rebuild:

- a. A Car
- b. An Xbox
- c. **The Entire Commercial Air Fleet**
- d. A Spaceship

9. What ways can you help save the planet?

- a. Re-use your plastic bottles and bags
- b. Reduce the amount of waste you produce
- c. Recycle
- d. **All of the above**

10. How many times can glass be recycled?

- a. **Forever**
- b. Twice
- c. Fifty-five times
- d. Once

11. The 3 R's of waste management refer to:

- a. Reading, Writing, Arithmetic
- b. **Reduce, Reuse, Recycle**
- c. Rock, Reggae, R&B
- d. There is no such thing as the 3 R's

12. Can trash be used to create energy?

- a. Never
- b. Only the recyclable materials
- c. Only the non-recyclable materials
- d. **Always**

13. What can you make with old plastic bottles?

- a. Plastic, lumber, and furniture
- b. Toys and rulers
- c. Shirts and bags
- d. **All of the above**

14. How much of the energy in your home goes to heating and cooling?

- a. **33%**
- b. 50%
- c. 3%
- d. 100%

Energy/ Recycling Quiz- KEY

15. Which type of lightbulb is most energy efficient?

- a. **Fluorescent**
- b. Incandescent
- c. Broken
- d. Halogen

16. Which household activity consumes the most water?

- a. **Washing clothes**
- b. Doing the dishes
- c. Taking a bath
- d. Washing the cat

17. How much money would you and your family save each year by switching five incandescent bulbs with five fluorescent bulbs?

- a. \$200
- b. **\$45**
- c. \$1.99
- d. You wouldn't save any money because incandescent bulbs are more energy efficient.

18. Which device consumes the most power when in standby mode?

- a. TV
- b. Kindle
- c. Laptop
- d. **DVR with a digital cable box**

19. What is the easiest way to save energy?

- a. Adding more insulation
- b. **Caulking windows and doors**
- c. Buying surge protectors
- d. None of the above

20. Which of the following uses the least amount of energy in the kitchen?

- a. Stove
- b. Toaster oven
- c. **Microwave**
- d. Refrigerator

21. Which of the following is the biggest power sucker in homes?

- a. Dryer
- b. **Refrigerator**
- c. Iron
- d. Pencil sharpener

Energy/ Recycling Quiz- KEY

22. How much CO2 does a gallon of gasoline add to the atmosphere?

- a. **20 pounds**
- b. 30,000 pounds
- c. 5 pounds
- d. 1 pound

23. How much energy from a coal power plant makes it to customers as electricity?

- a. $\frac{1}{4}$
- b. **$\frac{1}{3}$**
- c. $\frac{1}{2}$
- d. $\frac{2}{5}$

24. Estimates of what U.S. fuel resource have grown 40% since 2006?

- a. **Natural gas**
- b. Solar
- c. Wind
- d. Geothermal

25. True or false: solar power can run while the sun isn't up.

- a. **True**
- b. False

26. How can you conserve energy in a car or truck?

- a. Ensure proper tire pressure
- b. Change oil and oil filter
- c. Reduce speed
- d. **All of the above**

27. Which nonrenewable resource do we have the smallest supply of in the U.S.?

- a. Petroleum
- b. **Natural Gas**
- c. Coal
- d. Solar

28. Which of these practices are good energy conservation practices?

- a. Recycling
- b. Carpooling
- c. Walking or riding your bike
- d. **All of the above**