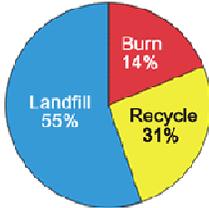


## Earth Quest Cache Cards

### Quest 1: Trash

#1-1 - What percentage of our trash is recycled?

WHAT WE DO WITH OUR TRASH



Source:  
<http://www.eia.doe.gov/kids/energyfacts/sav>

#1-2 - The average person discards 7.5 pounds of garbage every day.

How much trash does one of you throw away in two days?



### Quest 2: Plastics

#2-1 - Plastic comes in many forms. Use Diagram 2 to identify the type of plastic used to make water bottles.

How many vowels are in the abbreviation for this type of plastic?



#2-2 - The energy saved by recycling one plastic bottle rather than make a new one from scratch is enough to power a single 60-watt bulb for six hours.

How many hours could we light the bulb if we recycled 100 bottles?



### Quest 3: Water

#3-1- The average person in America uses up to 170 gallons of water each day.

If we were able to reduce our water usage by 50%, how much water would ONE person save in 1 day?



#3-2 - It takes approximately 6 gallons of water to flush a regular toilet. If a family were to flush one time less each day, how much water would the family save in one week?



2-1 <b>Diagram 2</b>	
	<b>Polyethylene Terephthalate Ethylene</b> <b>PETE</b> PETE goes into soft drink, juice, water, detergent, and cleaner bottles. Also used for cooking and peanut butter jars.
	<b>High Density Polyethylene</b> <b>HDPE</b> High Density Polyethylene HDPE goes into milk and water jugs, bleach bottles, detergent bottles, shampoo bottles, plastic bags and grocery sacks, motor oil bottles, household cleaners, and butter tubs.
	<b>Polyvinyl Chloride</b> <b>PVC</b> PVC goes into window cleaner, cooking oils, and detergent bottles. Also used for peanut butter jars and water jugs.
	<b>Low Density Polyethylene</b> <b>LDPE</b> LDPE goes into plastic bags and grocery sacks, dry cleaning bags, flexible film packaging, and some bottles.
	<b>Polypropylene</b> <b>PP</b> PP goes into caps, disks, syrup bottles, yogurt tubs, straws, and film packaging.
	<b>Polystyrene</b> <b>PS</b> PS goes into meat trays, egg cartons, plates, cutlery, carry-out containers, and clear trays.
	<b>Other</b> <b>OTHER</b> Includes resins not mentioned above or combinations of plastics.

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Use these clues for the extra caches →

#### Quest 4: Renewable Energy

#4-1 - Energy to provide electricity for our homes comes in many forms. Use the diagram to answer the question. What type of renewable energy comes from trees and other plants? Use Diagram 4 to help you.



#4-2 - A compact fluorescent light bulb (CFL) will save about \$30 over its lifetime and pay for itself in about 6 months.

How much money could you save by replacing 6 regular light bulbs in your home with CFLs?



#### Quest 5: Metals

#5-1 - Recycling just one aluminum can saves enough energy to run a 100-watt bulb for 20 hours, a computer for 3 hours, or a TV for 2 hours. How many aluminum cans would you need to recycle to watch 20 hours of SpongeBob cartoons?



#5-2- On average a little more than 9,000 steel cans are removed from landfills with a magnet every minute.

Based on this rate, how many steel cans are removed in one hour (60 min)?

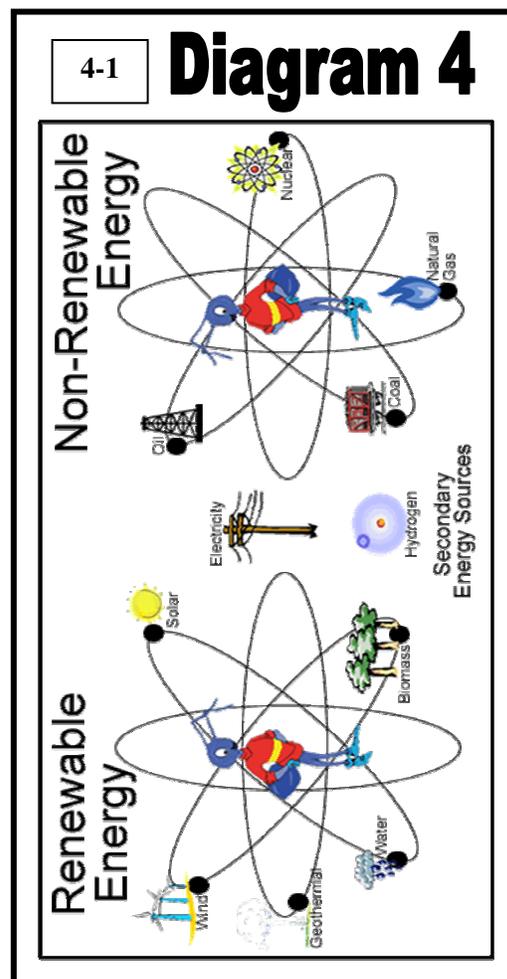


#### Quest 6: Glass

#6-1 - Glass containers can be recycled endlessly. If we recycle 10 glass containers, we can save enough energy to operate a computer for 200 minutes. Based on this rate, how long could we power a computer by recycling just one glass jar?



#6-2 - Every ton of glass that is recycled saves one ton of raw materials: 1,300 pounds of sand, 410 pounds of soda ash and 380 pounds of limestone. Silicon is an element in sand. What is its atomic number?



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**Quest 7: Paper**

#7-1 - If we would recycle 1 ton of newspaper, we would save 17 trees.

How many tons of newspaper would need to be recycled to save 200 trees? Round your answer to the nearest whole number.



#7-2 - The average person uses 7 trees a year in paper, wood, and other products made from trees.

How many trees will you have used from the time you were born to the age of 16?



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**Quest 8: Endangered Species**

#8-1 - One in four mammals, one in eight birds, and one-third of all amphibians appear on the Red List of endangered species and may become extinct within the next 50 years. If there are an estimated 4500 species of mammals, how many face extinction in the next 50 years?

#8-2 - Bald eagles and other raptors have made a great comeback after the banning of DDT in the 1970s and our efforts to protect them and their habitats.

How much has the number of breeding pairs of bald eagles increased in the US from 1986 to 2006? Use Diagram 8 to answer the question.

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8-2

**Diagram 8**

