

Energy in your life appliances and electronics

[Science](#), [Biology](#)



PART Energy in your Life Appliances and Electronics Give 3 mechanisms you can use to manage the energy used by your computer.

Three mechanisms for helping individuals to conserve and limit the energy used by their computers are as follows (Energy-Efficient Computer Use).

1. Turn off your computer completely if it will not be use for more than 2 hours.

2. Turn off the computer's monitor if you will not be at the computer for more than 20 minutes.

3. Finally, take advantage of the different power saving setting options available for you computer; this alone will be beneficial and help you to conserve energy.

2. What information is given to the consumer on the " Energy Guide label" of all appliances?

A number of things are included on the Energy Guide Label provided with all appliances. Firstly it lists the make, model, and size information about the given product. The label will also include the possible average yearly cost of using this appliance, which is based on the ever-changing costs of energy in ones location, key features of the appliance. Lastly it will contain the " Energy Star" logo, which acknowledges that this product meets certain energy efficiency requirements (Tips: Shopping for Appliances).

3. According to the bar graph, which household appliance uses the most electricity?

How many kilowatts per year does an average clothes dryer use?

How much does it cost per year to run the average refrigerator?

According to the graph, in an average household it is the hot water heater

that consumes the largest amount of electricity per year. The next largest amount of energy consumed is by the clothes dryer, which averages about 1000 kwh per year. An average refrigerator appears to use, approximately, 700 kwh per year. Using the information provided on the website the cost to run an average refrigerator in one year is about \$110 per year (Tips: Appliances)

Buying & Making Electricity

4. What is "green power"?

"Green Power" is the term given to the power gained from purchasing renewable electricity straight from the suppliers. Generally purchasers receive vouchers for their purchases.

5. What is "green pricing" and would you choose it if it was offered by your electrical company? Explain why you would or why you wouldn't choose it.

"Green pricing" is the prices given to those individuals that wish to purchase renewable energy directly from their company that provides it. This is something that I would consider participating in, however I would be more likely to invest in energy alternatives on my own and eliminate the need for anymore middle men.

Home Weatherization

6. Describe two simple methods you can use to detect air leaks in your house.

Visual inspections inside and outside your home can help you determine if you possibly have a air leak, check the areas around light switch plates and sockets. You can also the household cable lines, which can also lead to air leaks (Detecting Air Leaks).

7. Describe TWO methods you can do (besides finding and sealing leaks) that can help save energy and money during fall and winter.

Two very simple things that one can do to save energy in the fall and winter months includes, opening up all the southern facing windows during the day to allow the sun to help naturally heat your home and turning town the temperature on the hot water heater (Fall and Winter Energy-Saving Tips).

9. In the winter, how does heat flow in your house?

There are three ways the heat flows through house. Conduction, which is how heat moves through a material, Convection, which is the way that heat moves around through liquids and gases, and finally, radiant heat is the heat absorbed by things in its path. The use of insulation is helpful to primarily reduce the conduction of heat throughout the home (Insulation).

10. What is an R-value?

R-Values are the rating system to determine the amounts of conductive heat it can rest. The higher the R-Value the better the insulation (Insulation)

Water Heating

11. What is a “ Tankless” or “ Demand-type” water heater? Give one positive aspect and one negative aspect of this type of water heater.

Tankless water heaters are exactly as they sound they are a heating element for the water demands without an actual tank. One great positive is that these systems can lead to greener energy efficiency and the negative includes the fact that more water is wasted while one must wait for the water to get hot.

12. How can you test whether or not you would benefit from a low flow showerhead?

In order to determine if you would benefit from replacing your existing showerhead with a low flow showerhead is to give your shower the following test. Turn on your shower at normal setting and count how many seconds it takes for the water to fill up a gallon bucket to the 3.8 liter mark. If it takes less than 20 seconds then you would probably be advised to get a low flow showerhead (Reduce Hot Water Use for Energy Savings).

13. Out of the 15 listed, list 6 of them that you could do (or that you are currently doing!) at your own residence.

Realistically I see myself being able to lower the temperature on the hot water heater, sealing any leaks, and installing low flow showerheads. I already wash the majority of my clothing on cold, I already take showers more often than baths, and finally, I never let the water run too long when brushing my teeth or taking a shower (15 Ways to Save on Your Water Heating Bill).

PART 2: The Ideal House

14. Explain how the gutters and landscape have been designed for water conservation.

The gutters were screened in order to filter out any debris before the rain water falls into cisterns for the pumping system (Live Green Live Smart Institute).

15. What is xeriscaping?

Xeriscaping is the when one chooses to landscape an area with plant life that required very little or no irrigation necessary

16. Describe one of the exterior characteristics that you could implement in your own life (Live Green Live Smart Institute).

It has always been a goal of mine at some point in the future to actively implement solar paneling for energy storage. That is what I would definitely take away from this "green house" (Live Green Live Smart Institute).

17. Give two ways the builders reused materials in the kitchen and/or living room.

The hardwood floors were reused parts of original floor, floor from an old gymnasium, and from another house being torn down and the backsplash in the kitchen is made of recycled materials (Live Green Live Smart Institute).

18. How do they increase the R-value of the bedroom windows?

The use of blinds and curtains can increase the efficiency and the R value of the proper glass installation (Live Green Live Smart Institute).

19. In a few sentences, describe how the solar water tank works.

Essentially the water in a solar powered tank relies on the heat of the sun. The collectors capture and store the sunlight energy and when hot water is needed then the water is pumped through the heating elements to achieve hot water (Live Green Live Smart Institute).

20. The kitchen sink does not have a garbage disposal. Why is that a feature of a "green" house?

Although garbage disposals are convenient they are not the greenest of technologies. Many environmentalists feel that households should engage in producing their own compost, instead of washing food scraps down the drain into a garbage disposal (Paster).

Work Cited

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