

# TIC TAC ENERGY


# Tic Tac Energy

**\*Instructions for Carnival game:** Divide students into two teams. One team will be the ILs; the other team will be the CFLs. Since incandescent bulbs were invented first, the ILs go first. Choose a spokesman from the ILs and give a question to the team. The team can decide on an answer but the spokesman must deliver the answer. If correct they may place their marker on the Tic Tac Energy board. Play then alternates between the ILs and the CFLs. The students on each team take turns being spokesman and placing the markers. The goal is to get three in a row on the board (horizontal, vertical, or diagonal) before time is up. If successful start a new game with the CFLs going first.

## QUESTIONS

1. What does CFL stand for?

**Compact Fluorescent Light bulb**

2. What part of an incandescent bulb glows white-hot?

**Filament**

3. Which type of bulb delivers 90% of its energy as thermal energy and 10% as radiant?

**IL (incandescent)**

4. Which type of bulb is most energy efficient?

**CFL (fluorescent)**

5. Which unit is a measure of light output, watt or lumen?

**Lumen**

6. The average household uses what percentage of energy for lighting, 1%, 11%, or 55%?

**11%**

7. Which type of light bulb is often referred to as "standard"?

**IL (incandescent)**

8. Which type of light bulb lasts longer?

**CFL (fluorescent)**

9. Which type of light bulb contains very small amounts of mercury?

**CFL (fluorescent)**

10. Which type of light bulb is least expensive to purchase but more expensive to use?

**IL (incandescent)**

11. The rate at which a light bulb uses electricity (called power), is measured in what electrical unit?

**Watt**

12. What do you call one thousand watts?

**Kilowatt**

13. What color is the Energy Star symbol?

**Blue**

14. What type of bulb is brighter than a fluorescent bulb of the same wattage and uses even less energy?

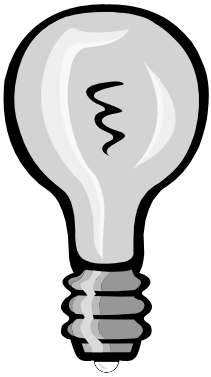
**LED**

15. Which type of light bulb has a filament made of tungsten?

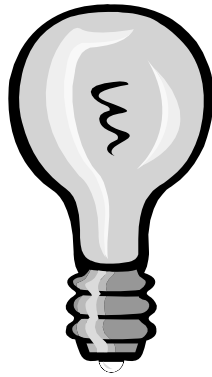
**IL (incandescent)**

16. Would a CFL that is equivalent to a 60-watt IL be labeled as more or less than 60 watts?  
**Less**
17. Light is a type of what major form of energy?  
**Radiant**
18. Which type of light bulb was most used by your parents as they were growing up?  
**IL (incandescent)**
19. Which type of light bulb is often manufactured in the shape of a spiral?  
**CFL (fluorescent)**
20. Which type of light bulb was commonly used in string lights at holiday times?  
**IL (incandescent)**
21. What new lighting technology is now being used for holiday string lights: CFL or LED?  
**LED**
22. Are the long light tubes commonly used in stores and schools considered to be fluorescent or incandescent?  
**Fluorescent**
23. What does the “L” in LED stand for?  
**Light**
24. What does the “E” in LED stand for?  
**Emitting**
25. What does the “D” in LED stand for?  
**Diode**
26. Name one other type of Radiant Energy besides light.  
**Radio, microwave, infrared, ultraviolet, x-ray, or gamma ray**
27. The electricity used to light our homes is produced mainly from what nonrenewable energy source?  
**Coal**
28. If you replace one IL in your home with one CFL, approximately how much money will it save over its lifetime, \$3 or \$30?  
**\$30**
29. Which type of light bulb will you soon be unable to purchase in the store?  
**IL (incandescent)**
30. Does a CFL last 2 times longer, 10 times longer, or 100 times longer than an IL?  
**10 times longer**

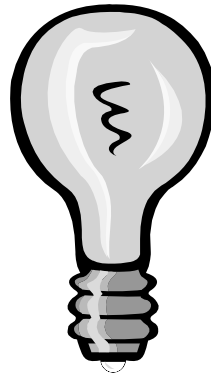
**\*Instructions for Classroom play:** Give each team of two students a Tic Tac Energy board and one-half of the questions (1-15 or 16-30). One student is the CFL and the other is the IL. Students alternate asking each other the questions and, when correct, placing their markers on the board until one student gets “three in a row”. They can play several times or even trade questions....it doesn’t matter, they will know the answers to all of the questions after playing several times.



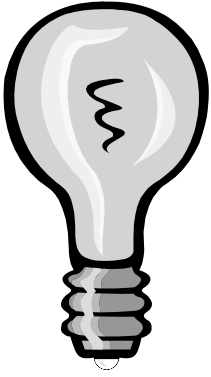
И



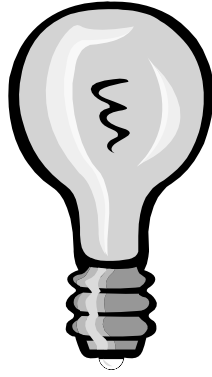
И



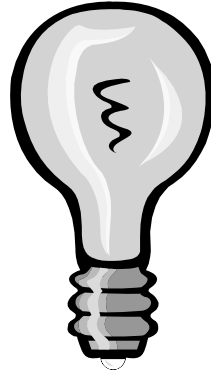
И



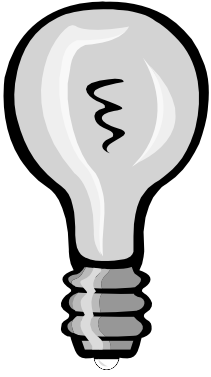
И



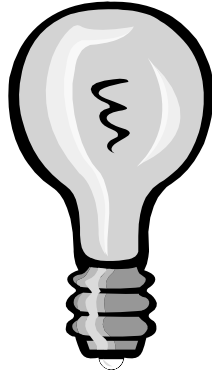
И



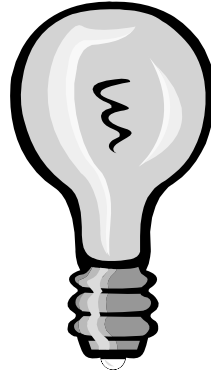
И



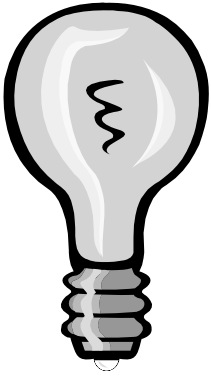
И



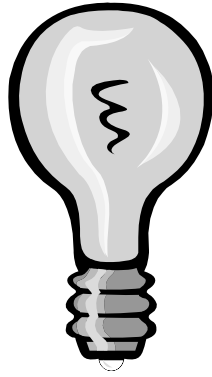
И



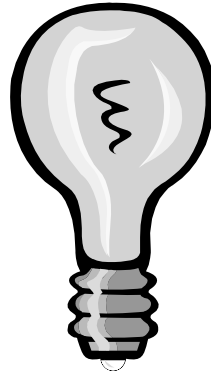
И



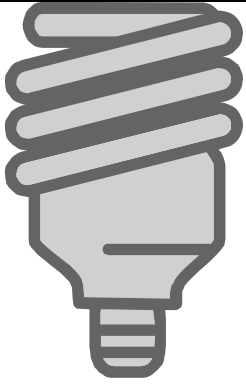
И



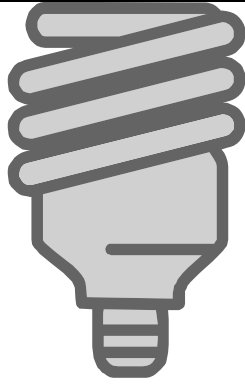
И



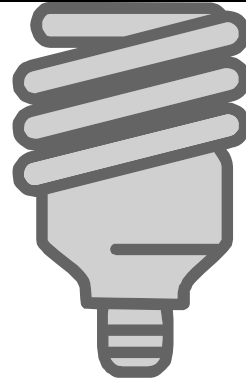
И



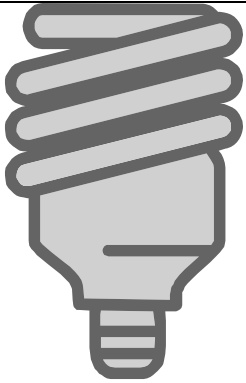
**CFL**



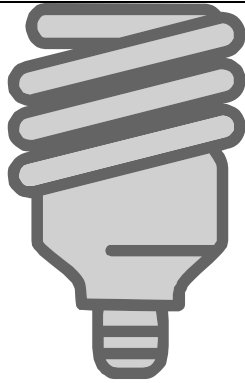
**CFL**



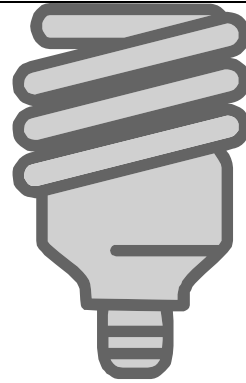
**CFL**



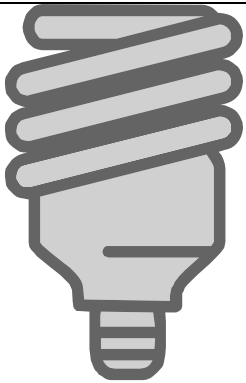
**CFL**



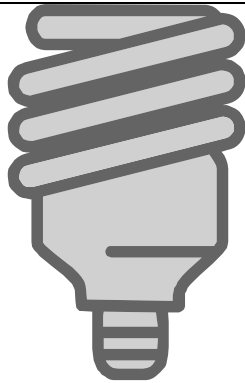
**CFL**



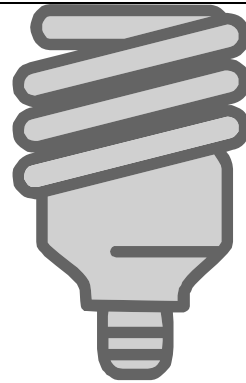
**CFL**



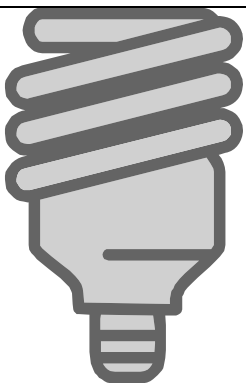
**CFL**



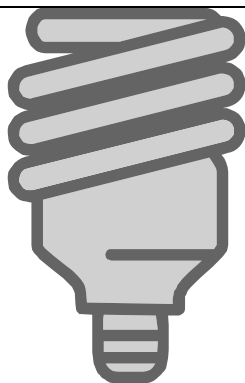
**CFL**



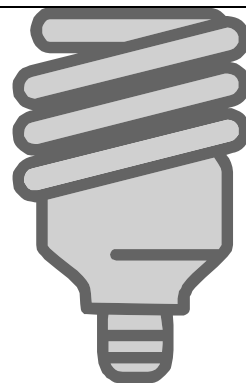
**CFL**



**CFL**



**CFL**



**CFL**