

ELECTRICITY QUEST

<http://www.andythelwell.com/blobz/>

Google: Blobz Guide to Electrical Circuits

1. Enter the website and read the helpful directions. Then click on the light bulb icon on the bottom left side. It will say "Section 1: What Makes Circuits Work?"
2. What are the properties of a complete circuit? Sketch the complete circuit shown on the screen.



| |
|----------------------------------|
| A complete circuit has... |
| |

3. Continue moving forward in the website and sketch an example of a circuit that will NOT work and explain why.



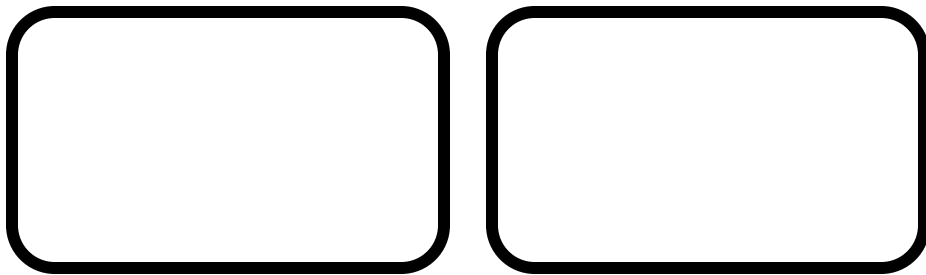
| |
|--|
| This circuit does NOT work because... |
| |

4. Sketch and label the 2 different power sources. Which one is more powerful? _____



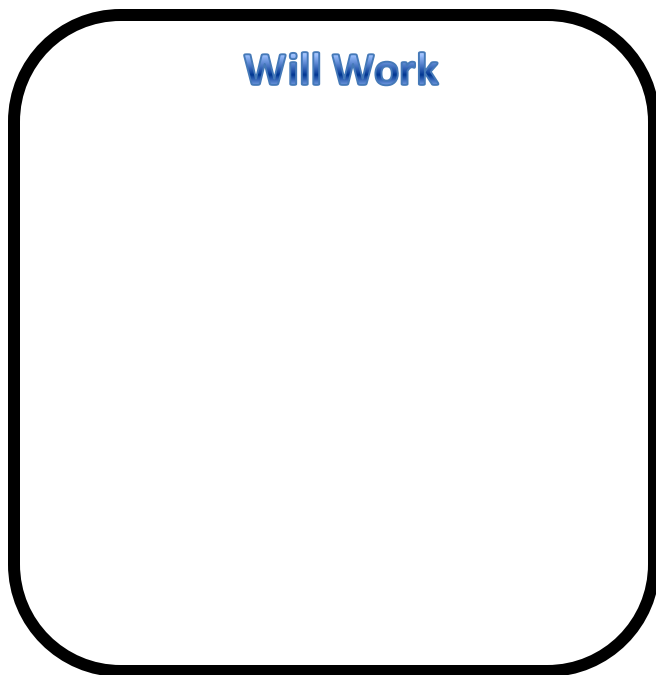
5. Click on the red word "mains" and define: _____

6. Sketch and label the correct and incorrect way to set up a double battery system.



7. Click on the word "cell" and define. _____

8. Before going on to the next section, click on the green arrow located at the bottom on the right side. Complete the task and sketch the circuits in the correct boxes below.



9. Click on the question mark at the bottom right to take the quiz. Record your score: _____

10. Now you may click on "Section 2: Conductors and Insulators" and begin reading.

11. Click on the red word "conductors" and define. _____

12. Give 3 examples of a good conductor: _____, _____, _____

13. Click on the red word "insulators" and define. _____

14. Give 3 examples of a good insulator: _____, _____, _____

15. Why is plastic coating useful in wiring? _____

16. Read through this section until you can not go further and click on the green arrow for the activity. Record the items that allowed the bulb to light. These items would be considered good _____. HINT: you have to click and move the clips so that both are touching the item in the circuit!!!

| Items the Lit the Bulb: |
|--------------------------------|
| |

17. Take the quiz and record your score. _____
18. Now move on to "Section 3. All About Switches" and begin reading.
19. Why are switches useful? _____
20. Sketch and label both types of switches.



21. Complete the activity and list the correct items in the correct box from the activity.

| |
|------------------|
| No Switch |
|------------------|

| |
|-----------------|
| 1 Switch |
|-----------------|

| |
|----------------------|
| Many Switches |
|----------------------|

22. Take the quiz and record your score. _____
23. Proceed to "Section 4. Changing Circuits" and begin reading.
24. What happens when you add more bulbs to a circuit? _____
25. What happens when you add more cells to a series circuit? _____
26. Why does this happen? _____
27. What could happen if you add too many cells? _____
28. What happens to bulbs as you lengthen and shorten the wires? _____
29. What makes a fair test when you are trying to change a circuit? _____

- 30. Perform the activity but be sure to make each one a fair test!
 - 31. Take the quiz and record your score. _____
 - 32. Move on to "Section 5. Circuit Diagrams" and begin reading.
 - 33. Click on the red word "component" and define. _____
-
34. In the box below, draw a sample circuit diagram and sketch the circuit components from the website (names and symbols).

Components

Sample Circuit

- 35. Complete the activity and record your accurate results in the chart below.

| | | | | | |
|----------------|--|--|--|--|--|
| Name | | | | | |
| Picture | | | | | |
| Symbol | | | | | |

- 36. Take the quiz and record your results. _____
- 37. If you have NOT earned all 5 "Gold Stars" located at the very top left of your screen, then go back and earn them by re-taking your quizzes. If you have earned them, proceed to the "BONUS" by clicking on the trophy that appears.
- 38. Print out the "BONUS" and attach to your web quest. Turn all papers in!