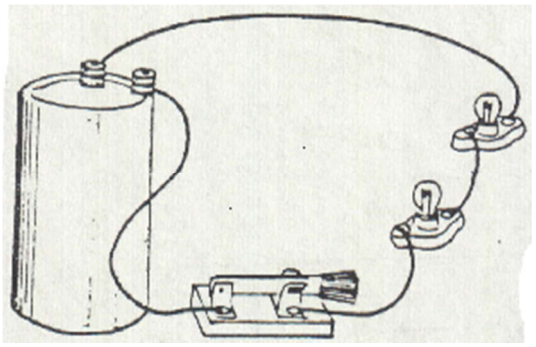
Working With Circuits Name_____ Block_____ Date_____

1. What kind of circuit it this? _____
2. How many paths do the electrons have to follow? _____
3. How many loads does this circuit have? _____
4. Is this circuit complete or incomplete? _____
5. Are the loads working? _____



6. If one bulb were to burn out, the other bulb would (stay lit, shut off).
7. Adding another bulb would make the other two give off (less light, the same amount of light).
8. This (is, is not) a good way to wire a home.

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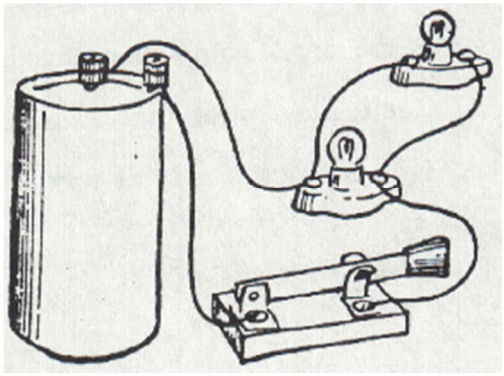
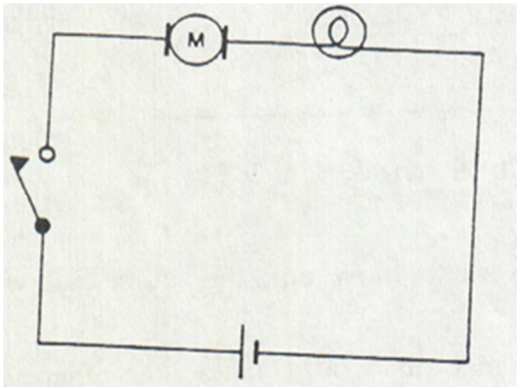
9. What type of circuit is this? _____
10. How many loads does this circuit have? _____
11. How many paths do the electrons have to follow? _____
12. Is this circuit complete or incomplete? _____
13. Are the loads working (will the bulbs light up)? _____



14. If one bulb were to go off, the other bulb would give off (more light, the same amount of light).
15. Adding another bulb would make each bulb give off (less light, the same amount of light).
16. Is this a good way to wire a home? _____

17. What type of circuit is this? _____

18. How many paths do the electrons have to follow? _____



19. How many loads does the circuit have? _____

    a. Name them: _____

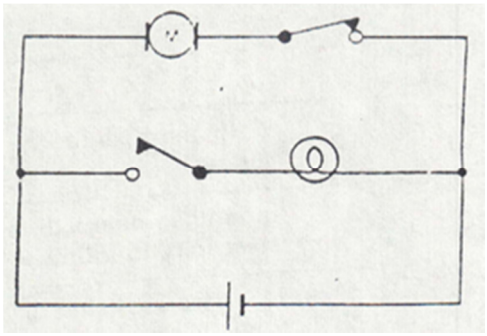
20. Is the circuit complete or incomplete? _____

21. Are the loads working? _____

22. Is your home wired this way? _____

23. What type of circuit is this? _____

24. How many paths do the electrons have to follow? _____



25. How many loads does the circuit have? _____

    a. Name them: _____

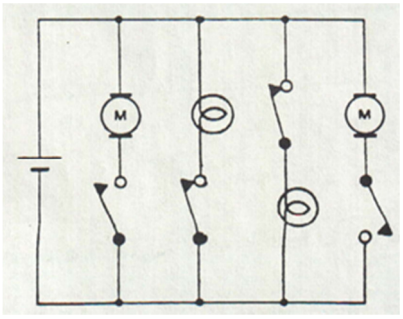
26. How many switches does the circuit have? _____

27. Which appliance is working? _____

28. Which appliance is not working? _____

29. Is your home wired this way? _____

30. What type of circuit is this? _____



31. How many paths doe the electrons have to follow? _____

32. How many loads does the circuit have? _____

    b. Name them: _____

33. How many switches does the circuit have? _____

34. Which load(s) is/are working? _____

35. Which load(s) is/are not working? _____

36. Is your school wired this way? _____

Check the Circuit:

Each phrase below describes either a series or parallel circuit. Which one is it? Put a check (✓) or (X) in the proper box. Each one only applies to one type of circuit.

Description:	Parallel Circuit	Series Circuit
37. Only one path for the electricity to follow.		
38. More than one path for the electricity to follow.		
39. Loads either work or shut off one at a time.		
40. All loads are on or all loads are off at once.		
41. Appliances share the voltage.		
42. Appliances do not share the voltage.		
43. Not a good way to wire a home.		
44. A good way to wire a home		
45. An extra bulb makes the others less bright.		
46. An extra bulb does not change the brightness of the other bulbs.		

Throw One Out:

In each of the following sets of terms or pictures, one of the terms/items does not belong. Cross out the one that does not match.

47. Parallel circuit loads must work together wiring in the school

48. Series circuit loads must work together wiring in the school

49. Electrical symbol   

50. Switch open complete circuit switch closed

51. Generator switch battery

Drawing Electrical Symbols:

Draw the following electrical symbols.

52.	Open switch		56.	Wire	
53.	Closed switch		57.	Motor	
54.	One dry cell		58.	Light bulb	
55.	Two dry cells				

True or False:

Choose whether the sentence is true or false.

59. (T) (F) A dry cell gives static electricity.
60. (T) (F) Static electricity lights our homes.
61. (T) (F) Static electricity causes lightning.
62. (T) (F) A safe place to stay during a lightning storm is under a tree.
63. (T) (F) Electricity is useful.
64. (T) (F) Electricity can be dangerous.
65. (T) (F) This school is wired in parallel.
66. (T) (F) Your home is wired in series.
67. (T) (F) A parallel circuit lets you shut off one appliance at a time.
68. (T) (F) Appliances wired in parallel share the electrical pressure (aka voltage).