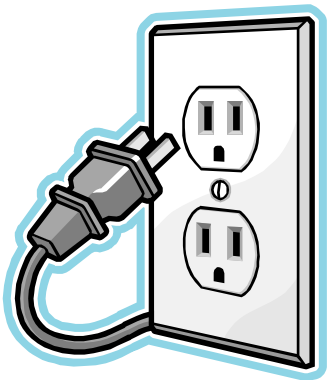
SERIES CIRCUIT



NAME _____ DATE_____

OBJECTIVE: Understand the structure of a series electrical circuit

Background

Light bulbs are said to be in series when they are in the same loop or circuit. All of the light bulbs share the available electrical energy equally.

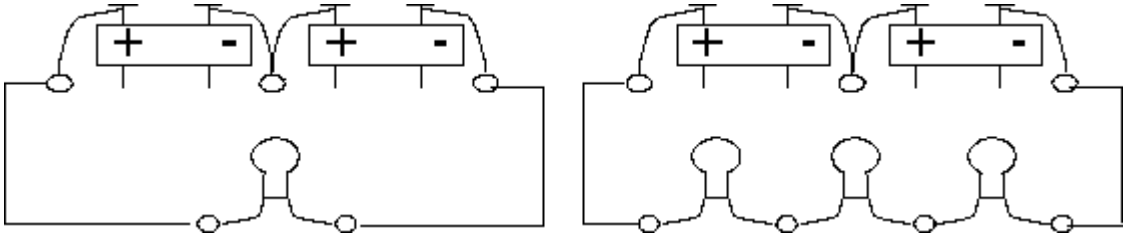
METHODS

Materials

- Power Pack
- Powerpack leads
-Crocodile clips
- 3 light bulbs and lamps

Procedure

1. Connect up the simple circuit with 2 batteries or a power pack. Light the lamp.



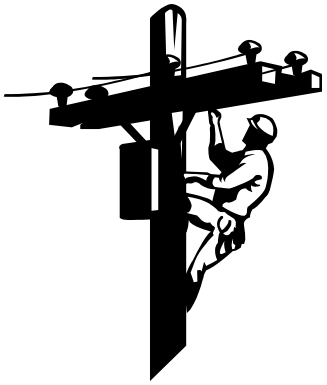
2. Now replace the single light bulb by two in a row. Record your results
3. Now replace the two light bulbs by three. Record your results
4. Remove one bulb from its socket. Record your results

Conclusions

1. What occurred when you when you added additional lights?

2. What do you think would happen if you connected 5 bulbs in series?

PARALLEL CIRCUIT



NAME _____ DATE_____

OBJECTIVE: Understand the structure of a parallel electrical circuit

Background
Light bulbs are in parallel if they are side-by-side. They still share the electrical energy but they affect each other differently than if they were in series.

METHODS

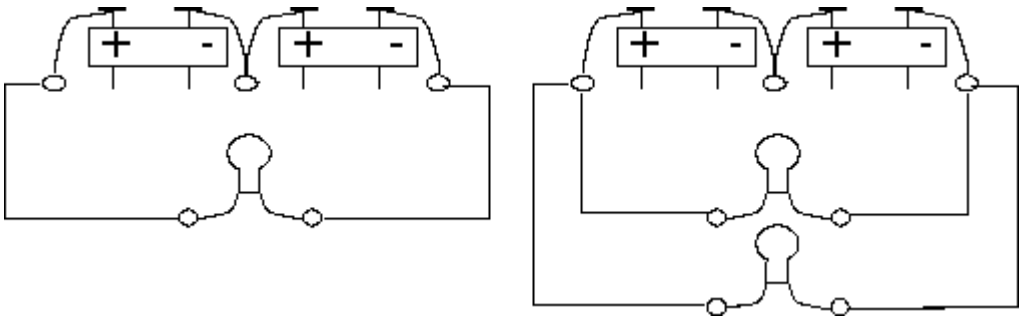
Materials

- Power Pack
- Powerpack leads
- Crocodile clips
- 3 light bulbs and lamps

Procedure

1. Connect up the simple circuit with 2 batteries or a power pack.

2. Now replace the single light bulb by two in parallel as shown.



3. Remove one bulb from its socket. Record your results

4. How does the operation of this parallel circuit compare to the series circuit you worked with earlier?

CONCLUSIONS

1. Describe what happened when you removed the light bulb. Where there any changes to the other light

2. Describe the advantages of a parallel circuit