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FAULT FINDING

INFORMATION

You may often find that circuits do not always work when you connect them up. There are a few useful things that you can do before you panic and call in the teacher.

CHECK THAT:-

1. the batteries are all connected up the right way,
2. the wires are all connected up and make a complete circuit,
3. the batteries are not flat,
4. the bulb has not blown,
5. the bulb holder is not broken,
6. your meter is connected properly and that the right buttons are pushed in (there should be a poster on the wall to show you),
7. the equipment is plugged in and is switched on,
8. Check that you have checked everything.

If you have checked all that could have gone wrong and your circuit still doesn't work now panic and call in the teacher!

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TASK

Around the room are circuits that are not working. OR if your teacher says it is safe set up a circuit that will not work for another group.

1. **Your task is to identify what is wrong with the circuit. Try to fix the circuit by following the checklist. MAKE SURE THAT YOU PUT THE CIRCUIT BACK AS YOU FOUND IT AFTER YOU HAVE FOUND OUT WHY IT DOES NOT WORK**.

Did you find the following faults?

1. cells connected the wrong way (beware that these will go flat unless they have a switch)
2. flat battery
3. a wire across the bulb, thus shorting out the lamp
4. a blown bulb
5. a broken wire
6. a wire connected without the insulation removed.
7. a fuse in the circuit which is too low powered and blown
8. a bulb holder wrongly wired so the wires are shorting out the bulb
9. a blown bulb in a series circuit
10. a blown bulb in a parallel circuit
11. the circuit is incomplete.