 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Compare and explain current flow in different parts of a parallel circuit.



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| --- | --- | --- | --- | --- |
| Know  1 | |  | Apply  2 | |
| Ideas | |  |  |  |
| K1 | Current is a movement of electrons and is the same everywhere in a series circuit. Current divides between loops in a parallel circuit, combines when loops meet, lights up bulbs and makes components work. |  | A1 | Describe how current changes in series and parallel circuits when components are changed. |
| A2 | Turn circuit diagrams into real series and parallel circuits, and vice versa. |
| K2 | Around a charged object, the electric field affects other charged objects, causing them to be attracted or repelled. The field strength decreases with distance. |  | A3 | Describe what happens when charged objects are placed near to each other or touching. |
| A4 | Use a sketch to describe how an object charged positively or negatively became charged up. |
|  | |  |  |  |
| Facts | |
| K3 | Two similarly charged objects repel, two differently charged objects attract. |  | A5 |  |
|  | |  |  |  |
| Key words | |
| K4 | **Negatively charged:** An object that has gained electrons as a result of the charging process. |  |  |  |
| K5 | **Positively charged:** An object that has lost electrons as a result of the charging process. |  | A6 |  |
| K6 | **Electrons:** Tiny particles which are part of atoms and carry a negative charge. |  |  |  |
| K7 | **Charged up:** When materials are rubbed together, electrons move from one surface to the other. |  |  |  |
| K8 | **Electrostatic force:** Non-contact force between two charged objects. |  |  |  |
| K9 | **Current:** Flow of electric charge, in amperes (A). |  |  |  |
| K10 | **In series:** If components in a circuit are on the same loop. |  |  |  |
| K11 | **In parallel:** If some components are on separate loops. |  |  |  |
| K12 | **Field:** The area where other objects feel an electrostatic force. |  |  |  |
| 3 | Extend |  |  |  |
| E1 | Compare the advantages of series and parallel circuits for particular uses. |  |  |  |
| E2 | Evaluate a model of current as electrons moving from the negative to the positive terminal of a battery, through the circuit. |  |  |  |
| E3 | Suggest ways to reduce the risk of getting electrostatic shocks. |  |  |  |
| E4 |  |  |  |  |
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|  |  |  |  |  |
| E5 |  |  |  |  |
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