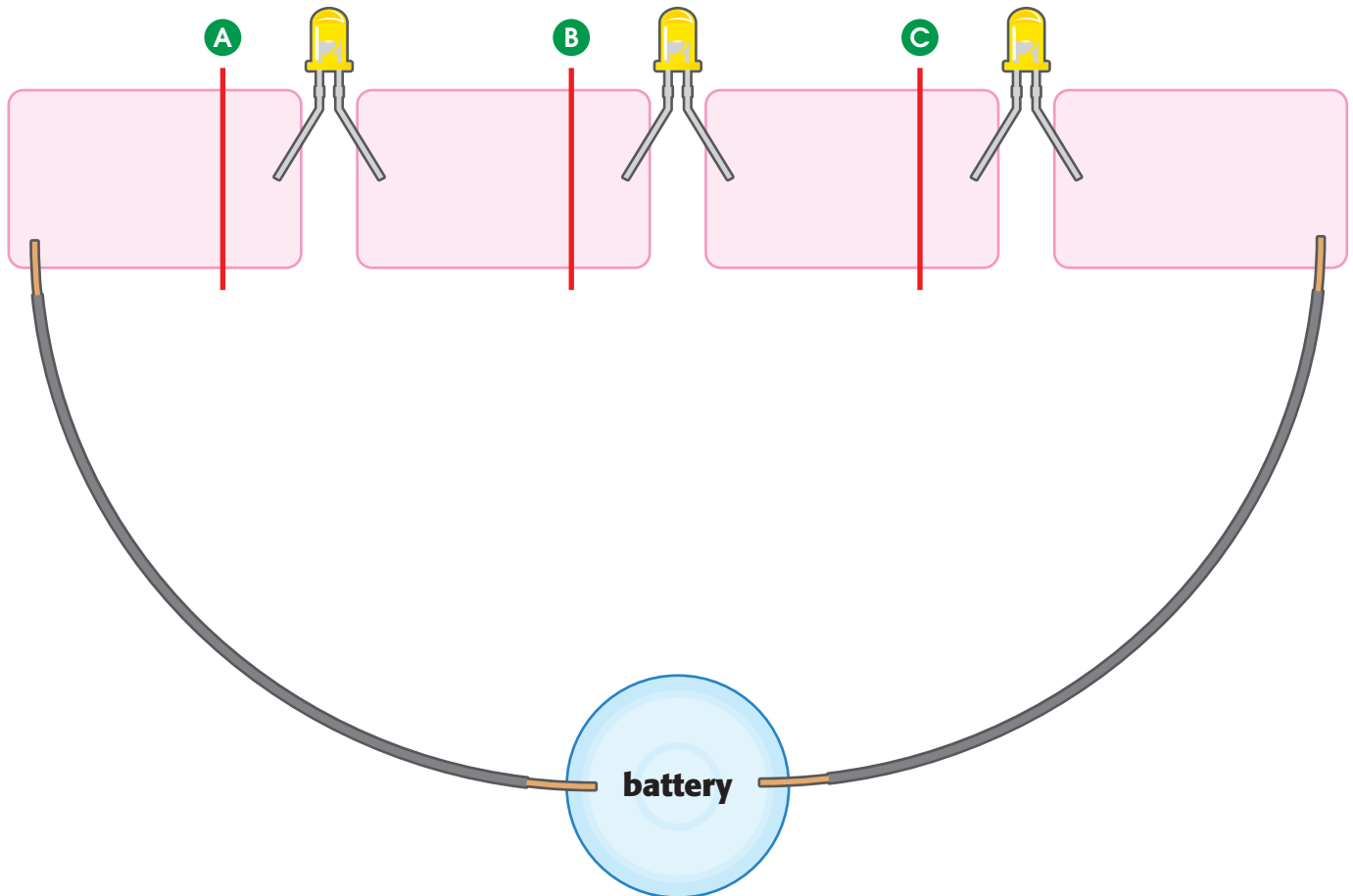







## SERIES VS. PARALLEL

A Template for Building a **Series Circuit**

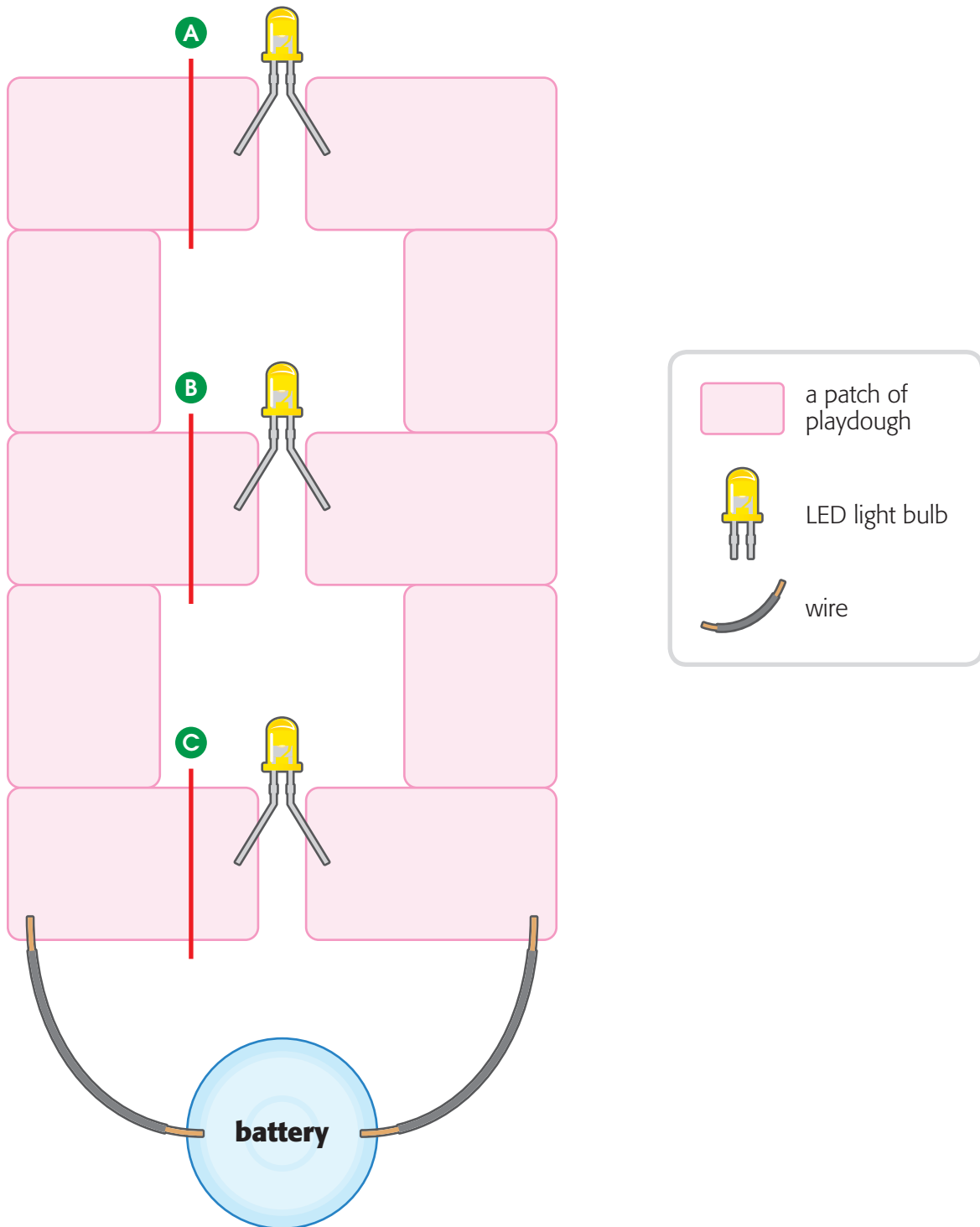


|   |                      |
|---|----------------------|
|  | a patch of playdough |
|  | LED light bulb       |
|  | wire                 |



## SERIES VS. PARALLEL

A Template for Building a **Parallel Circuit**





### SERIES VS. PARALLEL

### My Observation Chart

#### What happened to the lights?

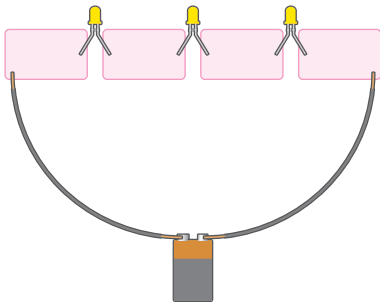
(Did the light bulbs stay lit? If yes, were they brighter, dimmer, or as bright as before?)

Line **A** was cut.

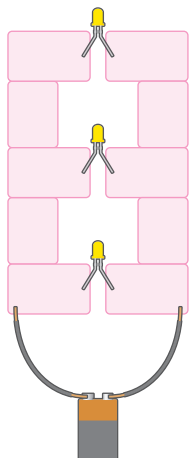
Line **B** was cut.

Line **C** was cut.

#### Series Circuit



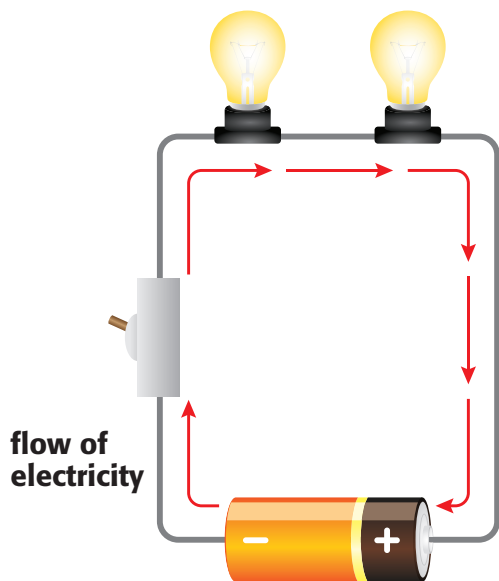
#### Parallel Circuit



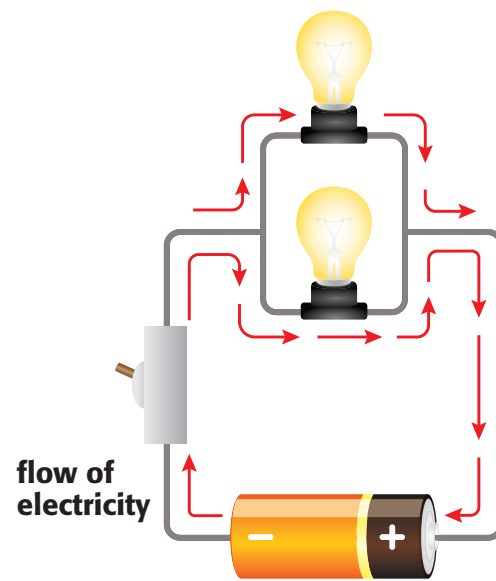
**SERIES VS. PARALLEL**

# More About Series Circuits and Parallel Circuits

As mentioned in the experiment, the components in a circuit can be connected in two ways: series and parallel. Each type of circuit has its advantages and disadvantages.

**Series Circuit**

- allows electricity to follow exactly one path that connects all components
- all components stop working if any one of them fails
- devices cannot be turned on or off individually
- the speed of electrical flow (current) is the same for all components
- efficient for sending electricity over long distances

**Parallel Circuit**

- different components are connected to different branches of the wires
- other components continue to work even if one fails
- devices can be turned on or off individually
- the electrical power (voltage) is the same for all devices
- efficient for distributing power to multiple devices