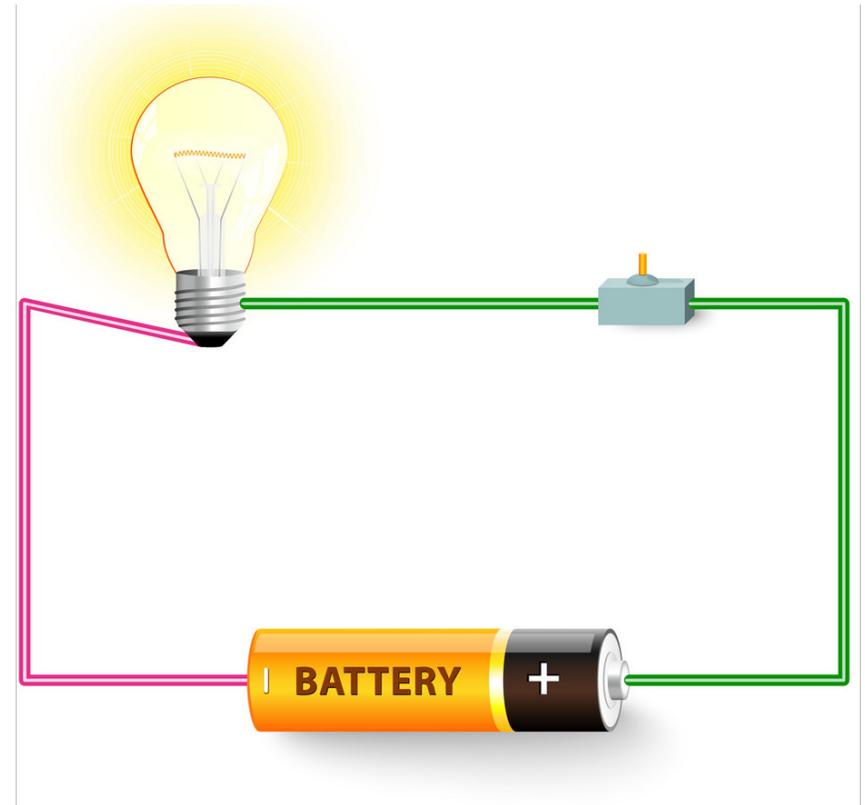


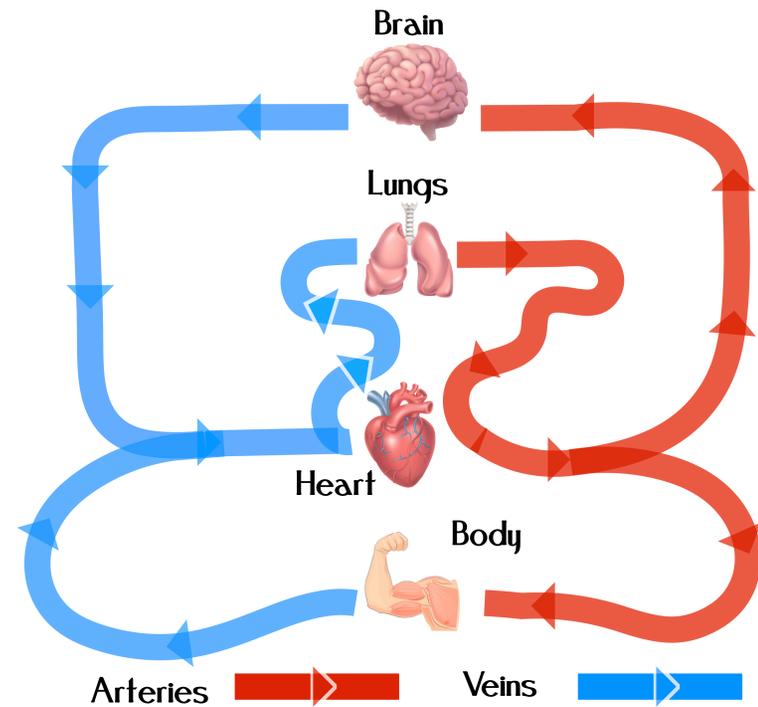
What is a Circuit?

1. (*noun*): A roughly circular line, route, or movement path that starts and finishes at the same place. “We watched a race car drive the circuit.”
2. (*noun*): A series of athletic exercises performed consecutively in one training session. “We worked hard doing a Tabata circuit in P.E. today.”
3. (*noun*): A complete and closed path around which a circulating electric current can flow. “A flashlight works by creating a circuit between a battery and a bulb.”

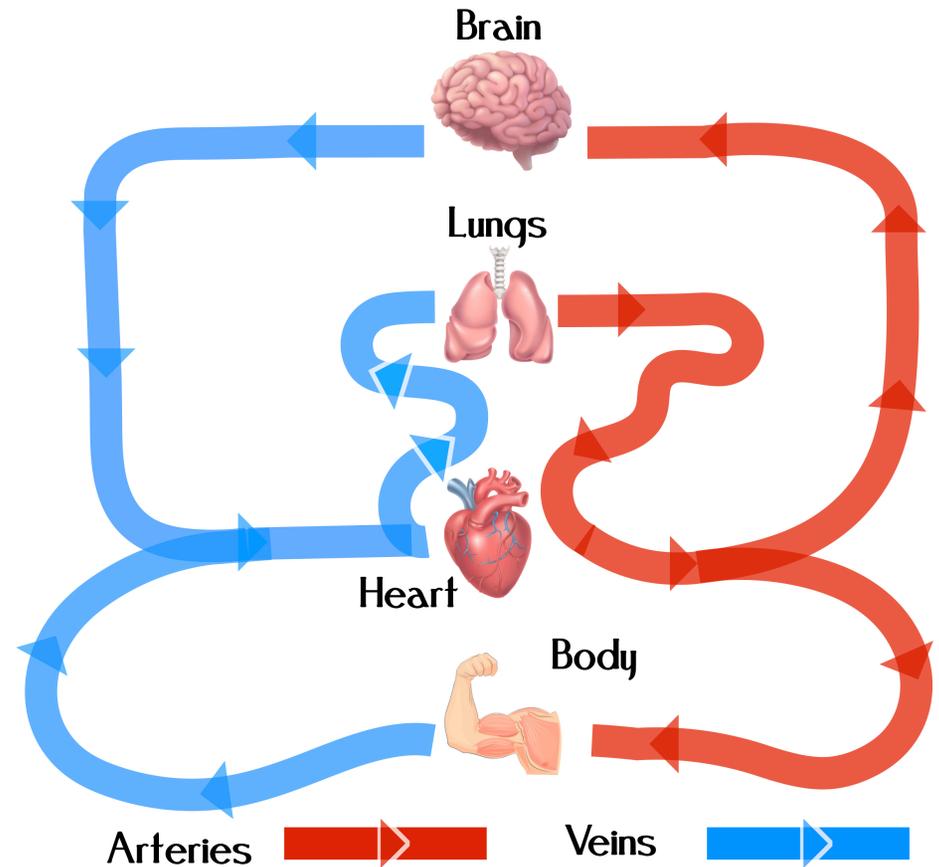
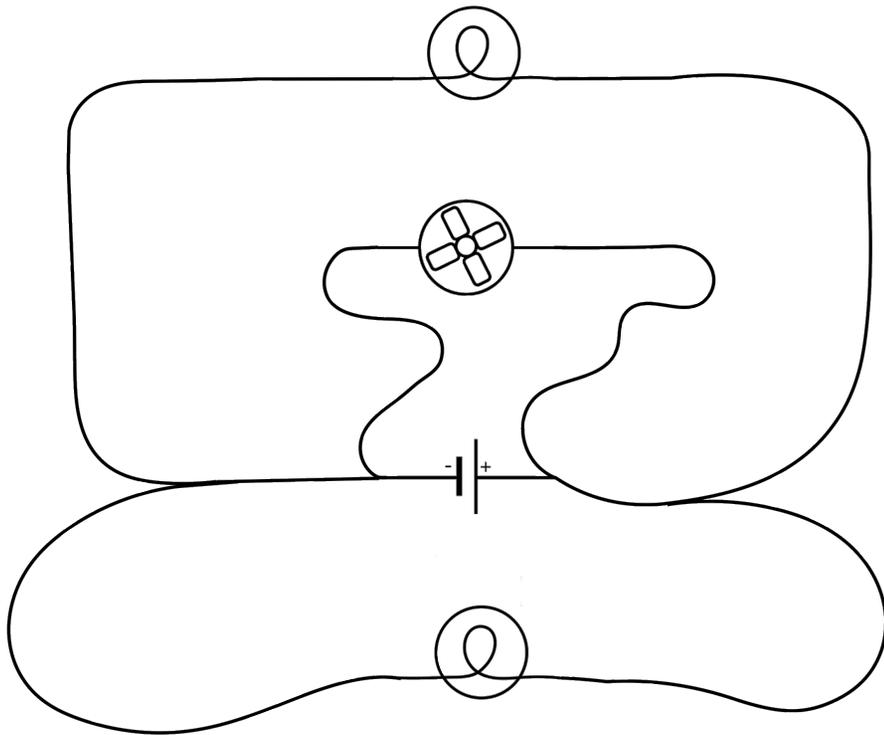


What is the Circulatory System?

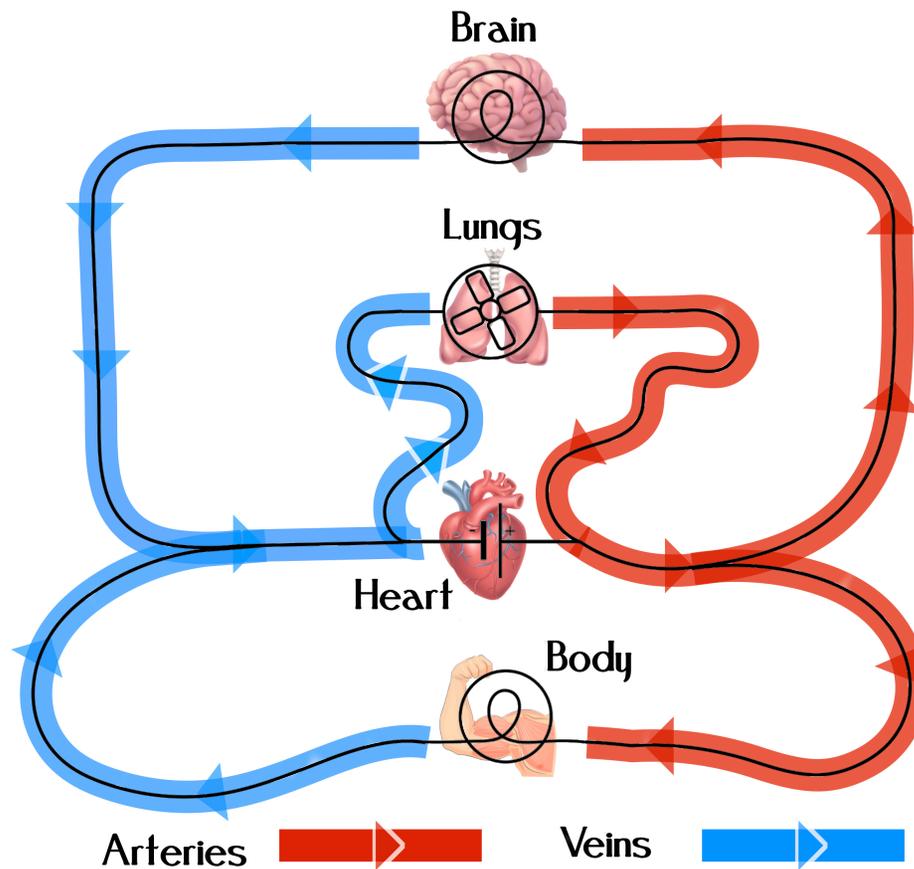
1. (*noun*): the system that circulates blood through the body, consisting of the heart, blood vessels, and the blood.



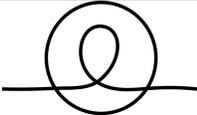
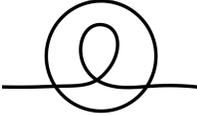
What is the Connection?



What is the Connection?



Circulatory Circuit Key Card

Electric Circuit	Circulatory System
 Battery	 Heart
 Wire	 Blood Vessel
 Lightbulb	 The Body
 Lightbulb	 Brain
 Fan	 Lungs

1

Non-oxygenated blood leaves the heart and is pumped towards the lungs.

2

Oxygenated blood leaves the lungs and is pumped back towards the heart.

3

Oxygenated blood leaves the heart and is pumped towards the brain and body.

4

Non-oxygenated blood leaves the brain and body and returns to the heart.

Circulatory Circuit Recommended STEM Supplies

You can find nearly all the supplies for this activity in your classroom science kits. However if you want to have your own supplies or want your school to purchase and add them to their program below you will find links to all the supplies needed for this activity.

DC Motor Kit

12.99 Sold On Amazon

https://www.amazon.com/gp/product/B07DKS4P42/ref=ppx_yo_dt_b_asin_title_o04_s00?ie=UTF8&psc=1



Light Bulbs & Sockets

Sockets: 9.99 Set of 10 Sold On Amazon

https://www.amazon.com/gp/product/B07MKBZD6X/ref=ppx_yo_dt_b_asin_title_o04_s00?ie=UTF8&psc=1



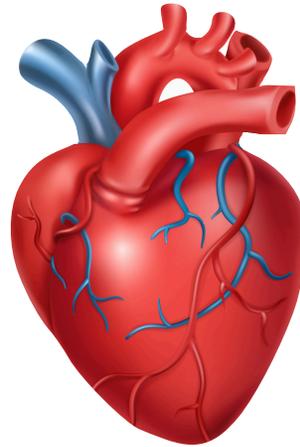
Wires & Clips

8.99 Set of 30 Sold On Amazon

https://www.amazon.com/Eitechip-Alligator-electrica-insulated-Double-Ended/dp/B07RTMSKSR/ref=sr_1_1_sspa?keywords=wires%20with%20alligator%20clips&qid=1566837792&s=industrial&sr=1-1

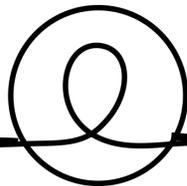
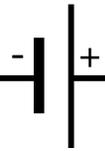
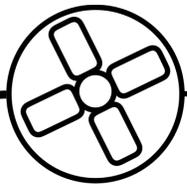
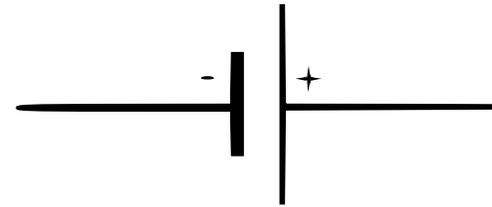


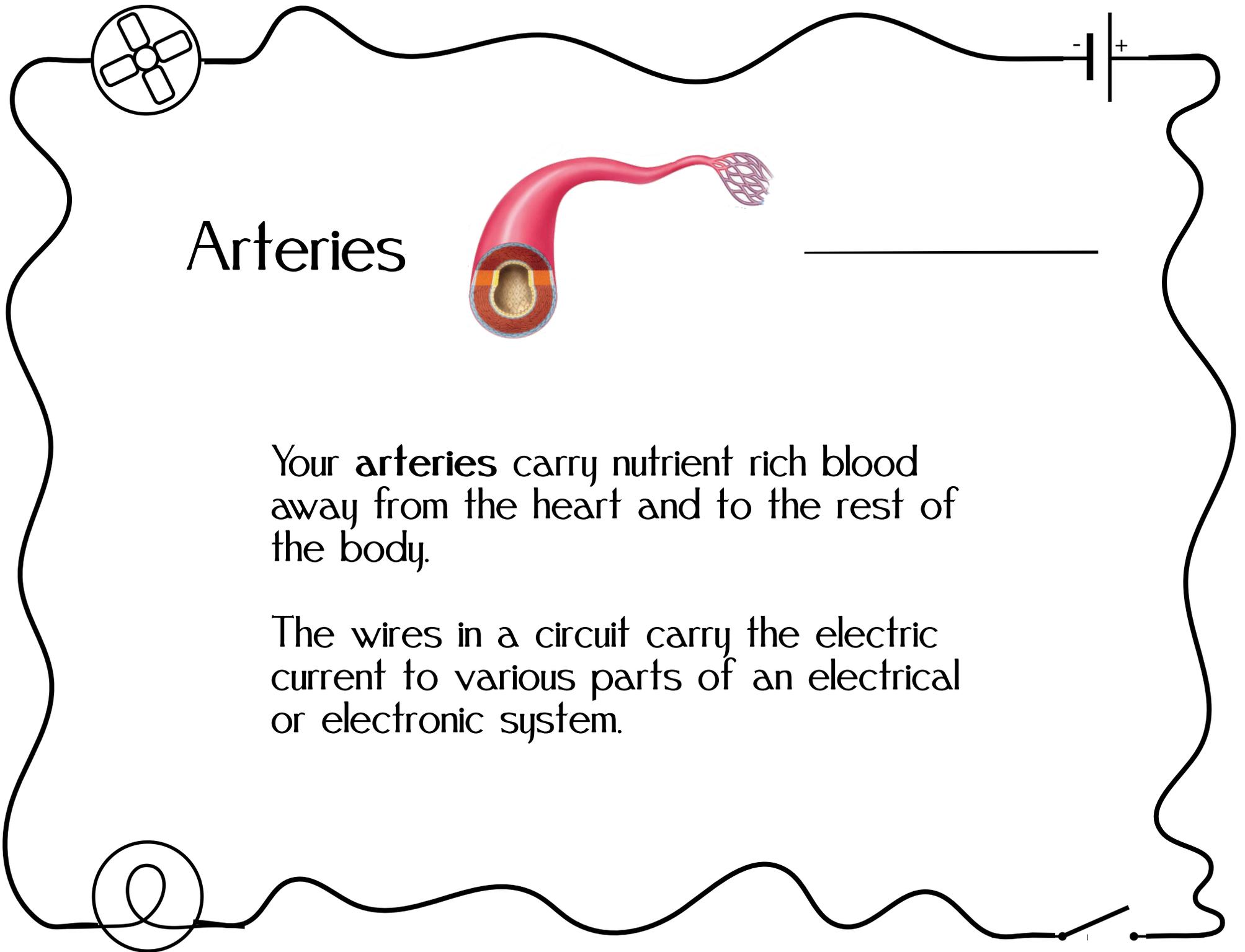
The Heart



Your **heart** is the pump that circulates blood in the body. It provides the force or pressure for blood to circulate. The blood circulating through the body supplies nutrients to various organs of the body.

A battery produces voltage--the force that drives current through the circuit.

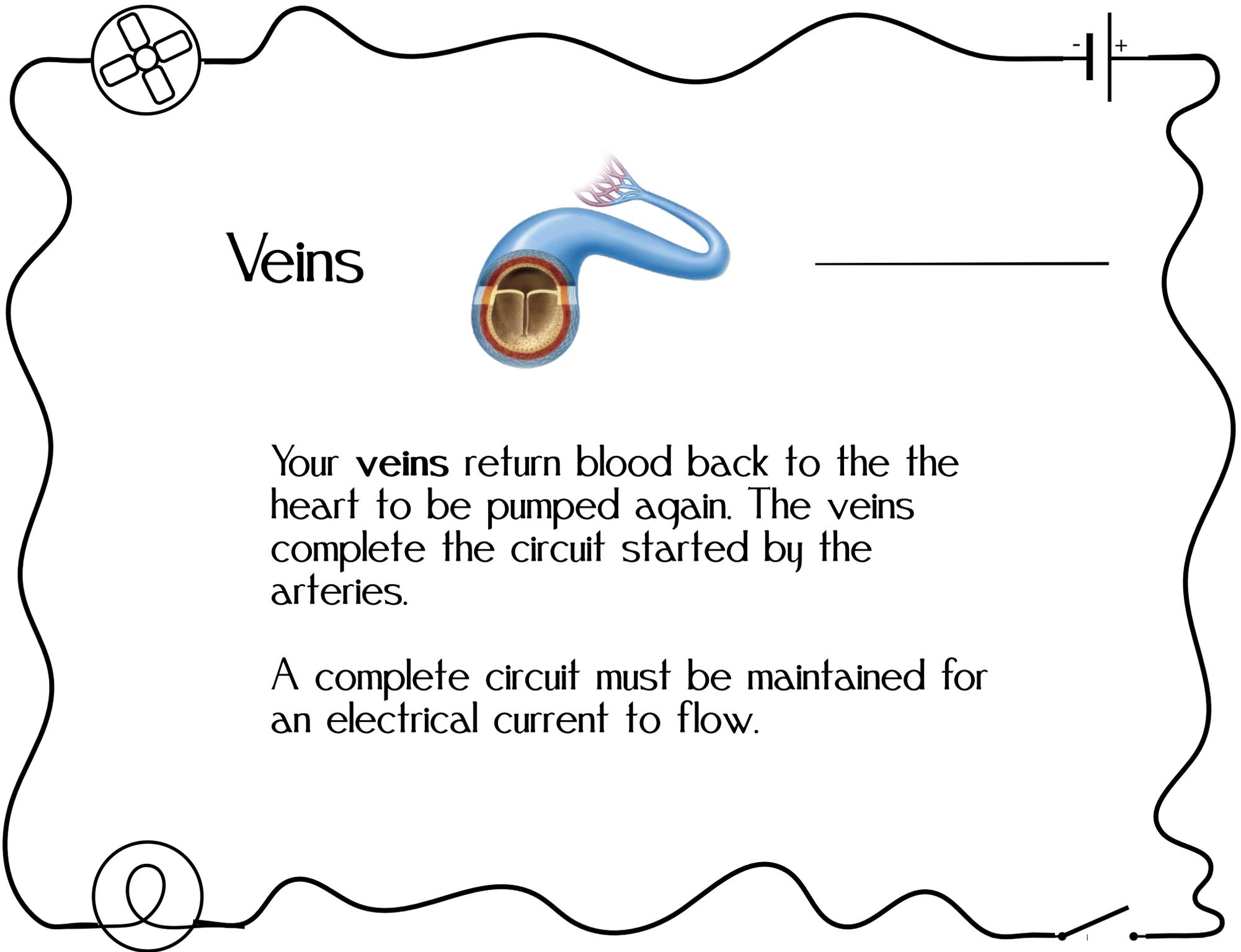




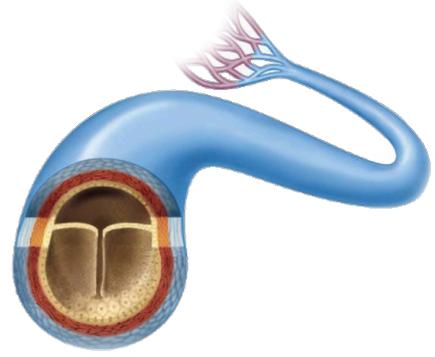
Arteries

Your **arteries** carry nutrient rich blood away from the heart and to the rest of the body.

The wires in a circuit carry the electric current to various parts of an electrical or electronic system.

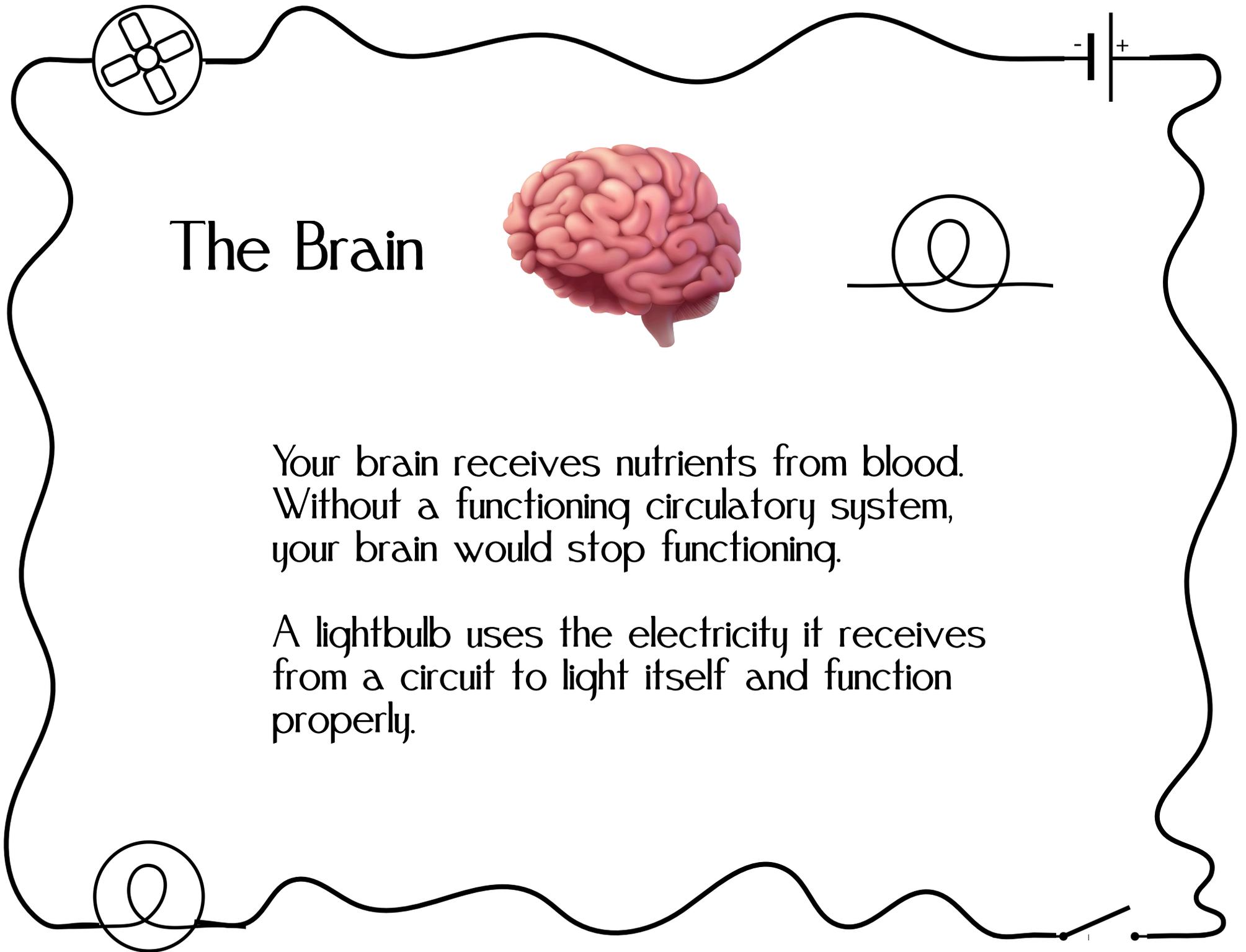


Veins



Your **veins** return blood back to the the heart to be pumped again. The veins complete the circuit started by the arteries.

A complete circuit must be maintained for an electrical current to flow.

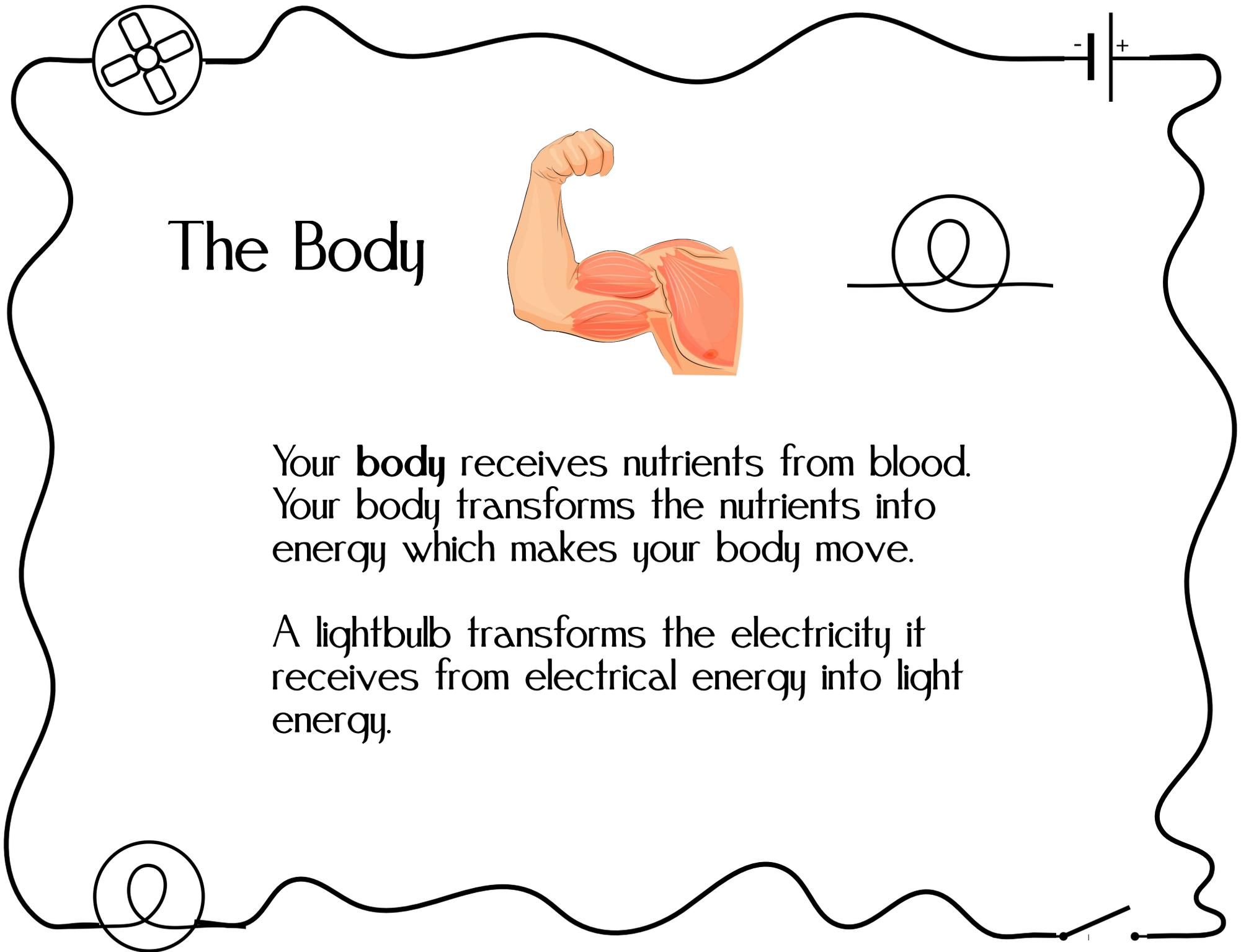


The Brain

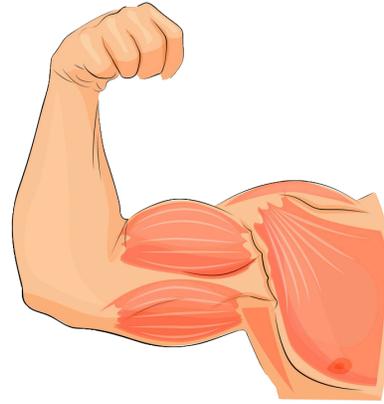


Your brain receives nutrients from blood. Without a functioning circulatory system, your brain would stop functioning.

A lightbulb uses the electricity it receives from a circuit to light itself and function properly.



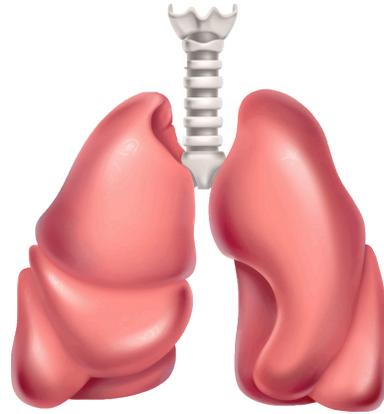
The Body



Your **body** receives nutrients from blood.
Your body transforms the nutrients into energy which makes your body move.

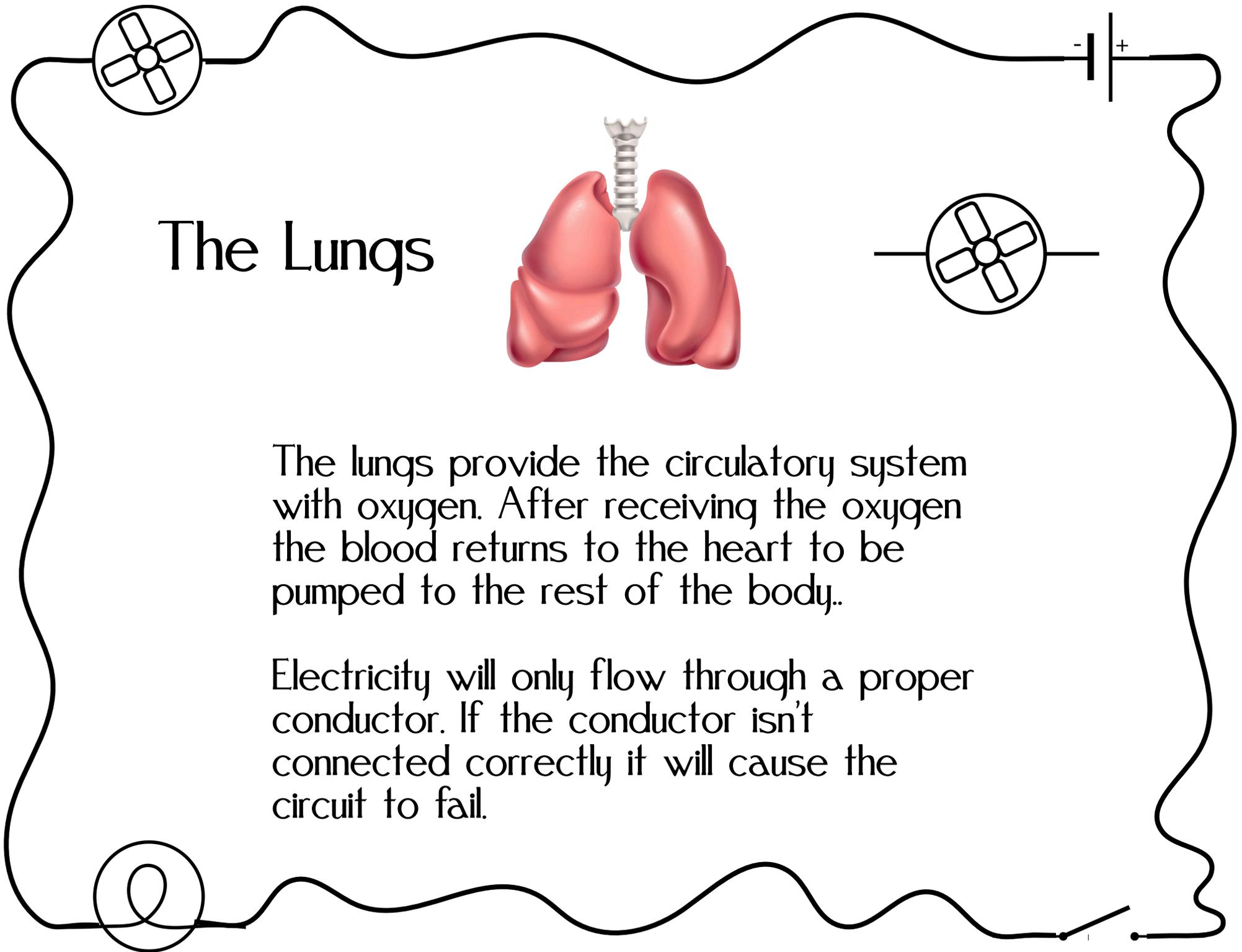
A lightbulb transforms the electricity it receives from electrical energy into light energy.

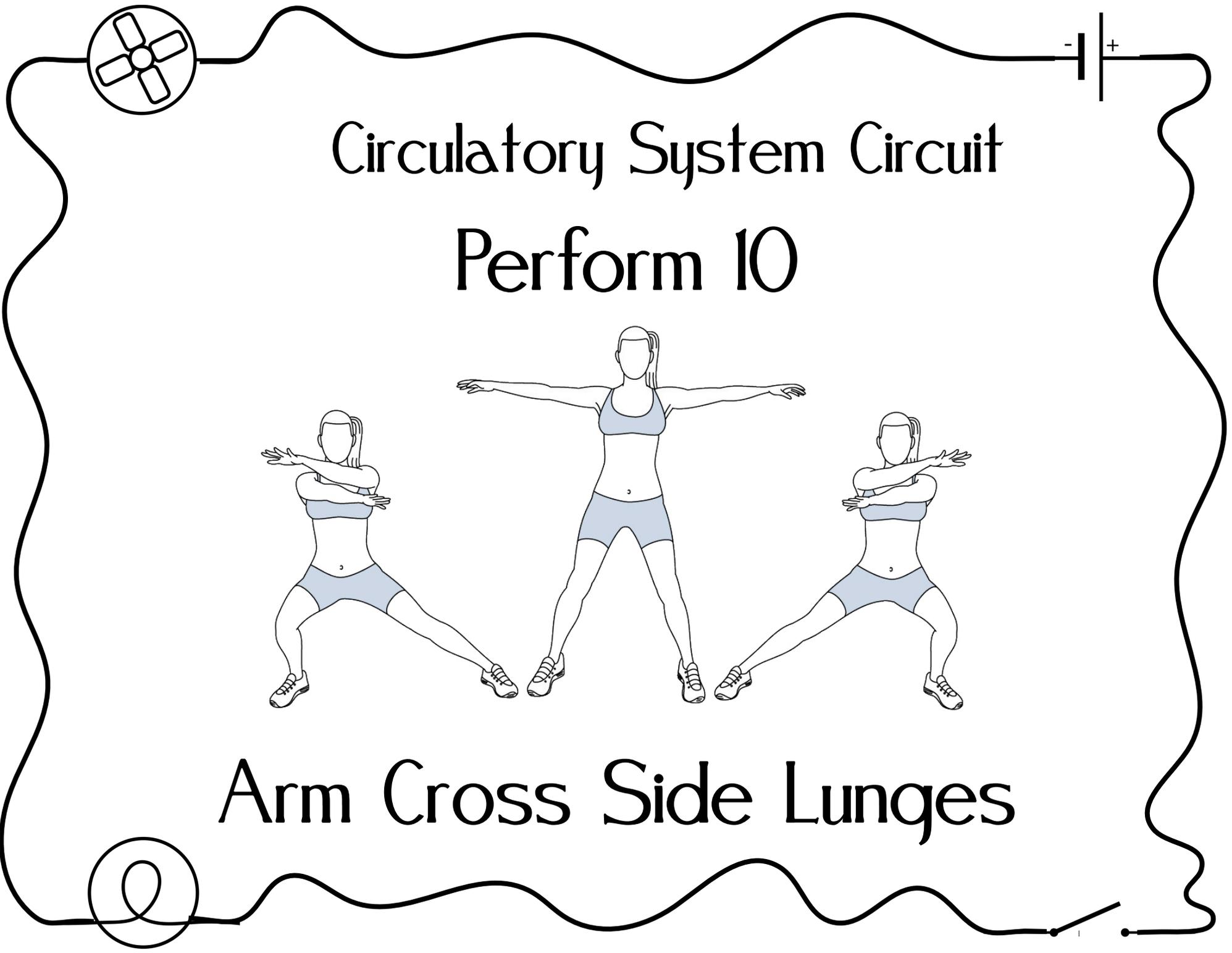
The Lungs



The lungs provide the circulatory system with oxygen. After receiving the oxygen the blood returns to the heart to be pumped to the rest of the body.

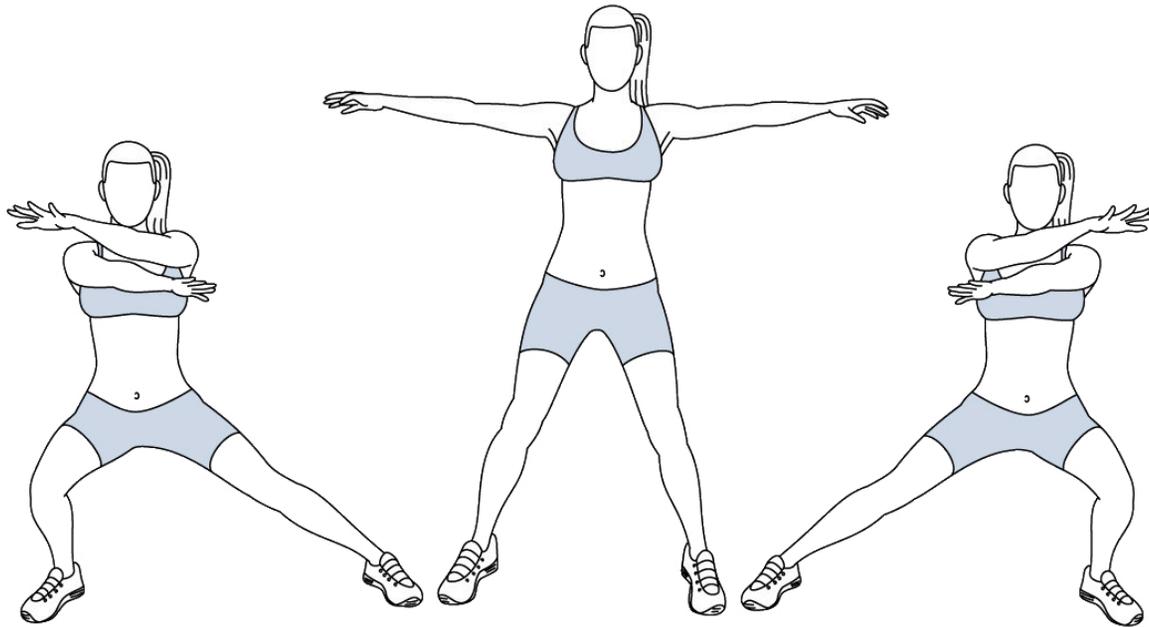
Electricity will only flow through a proper conductor. If the conductor isn't connected correctly it will cause the circuit to fail.



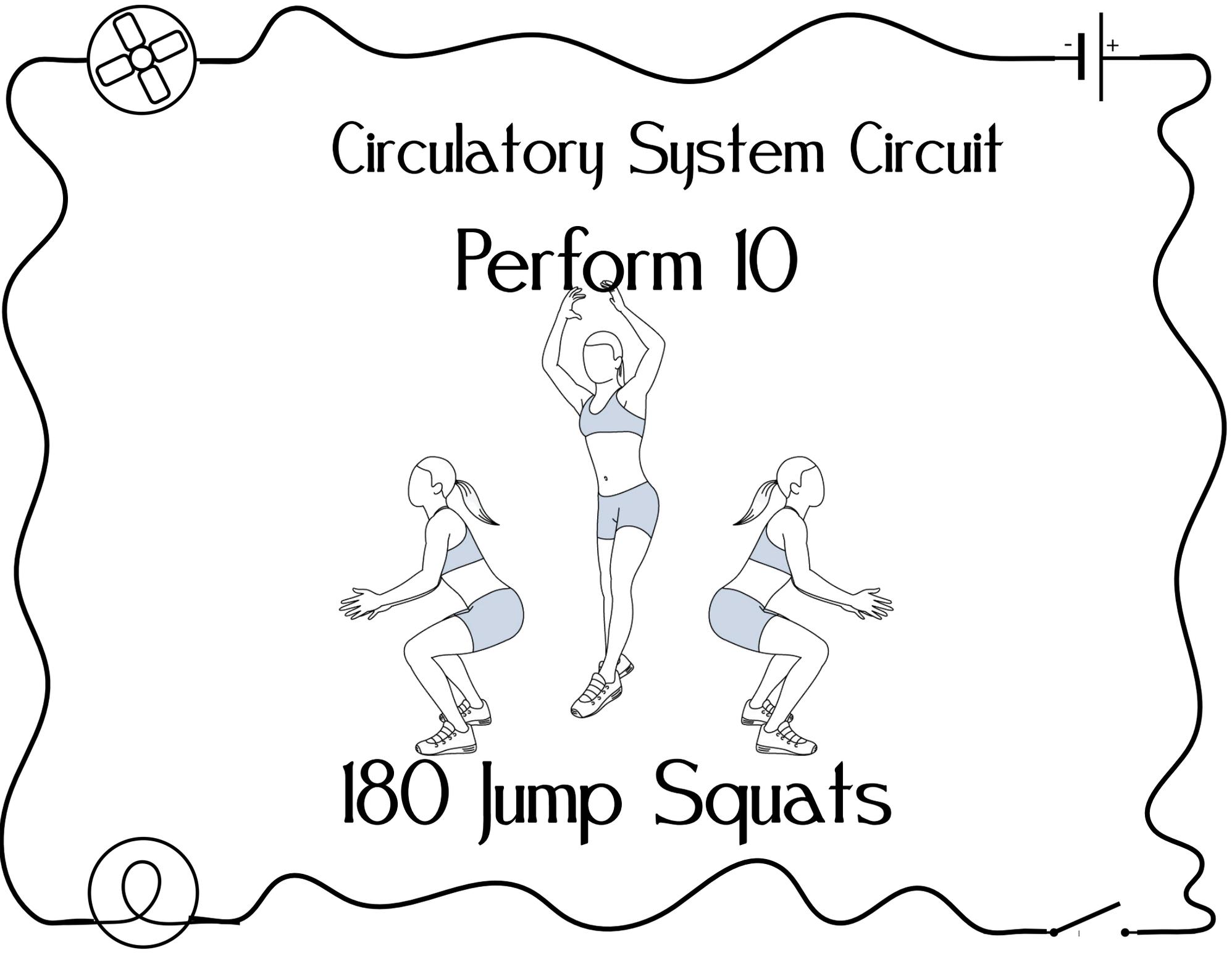


Circulatory System Circuit

Perform 10



Arm Cross Side Lunges

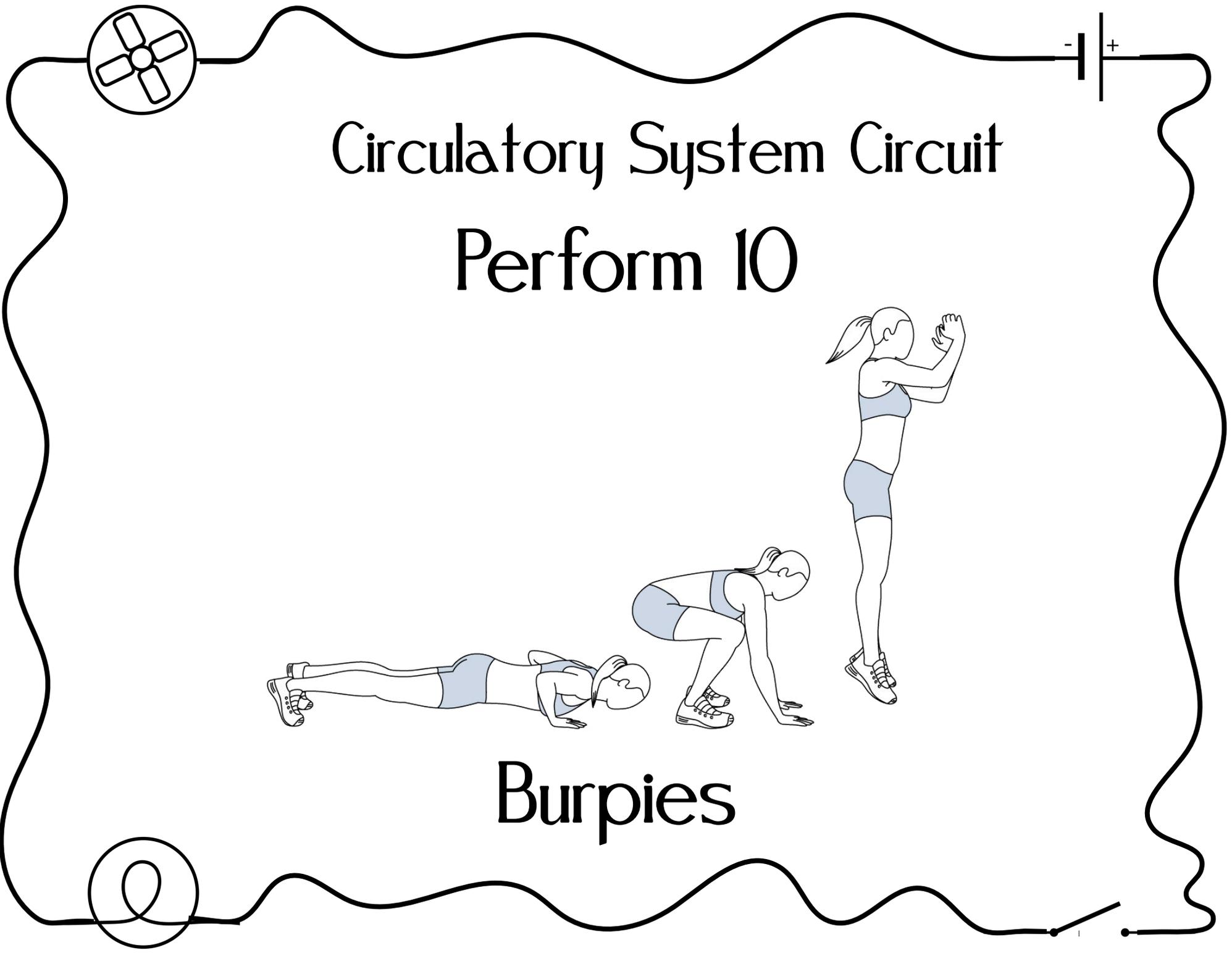


Circulatory System Circuit

Perform 10

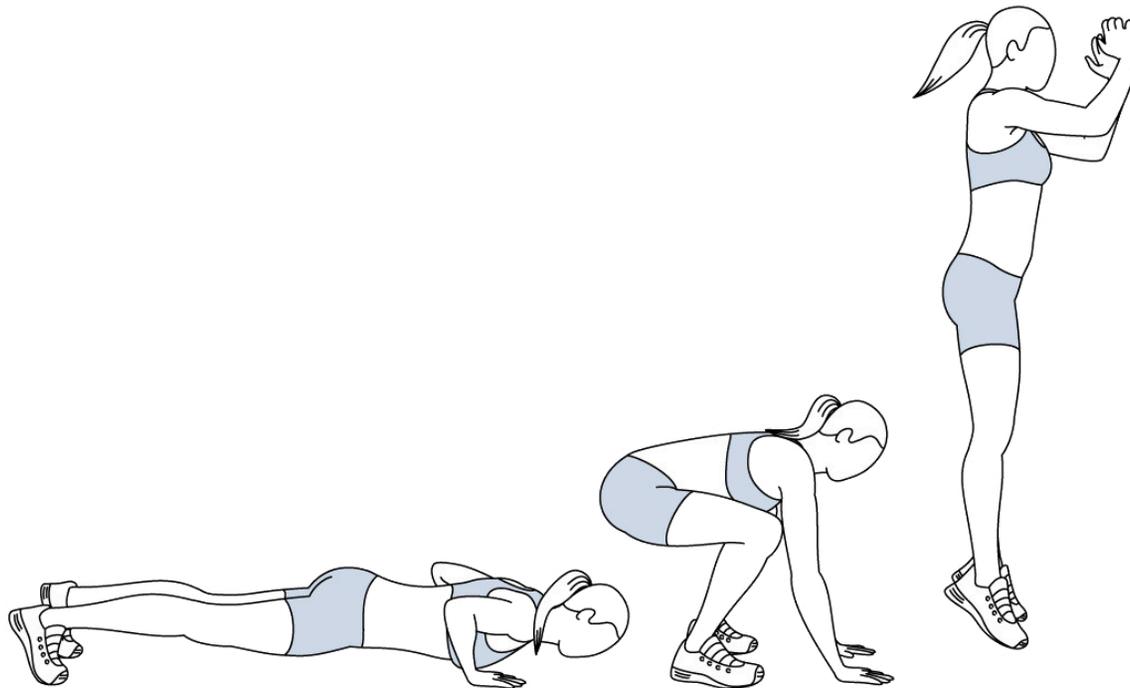


180 Jump Squats

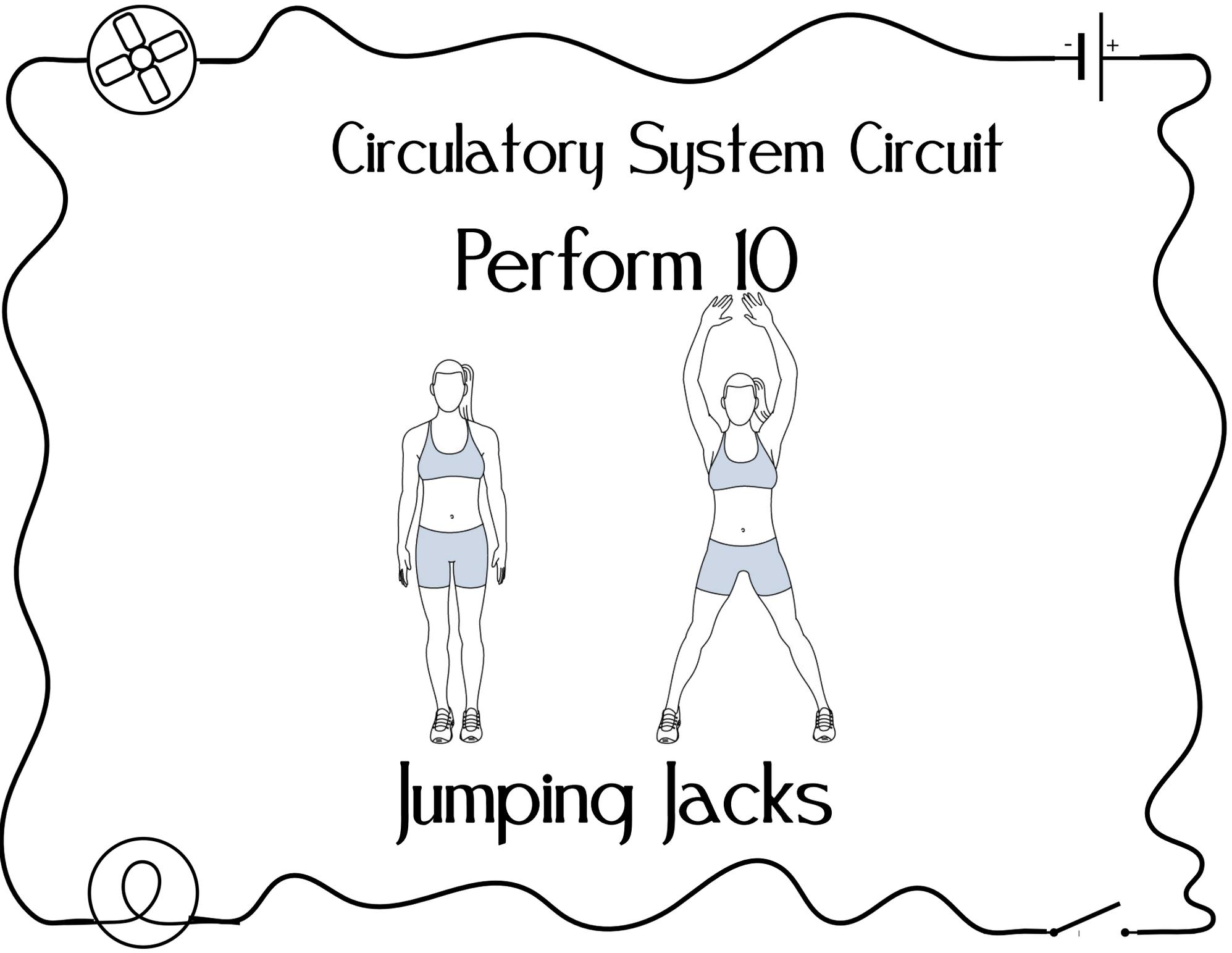
A decorative border shaped like a circuit loop. It contains a battery symbol at the top right with a minus sign on the left and a plus sign on the right. A lightbulb symbol is at the top left. A switch symbol is at the bottom right. A resistor symbol is at the bottom left.

Circulatory System Circuit

Perform 10

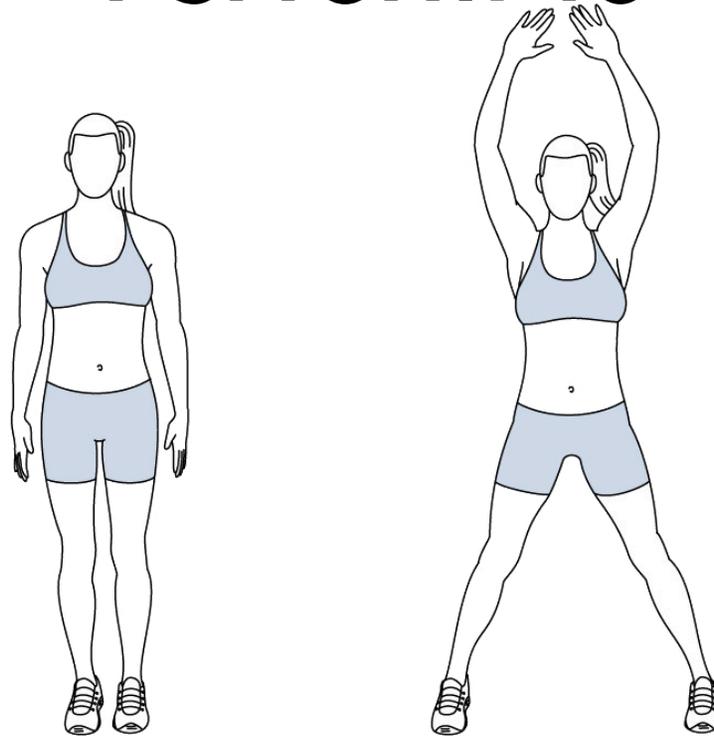


Burpies

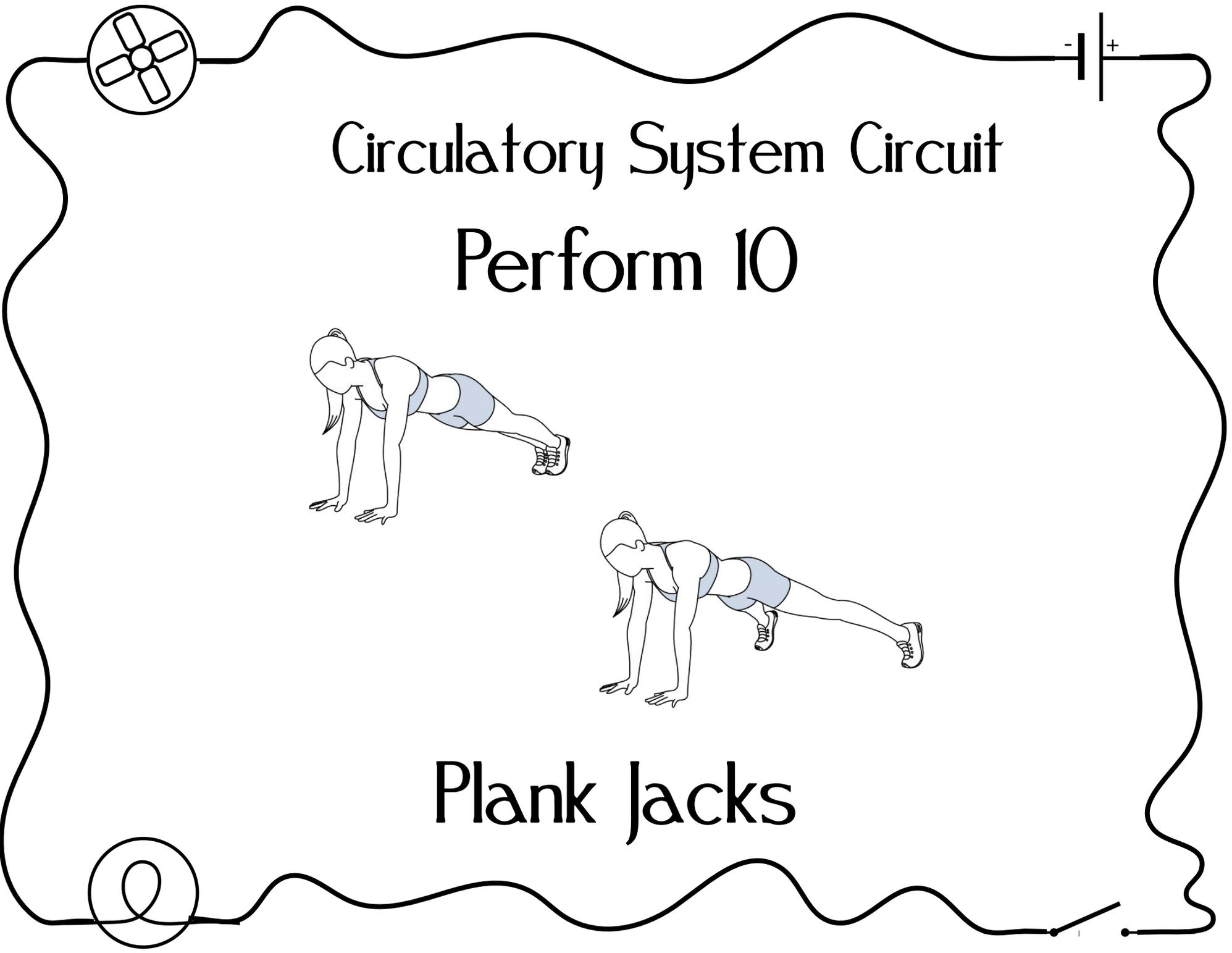


Circulatory System Circuit

Perform 10

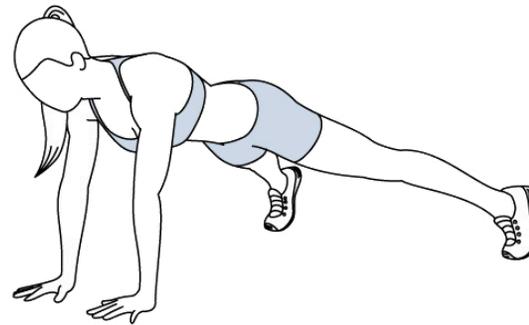
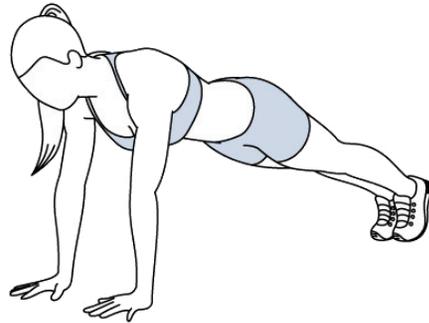


Jumping Jacks

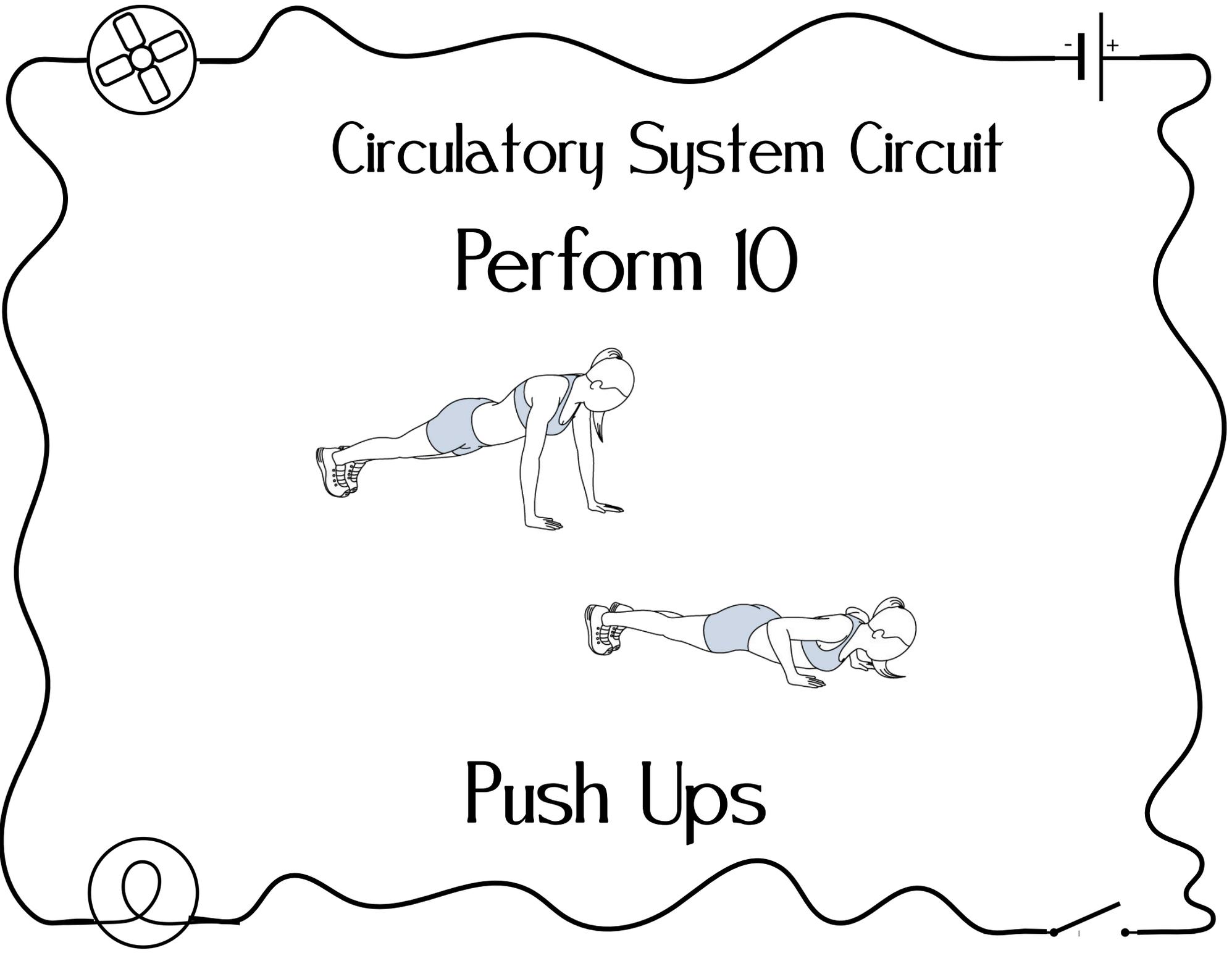


Circulatory System Circuit

Perform 10

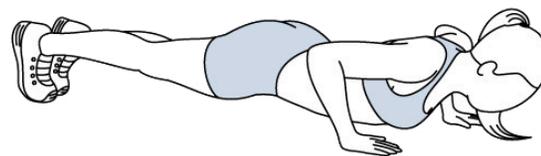
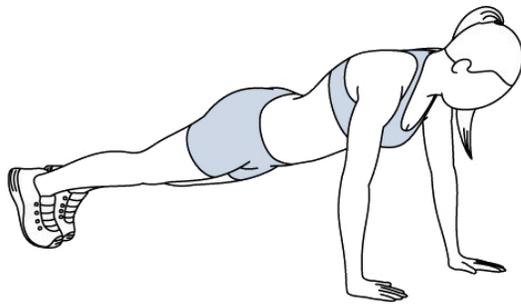


Plank Jacks

A decorative border shaped like a circuit loop. It starts at the top left with a circular fan symbol, goes right to a battery symbol with a minus sign on the left and a plus sign on the right, then down and left to a switch symbol at the bottom right, then left to a circular loop symbol at the bottom left, and finally up and right back to the fan symbol.

Circulatory System Circuit

Perform 10



Push Ups