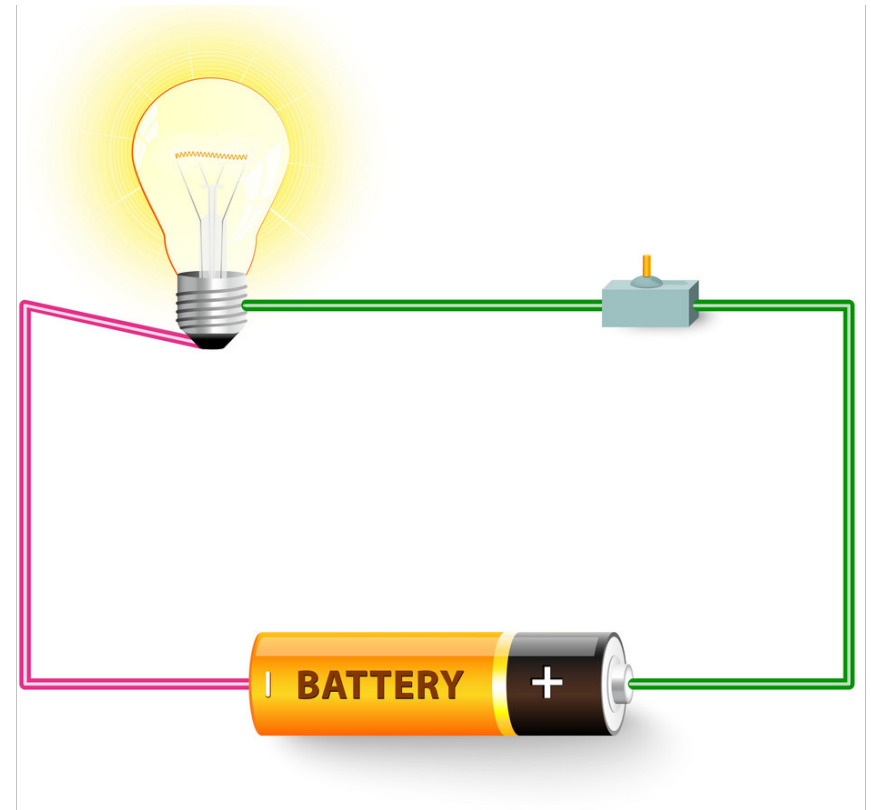


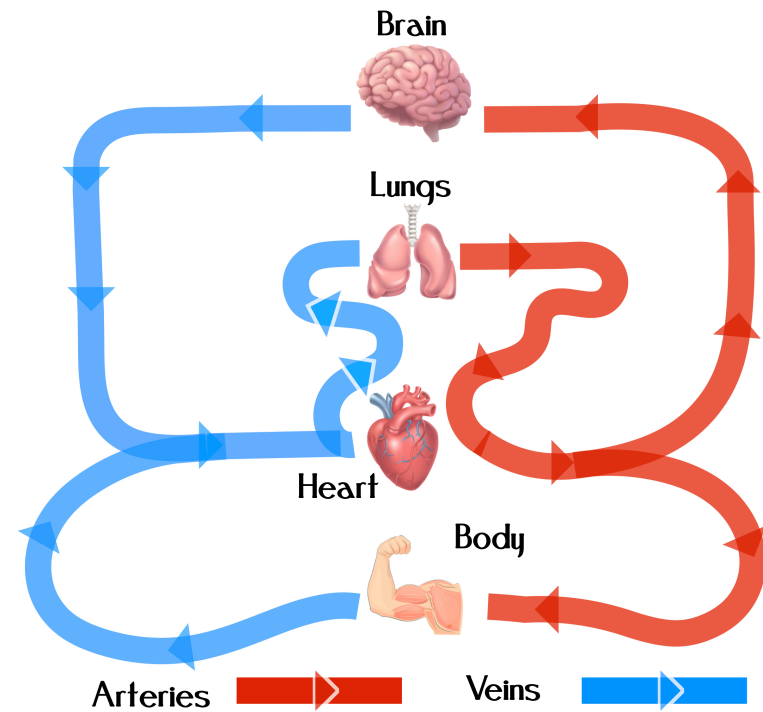
# What is a Circuit?

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.”

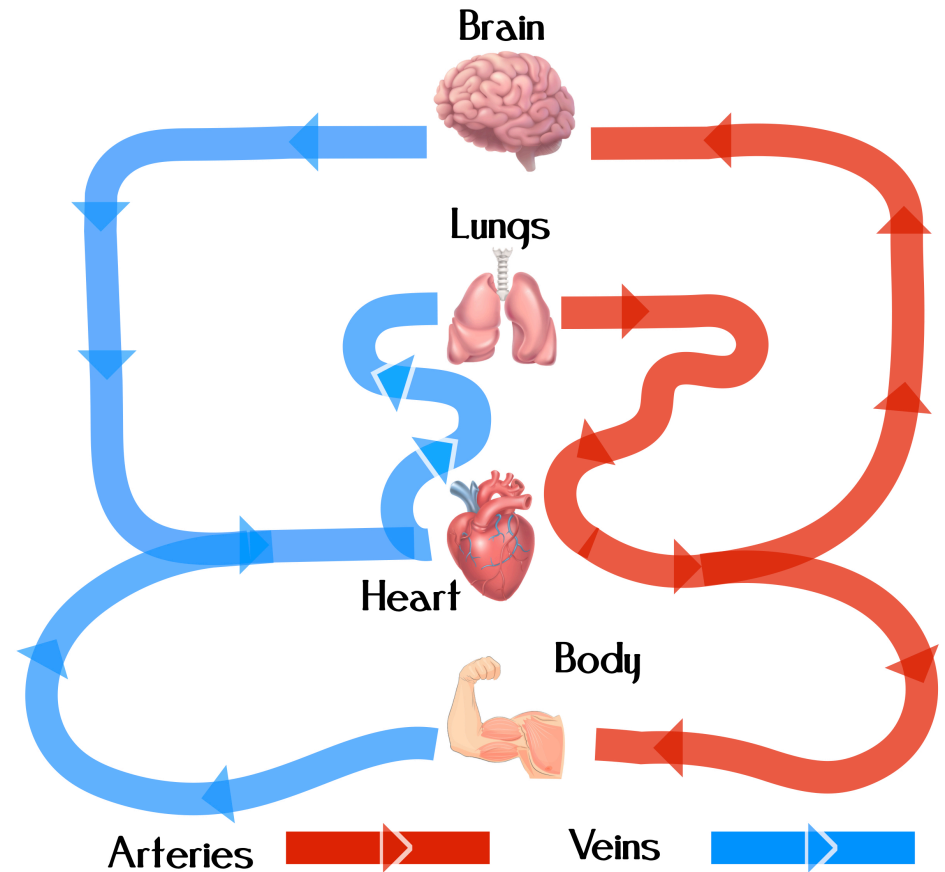
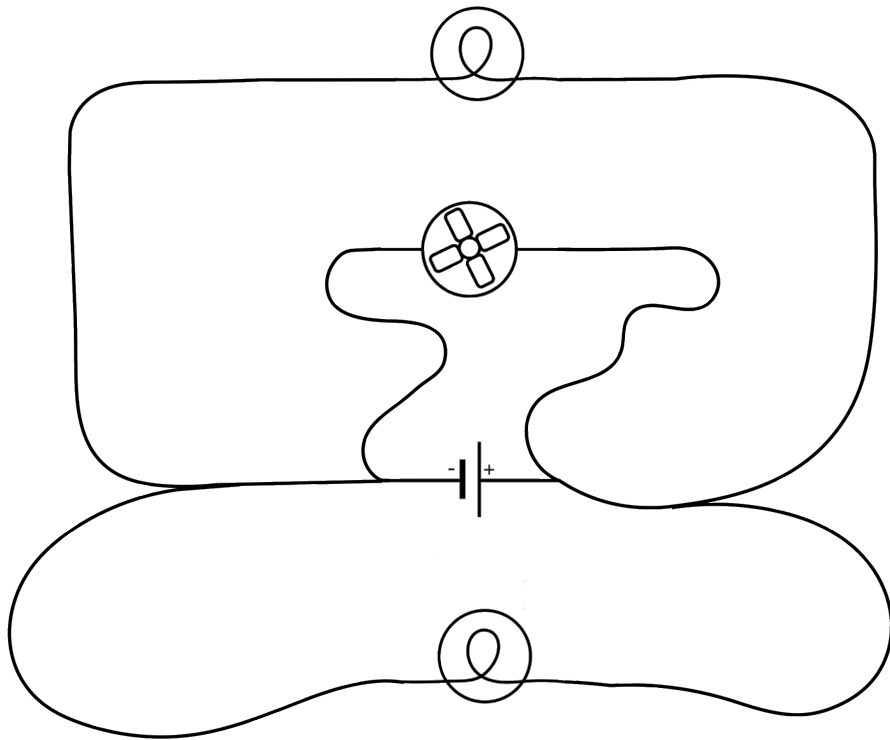


# What is the Circulatory System?

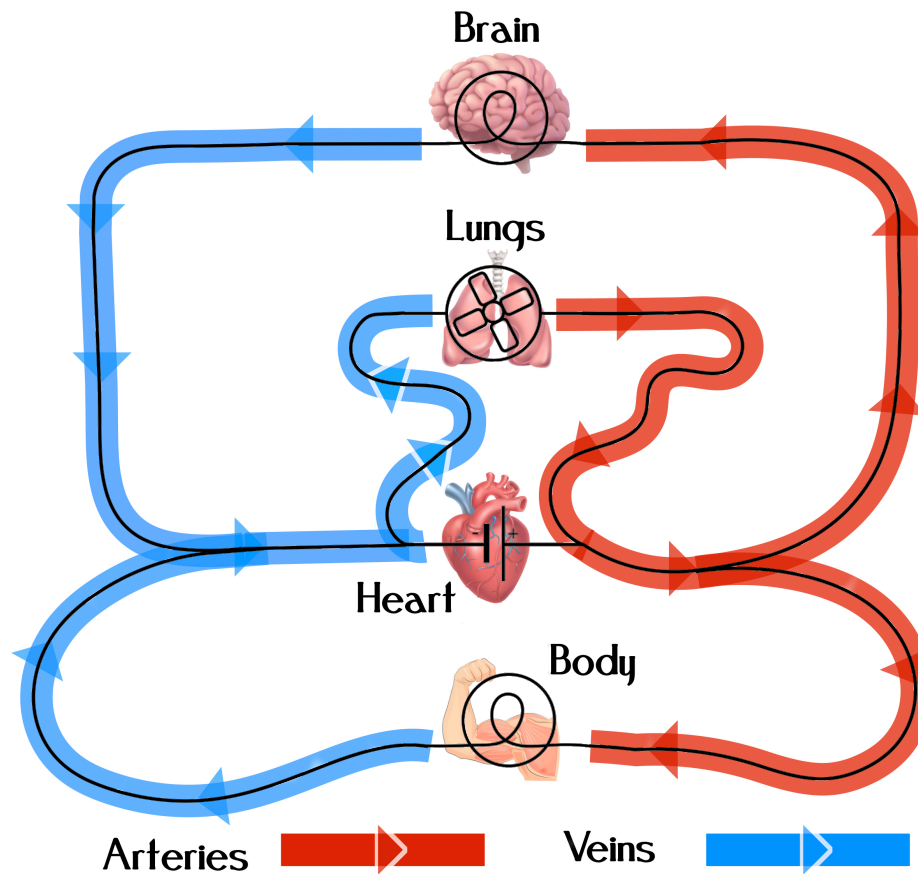
1. (*noun*): the system that circulates blood through the body, consisting of the heart, blood vessels, and the blood.



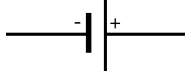


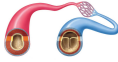
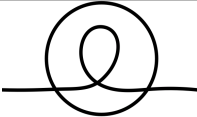

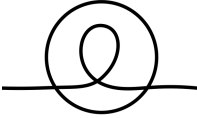



# What is the Connection?



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



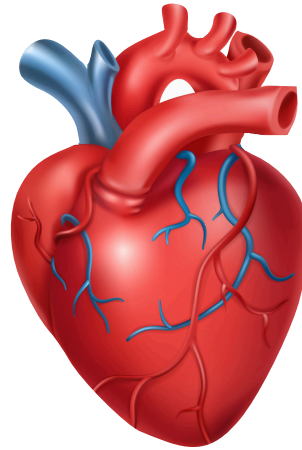
## Wires & Clips

8.99 Set of 30 Sold On Amazon

[https://www.amazon.com/Etechip-Alligator-electrica-insulated-Double-Ended/dp/B07RTMSKSR/ref=sr\\_1\\_1\\_sspa?keywords=wires%2Bwith%2Balligator%2Bclips&qid=1566837792&s=industrial&sr=1-1](https://www.amazon.com/Etechip-Alligator-electrica-insulated-Double-Ended/dp/B07RTMSKSR/ref=sr_1_1_sspa?keywords=wires%2Bwith%2Balligator%2Bclips&qid=1566837792&s=industrial&sr=1-1)

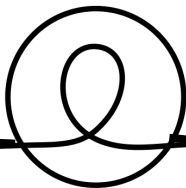
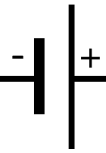
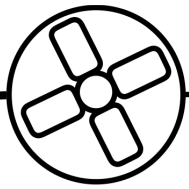
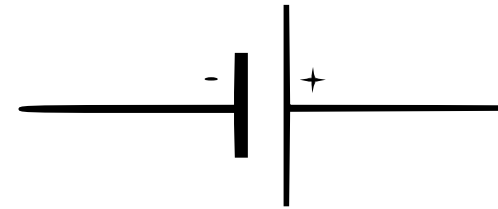


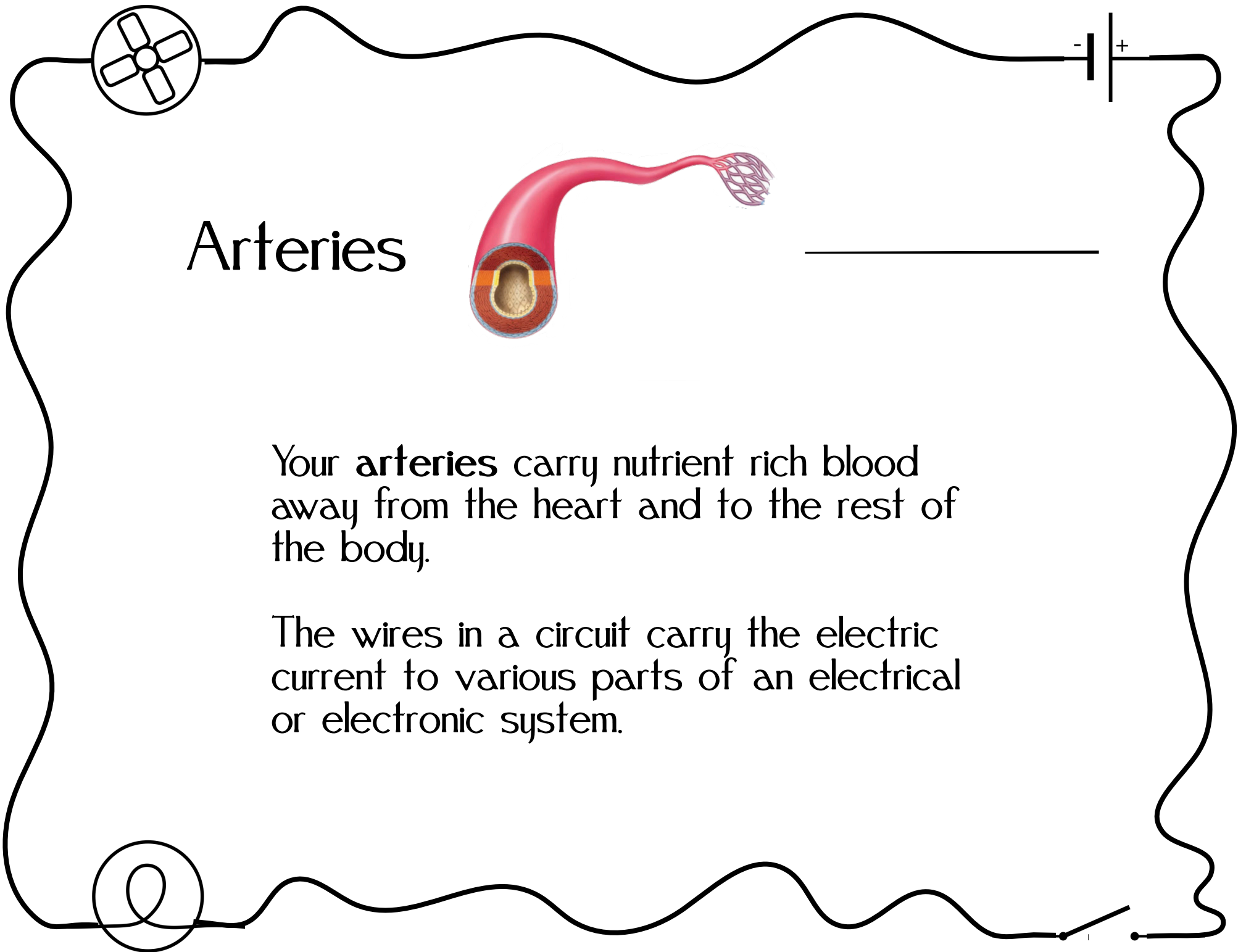
# The Heart



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.



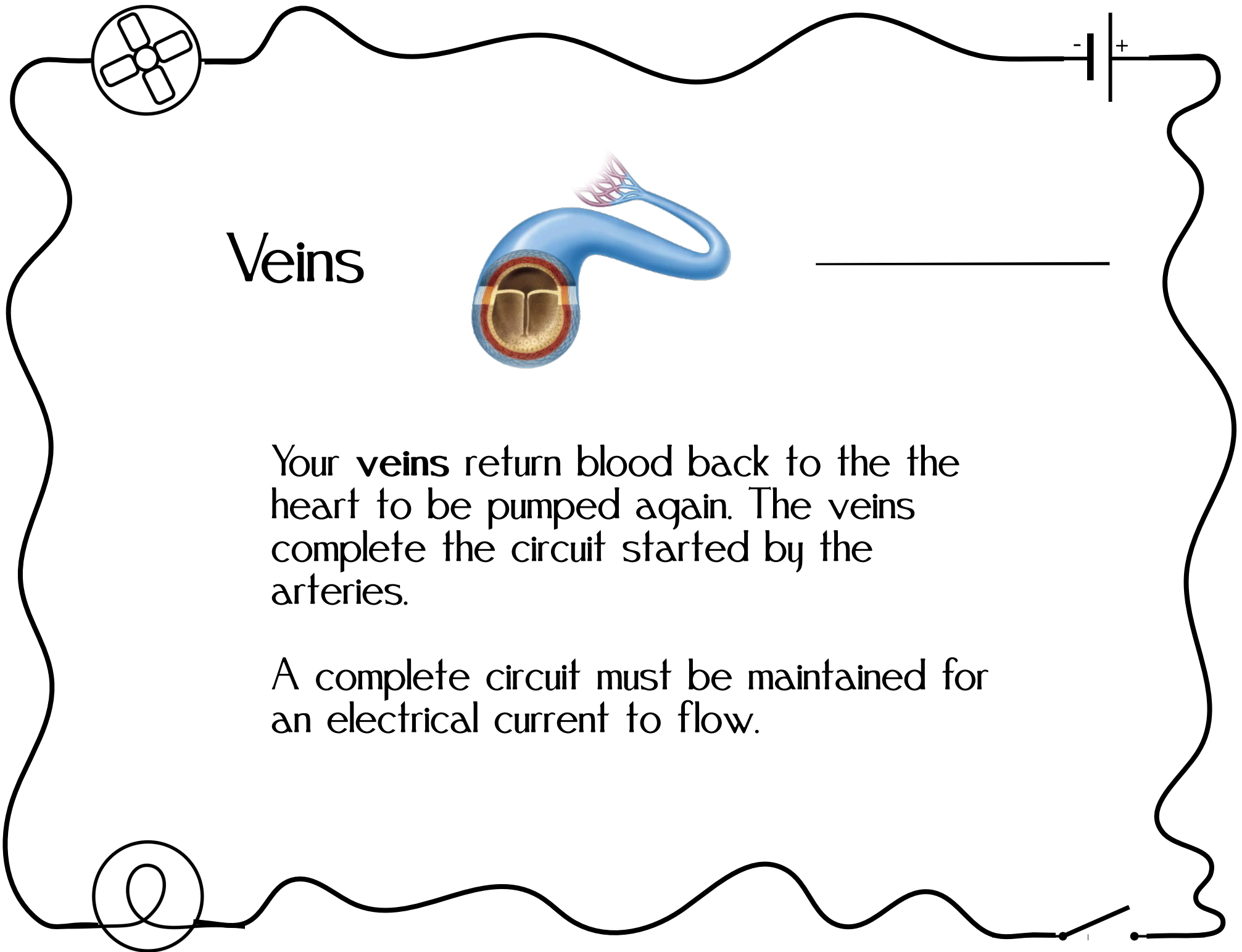


# Arteries

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.

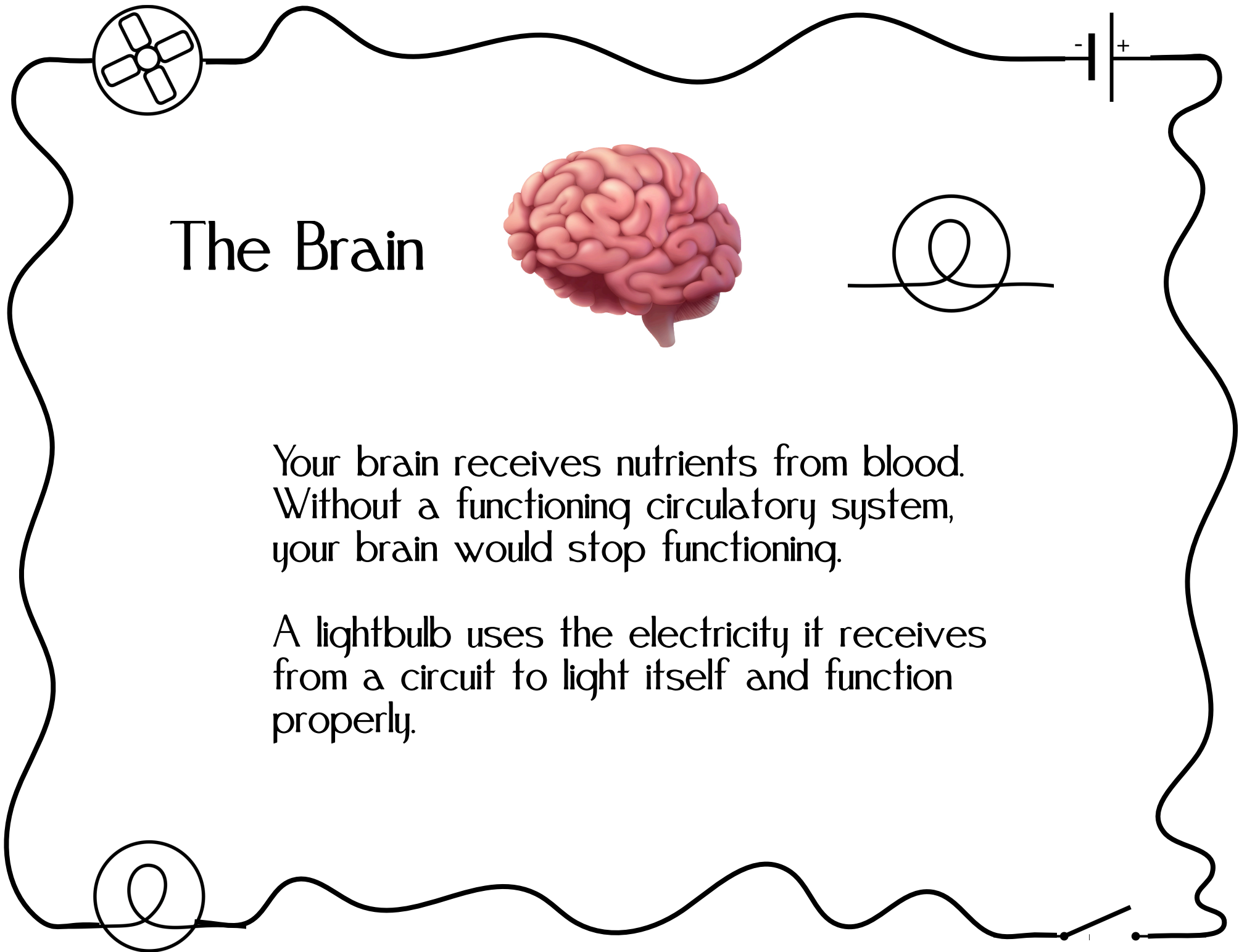




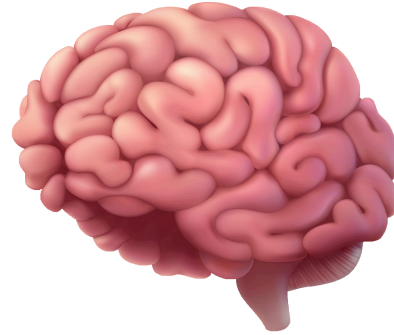
# Veins

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.

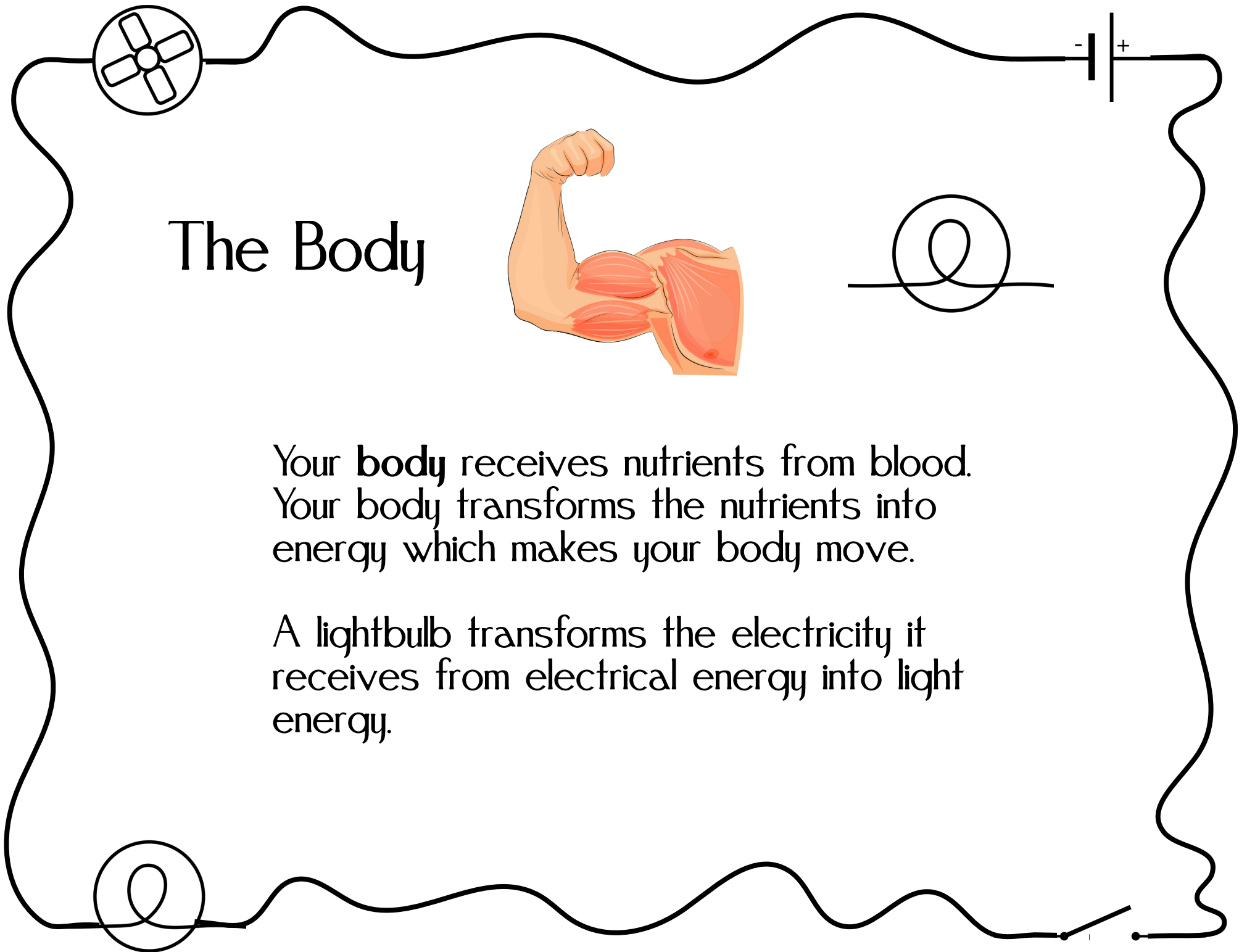


## The Brain

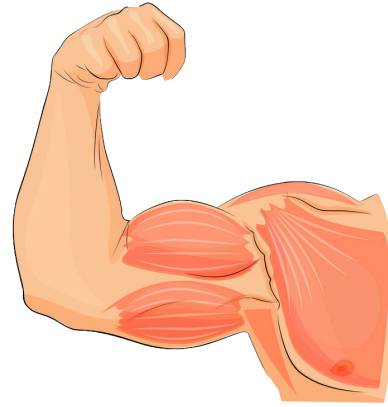


Your brain receives nutrients from blood. Without a functioning circulatory system, your brain would stop functioning.

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.

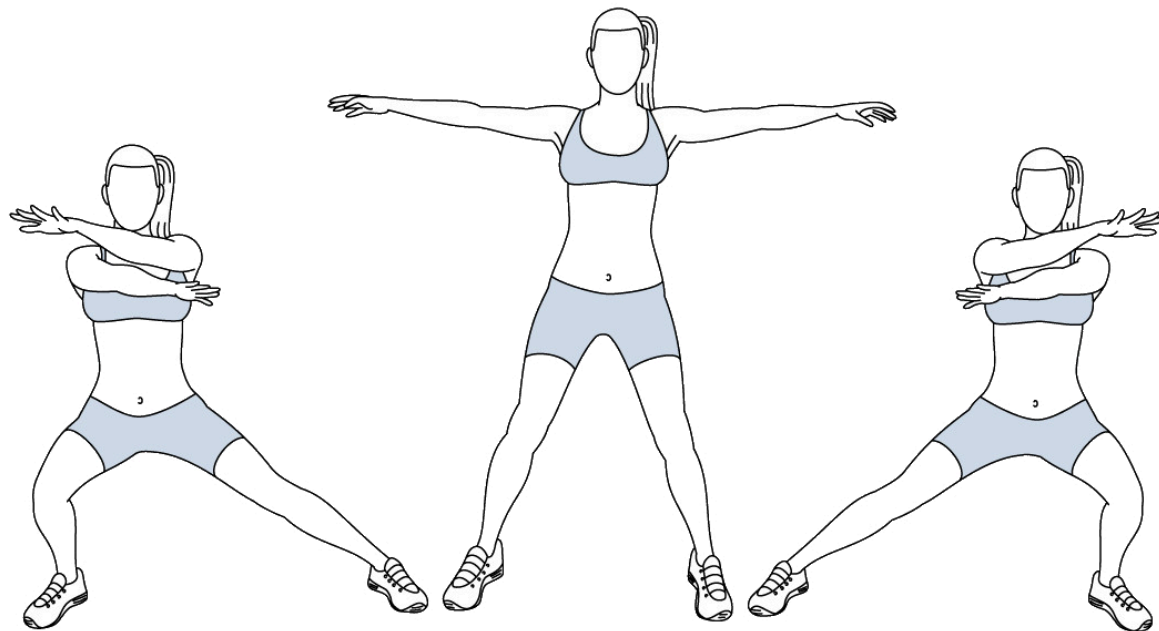
A lightbulb transforms the electricity it receives from electrical energy into light energy.





# Circulatory System Circuit

## Perform 10



# Arm Cross Side Lunges



# Circulatory System Circuit

## Perform 10

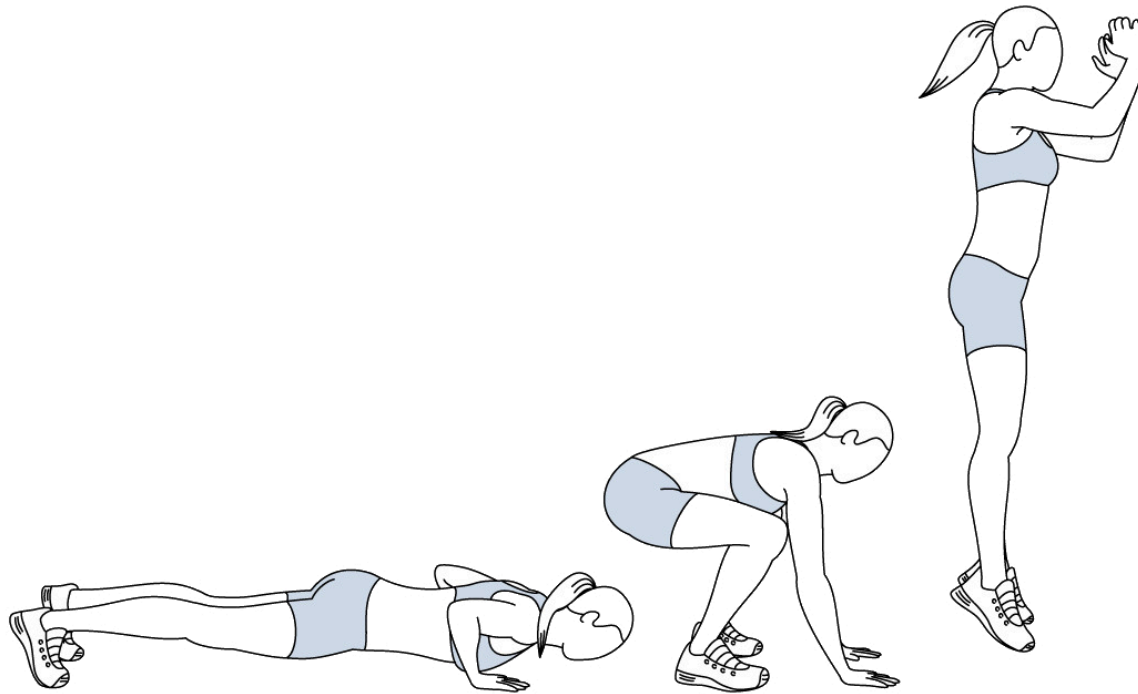


## 180 Jump Squats

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 resistor symbol is at the top left. A switch symbol is at the bottom right. A circular symbol with a vertical line through it is at the bottom left.

# Circulatory System Circuit

## Perform 10

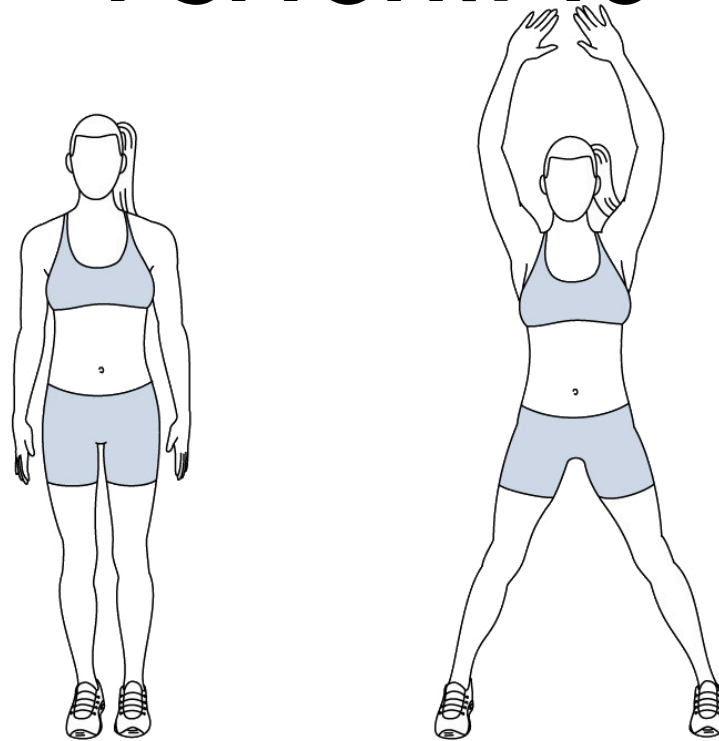


# Burpies



# Circulatory System Circuit

## Perform 10



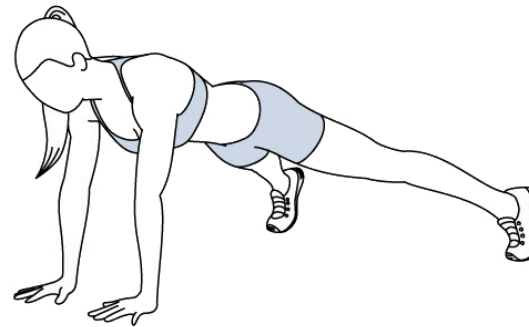
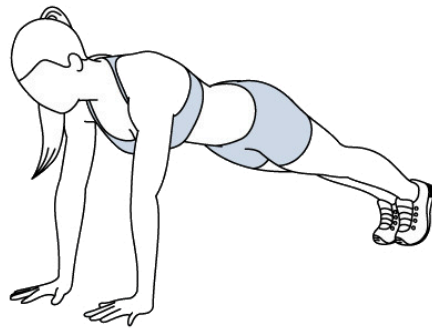
## Jumping Jacks





# Circulatory System Circuit

## Perform 10

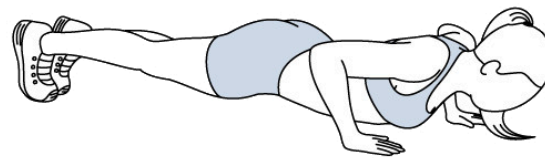
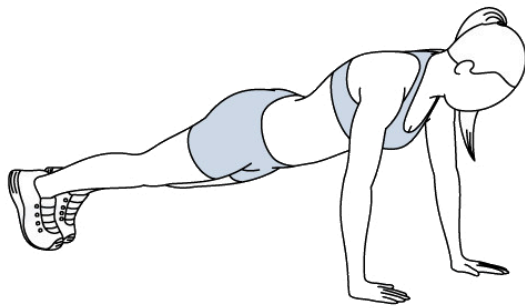


## Plank Jacks

A decorative circuit diagram border surrounds the text. It includes a battery at the top right, a fan at the top left, and a switch at the bottom right.

# Circulatory System Circuit

## Perform 10



## Push Ups