

AMAZING BODY SYSTEMS **CIRCULATORY SYSTEM**

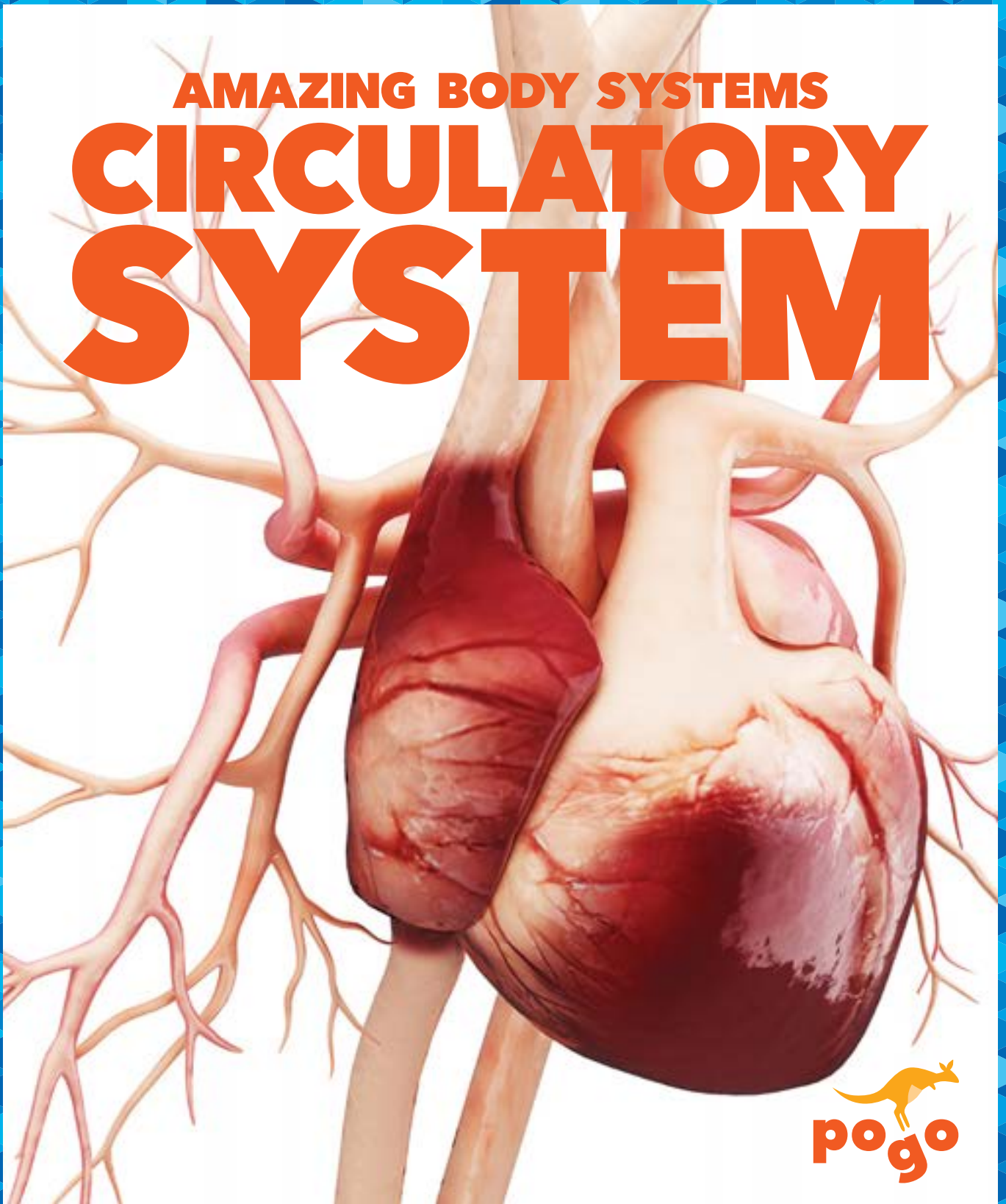


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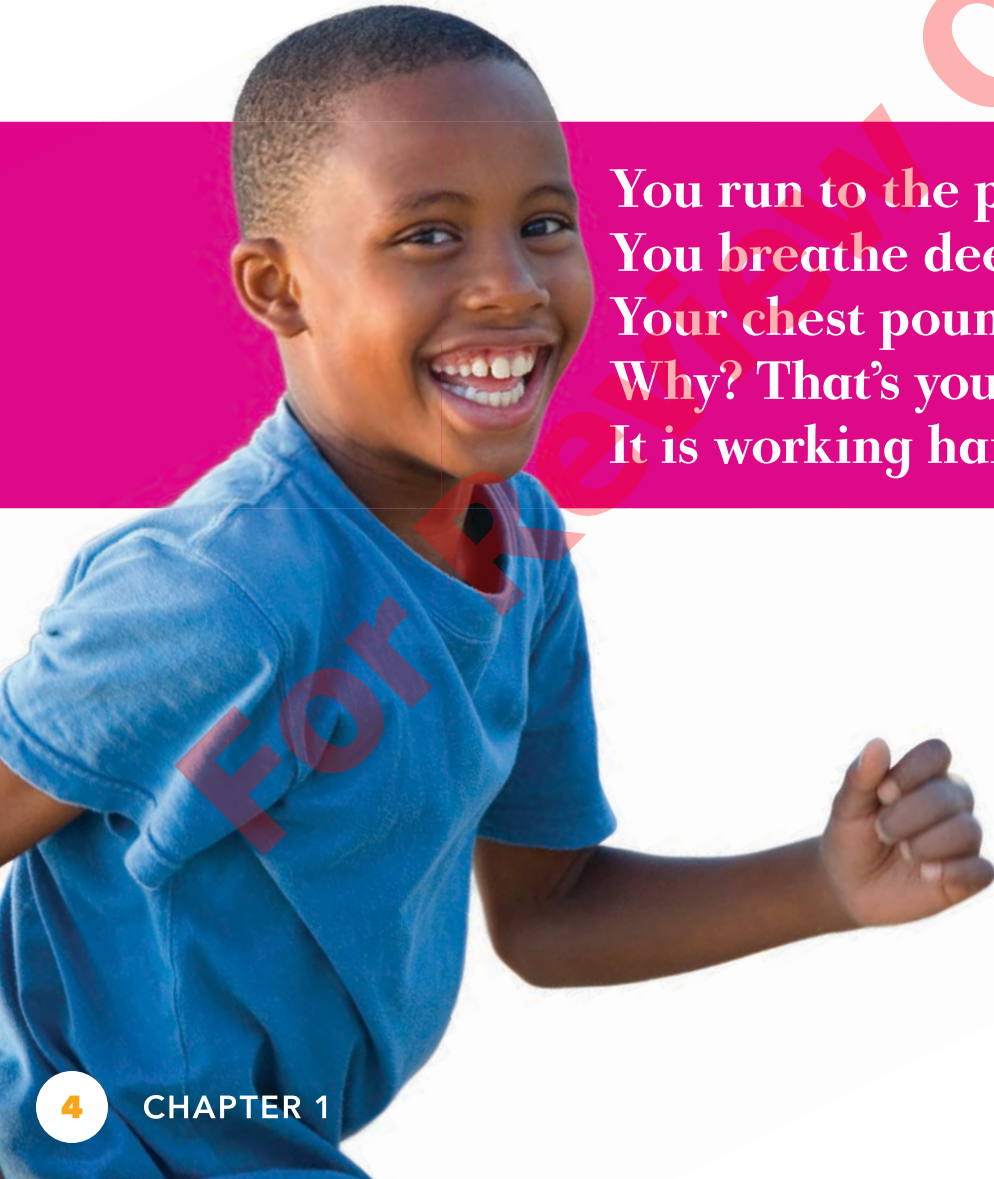
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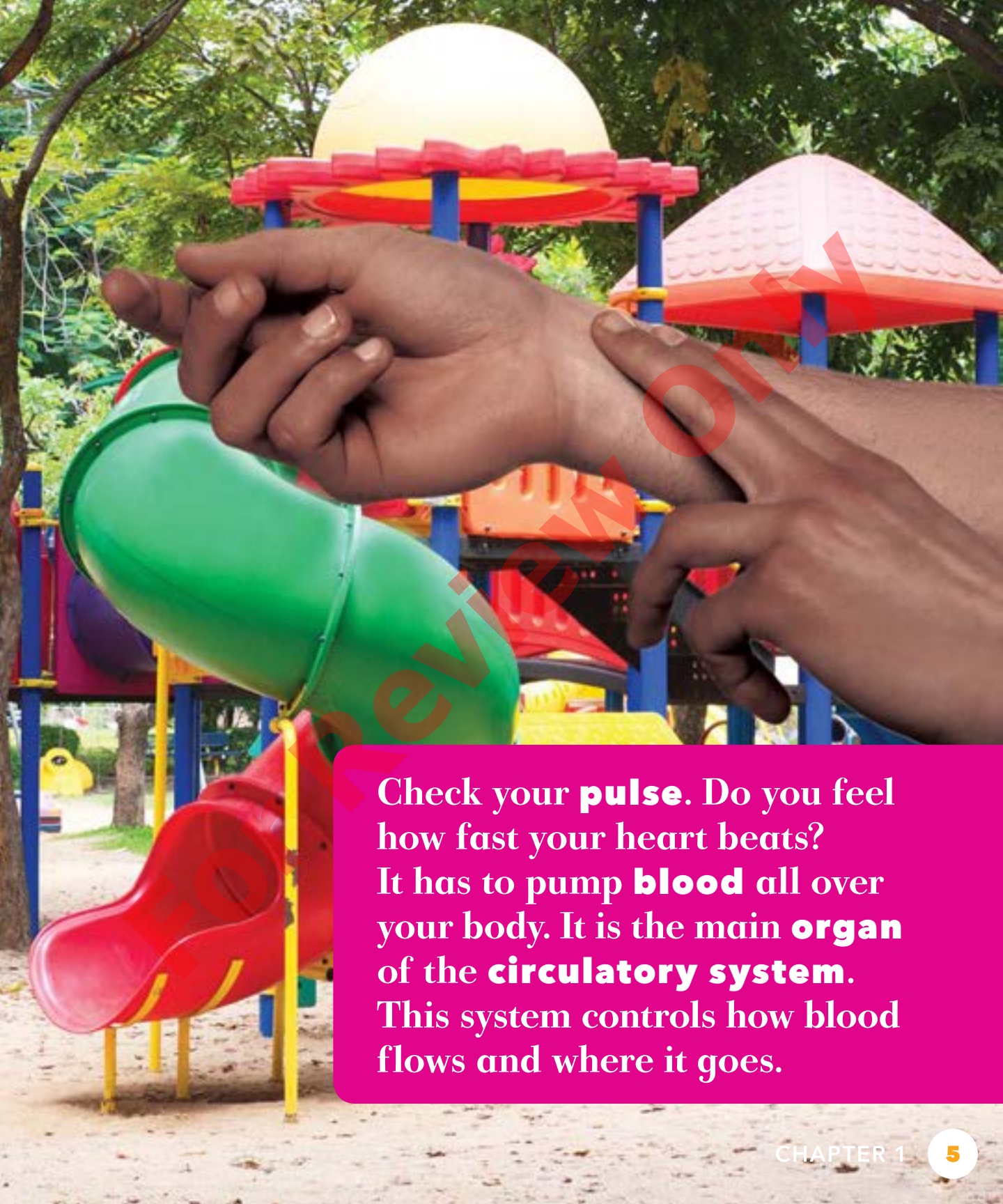


CHAPTER 1

BLOOD HIGHWAY

A young boy with short dark hair, wearing a blue t-shirt, is running and smiling broadly. He is looking towards the camera. The background is white with a pink rectangular box containing text.

You run to the park.
You breathe deeply.
Your chest pounds.
Why? That's your heart.
It is working hard.



Check your **pulse**. Do you feel how fast your heart beats? It has to pump **blood** all over your body. It is the main **organ** of the **circulatory system**. This system controls how blood flows and where it goes.

BLOOD FLOW OF THE HEART



Blood is the most important fluid in your body. It carries **nutrients** to your cells. It delivers **oxygen**. And it removes **carbon dioxide**, a waste product.

Blood moves through your body in a series of tubes. They are called **blood vessels**. The largest are the **arteries**. They take oxygen-rich blood away from the heart.

Veins carry blood that needs oxygen back to the heart.

The smaller tubes are **capillaries**. Their thin walls let gases through.

TAKE A LOOK!

Your circulatory system is made up of blood vessels. It **also** includes the heart and lungs.



HUMAN BLOOD VESSELS



arteries

veins

ACTIVITIES & TOOLS

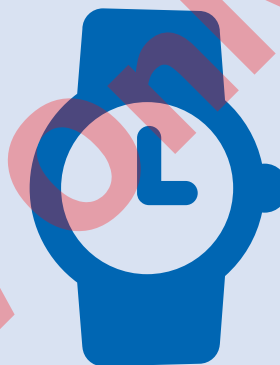
TRY THIS!

LISTEN TO THE BEAT

Pair up with a partner and listen to your hearts beating. See how the beats change with exercise.

What You Need:

- a partner
- a cardboard paper towel tube
- a watch



- 1 Place one end of the cardboard tube in the middle of your partner's chest. Put your ear by the other end. Do you hear your partner's heartbeat?
- 2 Now count how many beats you hear in 60 seconds. Write the number down.
- 3 Ask your partner to do jumping jacks for one minute.
- 4 Listen again to your partner's heartbeat. Count the beats made in 60 seconds. Write the number down.
- 5 Switch and have your partner listen to your heart beating. Did the beats change after the jumping jacks?

GLOSSARY

alveoli: Tiny air sacs in the lungs.

aorta: The biggest artery in the body.

arteries: Tubes that carry blood away from the heart.

blood: The red fluid that circulates in the heart, arteries, capillaries, and veins of a vertebrate animal; it brings nourishment and oxygen to and carries away waste products from all parts of the body.

blood vessels: Tubes that carry blood throughout the body; they are arteries, capillaries, and veins.

capillaries: Small tubes that carry blood in the body.

carbon dioxide: A colorless, odorless gas that is a byproduct of animal respiration.

circulatory system: The body system that controls blood flow.

nutrients: Substances your body needs to stay healthy and to grow.

organ: A part of the body that does a certain job.

oxygen: A gas found in the air, which people need to live.

pulse: A regular, rhythmic throbbing caused by the squeezing and relaxing of the heart.

valves: Moving parts that control the flow of liquid, such as blood.

veins: Tubes that carry blood to the heart.

