



## Teacher's Notes: Circulatory System

**Science Standards: systems of the body and their function**

### Learning Objectives:

- The students will be able to identify where the heart is located
- The students will be able to describe the size of the heart
- The students will be able to state how many chambers the heart has.
- The students will be able to explain the function of the heart.

**NOTE:** This unit includes an interactive workbook. Students use that while the ebook is projected on the SmartBoard. It is located in the worksheets and also posted as a book.

### Activities:

- Listen to the heart with a stethoscope.
- Do a google image search for main idea words.
- Look at the blue veins on our wrists.
- Feel the heart beat.
- Learn about exercise to strengthen the heart.

**General Tips:** The goal is to build background knowledge while leading an engaging discussion on any and all information that can be talked about on a given page. The items that you choose to bring up or focus on can be modified for the students you are working with. For example, if you have a student who can point to something in the picture, answer yes/no questions be sure to incorporate a lot more of that as you go through the book. On the same token, be sure to ask a lot of comprehension questions and critical thinking questions at the level appropriate for students working on those skills. There is something for everyone.

**Page 1:** All people and animals have organs. All people and animals have a heart. Your heart is the size of your fist. Make a fist with your hand. That is the size of your heart. The heart in your body does not look like a heart that we see on Valentine's Day. Make a Valentine shaped heart with your fingers.

**Point:** heart organ, Valentine heart **WH Questions:** What is one organ in the body? What size is your heart? What is your fist the size of? **Yes/No:** Do you have a heart? Do animals have a heart? Is the heart an organ in the body? Is your heart the size of your eye? Is the heart the size of your fist?

**Applying/Analysis:** Why do you think the heart is an important organ? Does the heart look like the heart that people draw on paper? **Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students ask talk to each other about their hearts.

**Page 2:** Put your hand on your chest. Your heart is in your chest. Sometimes when we run and exercise, we can feel our heart beating. **Point:** heart, chest **WH Questions:** Where is your heart? **Yes/No:** Is your heart in your head? Is your heart in your chest? **Applying/Analysis:** Have students run around or dance for a couple of minutes. Then have them try to feel their heart beating. **Peer to Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk to each other about where the heart is. Have them point to their chest to where their heart is.

**Page 3:** The heart is made up of muscle. Flex your arm. Feel the muscle in your arm. Your heart is a muscle just like the muscle in your arm. The heart has an important job. It brings blood to all the parts of your body. The heart pumps blood. It squeezes blood through the body. It stops squeezing it isn't pumping and the blood won't move. The person or animal would die. **Point:** heart **WH Questions:** What does your heart pump? Where does the heart pump your blood to? **Yes/No:** Is the heart a bone? Is the heart a muscle? Does the heart pump water to your body? Does the heart pump blood to your body? **Applying/Analysis:** What do you think would happen if your pump stopping pumping blood to the rest of your body? **Peer to Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk to each other about the heart being a muscle.

**Page 4:** The heart has 4 chambers. The chambers are parts of the heart. The blood goes from chamber to chamber when it is getting oxygen for the rest of the body. Oxygen is very important. Our bodies need oxygen to live. **Point:** heart, chamber 1, 2, 3, 4 **Questions:** How many chambers does the heart have? What is the blood getting when it moves from chamber to chamber? **Yes/No:** Does the heart have 2 chambers? Does the heart have 4 chambers? Does the blood get oxygen when it is moving from chamber to chamber? **Applying/Analysis:** Our bodies need oxygen. Our bodies need blood. What do you think would happen if our bodies didn't get enough oxygen? **Peer to Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk about how many chambers the heart has and what blood is getting when it moves through the 4 chambers.

**Page 5:** We need oxygen to live. Our blood gives our bodies the oxygen it needs. People exercise so that their hearts are strong and can pump oxygen all through their bodies. **Point:** treadmill, woman, muscles, boy muscles. **WH Questions:** What does blood bring to the body? What does our body need to live? How do our bodies get oxygen? **Yes/No:** Does the body need oxygen? Can we live without oxygen? Does blood give our bodies the oxygen it needs? **Applying/Analysis:** Where can people workout? What is one type of exercise that would help the heart? **Peer to Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk to each other about what the body needs to live.

**Page 6:** Blood that has oxygen in it is red. The red blood leaves the heart through the arteries. The arteries tubes in your body. They are like a road that a car can travel on. The blood travels to the rest of the body through the arteries. **Point:** heart, arteries **Yes/No:** Is blood with oxygen in it blue? Is blood

with oxygen in it red? Do arteries take the blood to the rest of the body? **WH Questions:** What color is blood with oxygen in it? What takes the blood to the rest of the body? Where do arteries take the blood to? **Peer to Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk to one another about the color of blood and what arteries do.

**Page 7:** The blood's job is to give the body oxygen. Blood turns blue after they give the body all of their oxygen. The blood needs to go back to the heart to get more oxygen. Blood travels through the veins to get back to the heart. Look at the veins on the leg, back of hand, wrist **WH Questions:** What color does blood turn when all of its oxygen is gone? Where does blood go to get more oxygen? How does blood get back to the heart? Where do the veins take blood back to? **Yes/No:** Does blood stay red when all of its oxygen is gone? Does blood turn blue when all of the oxygen is gone? Does blood go back to the heart to get more oxygen? Does blood travel back to the heart through the arteries? Does blood travel back to the heart through the veins? **Peer to Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk about blue blood going back to the heart via veins.

**Page 8:** The number one job of our blood is to bring oxygen to the rest of the body. Our bodies need oxygen to live. Have a student stand and show where the heart is, and how the red blood with oxygen goes out of the heart by arteries. When the O<sub>2</sub> is gone, the blood turns blue and goes back to the heart in veins. **WH Questions:** Is red blood in arteries or veins? Is blue blood in arteries or veins? Do veins go to the heart or away from the heart? Do arteries go away from the heart or into the heart? **Yes/No:** Does blue blood have O<sub>2</sub>? Does red blood have O<sub>2</sub>? After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk to each other about what blood.

**Page 9:** Doctors have stethoscopes around their necks. When we go to see the doctor, they use their stethoscope to hear your heart. They are checking to see if your heart sounds healthy. **Point:** doctor, stethoscope **WH Questions:** What do doctors listen to when they use a stethoscope? What helps a doctor hear your heart? **Yes/No:** Do doctors use a thermometer to heart your heart? Do doctors use a stethoscope to hear your heart. **Applying/Analysis:** Have you ever had a doctor or nurse put a stethoscope on your chest? They are listening to your heart when they do that. Have students use a stethoscope to listen to their heart. **Peer to Peer Interaction:** After you read the page, have students read/show/point/eye gaze at either the main idea word or picture to a partner or the entire group. Have students talk about what a stethoscope does.