

Human Organ Systems **Grades 5 and 6**

Build a Stethoscope – Pre Activity

Assessment	model
Cross-curricular	Health

Big Ideas

50 minutes

Organ systems are components of a larger system (the body) and, as such, work together and affect one another.

Organ structures are linked to their functions.

Systems in the human body work together to meet our basic needs.

Specific Expectations

1. Identify major systems in the human body and describe their roles and interrelationships (Grade 5 – 3.1);
2. Describe the basic structure and function of major organs in the respiratory, circulatory, and digestive systems (Grade 5 – 3.2);
3. Identify interrelationships between body systems (Grade 5 – 3.3);
4. Use scientific inquiry/experimentation skills to investigate changes in body systems as a result of physical activity (Grade 5 – 2.2);
5. Use appropriate science and technology vocabulary, including circulation, respiration, digestion, organs, and nutrients, in oral and written communication (Grade 5 – 2.4)

Description

Using materials provided, students will make their own listening device to listen to the sounds their body makes. They can use it to listen to their heart, intestines, stomach, etc.

Materials

2 funnels	Plastic hose
Tape	2 straws
Saran wrap	

Safety Notes

Introduction

1. Discuss with the students what an organ is and what a system is. Have them record the different systems in the body that they know, and some organs that belong to that system.
2. Introduce the function and main components of the respiratory and circulatory system.
3. Explain how systems work together and don't operate as separate entities within the body.

Action

1. Have the students wrap Saran wrap over the mouth of one funnel. Use a piece of tape to secure it around the spout of the funnel.
2. Attach the hose to the spout of both funnels. Use tape to secure if the hose is loose.
3. The students will have built their own stethoscope. Have them test out the sounds of different parts of their body by placing the plastic funnel on different organs such as the heart, stomach, intestines, lungs, etc.
4. The funnel will amplify the sounds created by the body. The sounds produced by the digestive system are caused by the production of gases, while the pumping of blood through the body causes the sounds in the heart and pulse in veins and lung sounds that are heard are caused by inhalation and exhalation of air.

Consolidation/Extension

1. Have students talk about the results they each observed using their sound amplifier.
2. Re-cap what are the functions of organs and systems. Ensure students understand how systems work together to perform functions.

In grade 5, the study of the human body consists of 3 major organ systems – respiratory, circulatory and digestive. During the Science North school program, students will be introduced to the circulatory and respiratory system, and the related organs, to determine how they work together to help complete different body systems.

The circulatory system is comprised of the heart as the main organ and all blood vessels and arteries. Its job is to pump blood carrying oxygen and nutrients to the body, and carry waste products to the proper location. The circulatory system works with both the respiratory and digestive systems. When we eat food, nutrients are absorbed into our blood stream and carried through blood vessels and arteries to different areas of the body. Lungs bring the air that the circulatory system needs into the body so it can be absorbed into the bloodstream. All of these systems work together to complete these tasks.