STUDENT WORKSHEETS

Circulation System

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For grade 8 semester 1

Group Name

LIVEWORKSHEETS

LEARNING OUTCOMES

Students are able to conduct analysis to find the relationship between organ systems and their functions as well as abnormalities and disorders that arise in certain organ systems (digestive system, circulatory system, respiratory system, and reproductive system).

LEARNING OBJECTIVES

1. Students are able to describe the circulatory system
2. Students are able to identify organs in the circulatory system
3. Students are able to identify the type of blood circulation
4. Students are able to analyze diseases of the circulatory system

STUDY INSTRUCTIONS

1. Students pray before working on the circulatory system LKPD
2. Students read the circulatory system LKPD work instructions
3. Students write their identity on the first page of the circulatory system LKPD
4. Students read material on circulatory system LKPD Learners write down their experiences related to the circulatory system
5. Students fill in the questions available on the circulatory system LKPD
6. Students ask the teacher if it is difficult to fill in the LKPD

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DESCRIPTION OF LEARNING ACTIVITIES

Learning activities 1 (2CH = 80 minutes)

INTRODUCTION

1. The teacher opens the learning activity by saying greetings and praying
2. The teacher conducts attendance by calling the students' names one by one
3. The teacher asks students to observe events related to the circulatory system at the introduction of the LKPD

CORE ACTIVITIES

1. The teacher asks students to form a group of 4
2. Students work on LKPD in groups for 60 minutes and followed by delivering answers for 20 minutes.
3. Student representatives from each group read the results of the answers from the LKPD that had been done

CONCLUDING

1. The teacher asks students to sum up the material learned today.
2. The teacher delivered an evaluation related to today's learning
3. Teachers appreciate their students
4. The teacher closes the teaching and learning activities with prayers and greetings

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CIRCULATION SYSTEM

INTRODUCTION



As a student, you will certainly carry out flag ceremony activities every week, namely every Monday and sometimes on certain days. Many unexpected events during the flag ceremony activities were taking place. One of them is an event like the picture above, namely fainting. Fainting in ceremony participants can occur by many factors, one of which is anemia. Anemia is one of the disorders of the circulatory system which is a condition when the body does not have enough red blood cells and has an impact on the condition of the body and eventually faints. The circulatory system has many components and types. Let's work on this student worksheet to find out more about the circulatory system.

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CIRCULATION SYSTEM



The circulatory system is a collection of several organs that have the same function that form an organ system whose function is to circulate blood and other important substances throughout the body. The circulatory system is an example of the level of organ systems in which organs have organs that coordinate with each other to carry out circulatory functions. ent worksheet to find out more about the circulatory system.

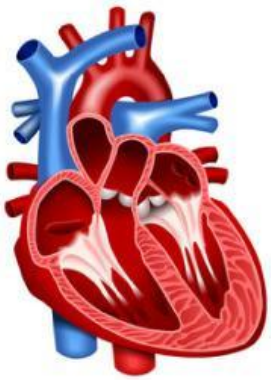
BLOOD

Blood is a substance that is flowed by blood vessels to the part of the body through which it passes. Blood serves to deliver oxygen, nutrients, hormones, and metabolic results throughout the body. Blood consists of 4 main components, namely blood plasma which is composed of 90% water and other solutes. Erythrocytes (red blood cells) and function to circulate oxygen throughout the body, Leukocytes (white blood cells) function to fight germs that enter the body, Platelets (pieces of blood) which function to stop bleeding by producing fibrin protein.

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ORGANS IN THE CIRCULATORY SYSTEM



the heart and blood vessels are organs in the circulatory system. Blood vessels serve as circulatory channels. The heart is an organ that has a very important role in the human circulatory system. The heart functions to pump blood to flow throughout the body and receive blood from the lungs to flow again. The structure of the heart has 4 chambers, each of which has its own function.

The left porch (atrium) serves to receive O2-rich blood from the lungs

The right porch (atrium) serves to receive CO2-rich blood from all over the body

The left room (ventricles) serves to pump O2-rich blood throughout the body

The right room (ventricles) serves to pump CO2-rich blood into the lungs

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TYPES OF BLOOD CIRCULATION

Blood circulation is divided into two, namely small blood circulation and large blood circulation. Blood flow on small blood circulation through the heart to the lungs and back to the heart. While blood flow in large blood circulation is going from the heart to the whole body except the lungs and back to the heart

DISEASES OF BLOOD CIRCULATION

As in other organ systems in the body, the circulatory system is also likely to experience interference. The disorder can be caused by a person's lifestyle or heredity

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OBSERVING DIFFERENCES IN BLOOD VESSELS

The circulatory system in the human body needs channels that are used to circulate blood throughout the body. Channels in the circulatory system are called blood vessels. Blood vessels are generally divided into 2, namely arteries and veins. What is the difference between these two blood vessels? Watch the video at the following link to answer the questions below!

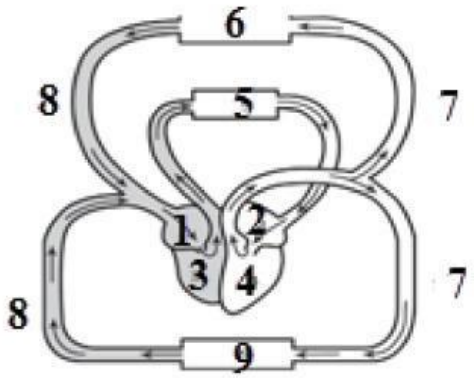
No	Difference	Artery	Venous
1.	Location		
2.	Walls		
3.	Direction of flow		
4.	Flowed blood content		
5.	Blood pressure		

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IDENTIFY THE TYPE OF BLOOD CIRCULATION

The circulatory system in the human body is divided into two, namely small blood circulation and large blood circulation.



Based on the above human circulatory scheme, explain what is meant by a large circulatory system and a small circulatory system!

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ANALYZE DISEASES OF THE CIRCULATORY SYSTEM

After knowing the various organs in the circulatory system, it is necessary to know that the circulatory system can also experience ill conditions. Correctly relate the name of the disease in the circulatory system to the factor that caused the appearance of the disease.

Hipotensi	Condition when blood pressure is much lower than it should be
Stroke	Conditions when blood pressure is much higher than it should be
Anemia	Conditions when the body lacks red blood cells
Heart Attack	Conditions when blood flow that carries a lot of oxygen cannot flow to the heart
Hypertensive	Condition when the brain does not get enough oxygen supply from blood vessels

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CONCLUTION

Create a concept map related to the material already covered on the student worksheet

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EXPERIENCES RELATED TO THE CIRCULATORY SYSTEM

After studying various aspects related to the circulatory system, of course, students are expected to be able to identify various events that have been experienced or encountered related to the circulatory system.

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REFLECTION ACTIVITIES

How are the activities working on LKPD today?
Write down your impressions and messages and the benefits you get from today's learning

Impression

Message

Benefit

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