LET'S EXPLORE OUR BODY SYSTEMS

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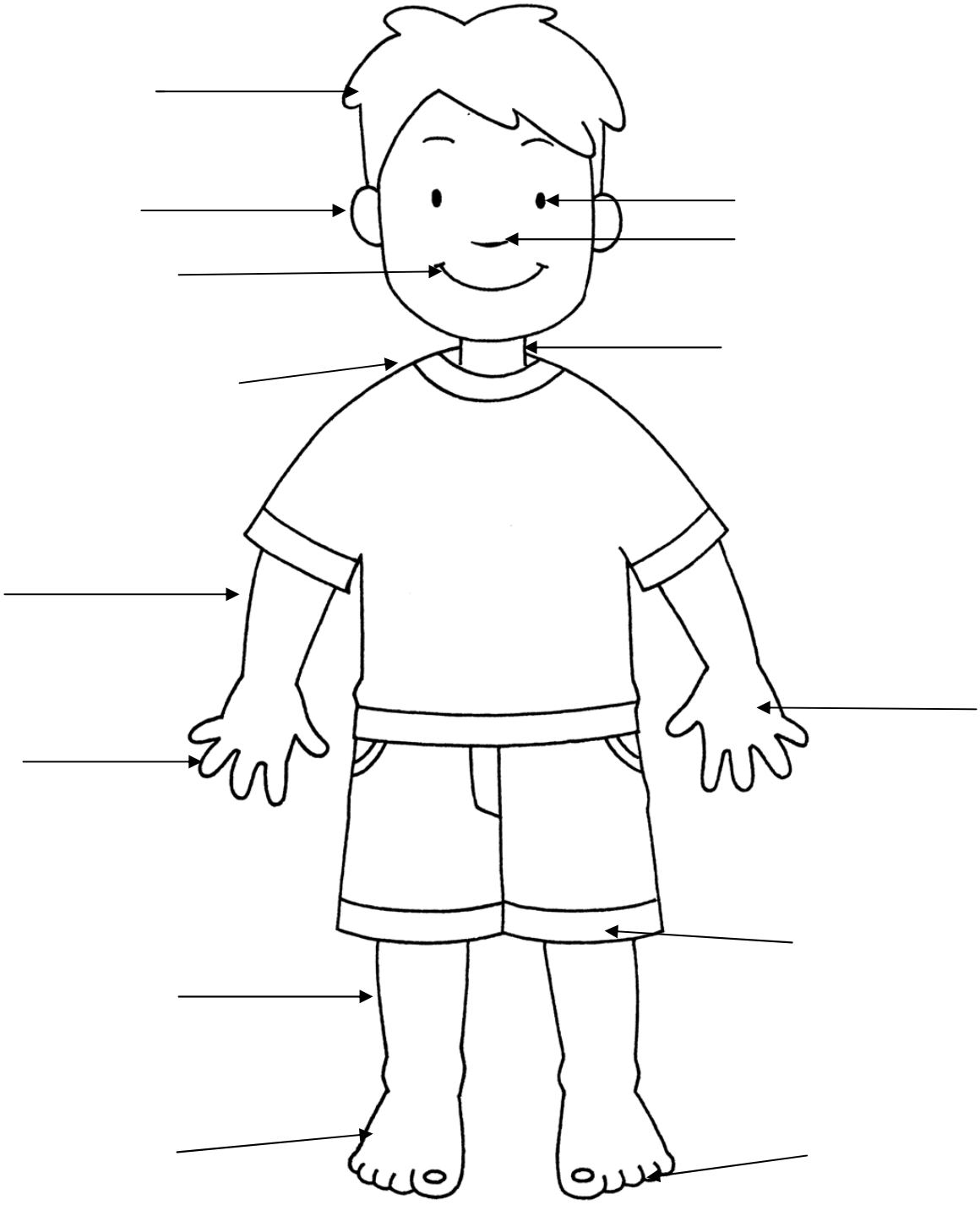
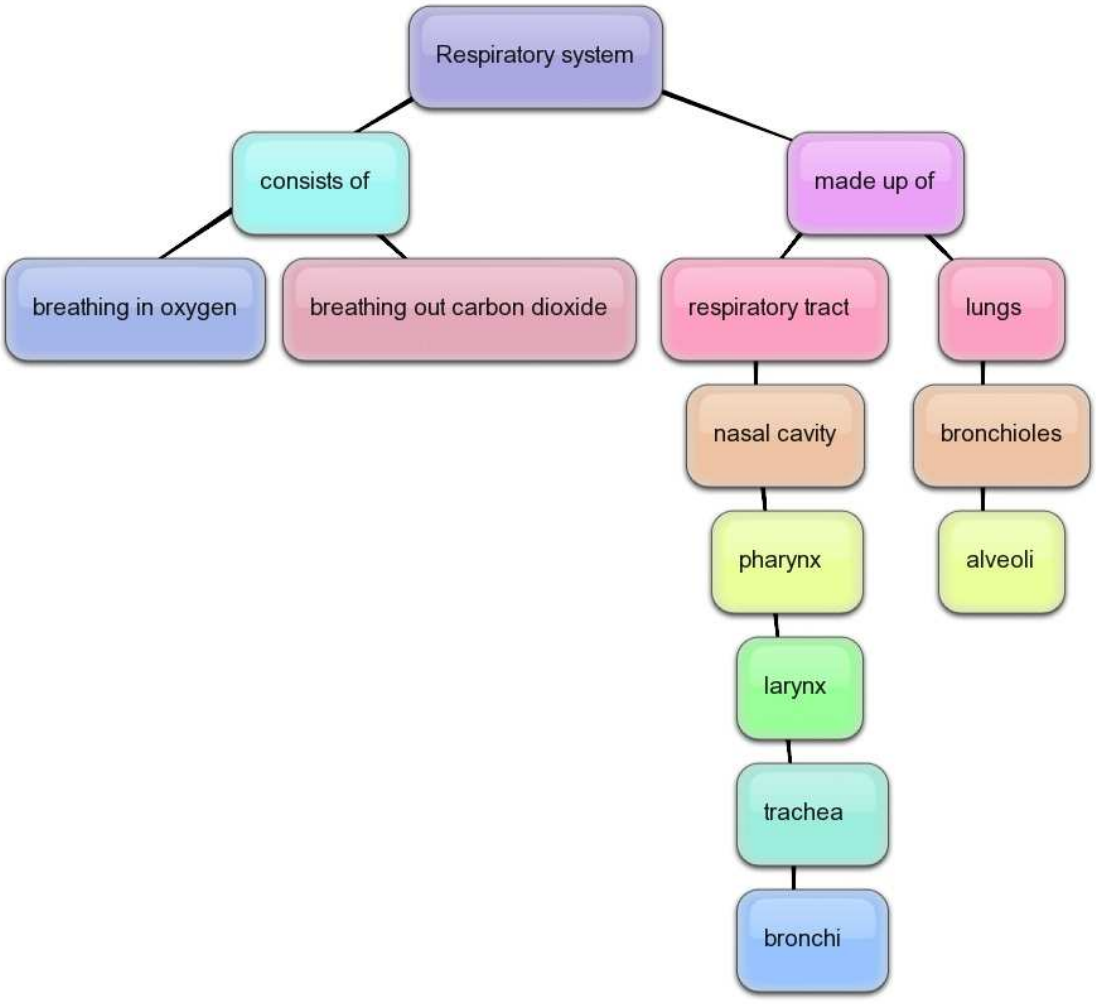
1. Write the parts of the body.



1. **Odd one out and say your reasons.**
   - Mouth, nose, brain, ears
   - Heart, lungs, arm, bronchioles
   - Larynx, trachea, bronchi, eyes
   - Air, leg, exhale, inhale
   - Oxygen, body, smoke, carbon dioxide

2. **Concept map**

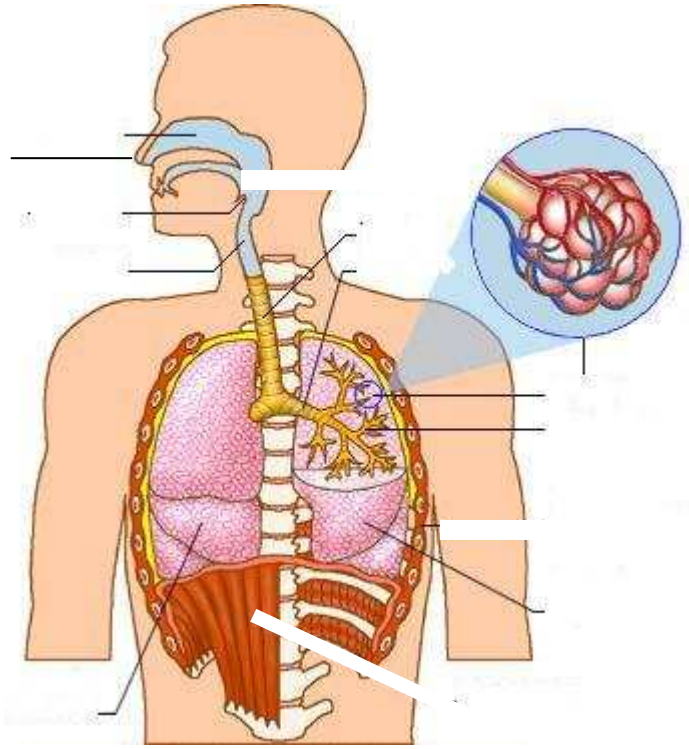


-Explain the concept map:

3. Label the picture

Word bank

trachea, right lung, left lung, nasal cavity, larynx, nose, alveoli, bronchi, pharynx, bronchioles



4. Circle true or false.

1. The respiratory system obtains oxygen and expels carbon dioxide. T/F
2. When we inhale, the air leaves our lungs. T/F
3. When we exhale, the air goes out of the lungs. T/F
4. Air passes through the pharynx, larynx, trachea, bronchi and bronchioles on its way to the lungs. T/F
5. Smoking is good for our lungs. T/F
6. When we run, our breathing is slower. T/F

5. Order these sentences:

When we exhale, the air goes out of the lungs. ☐

After the pharynx, the air goes through the larynx. ☐

The air goes into the bronchi. It takes the air into the lungs. ☐

In the lungs, the air goes into the alveoli. ☐

The air goes through the trachea. ☐

When we inhale, the air goes through the nose and the nasal cavity. ☐

The air goes through the pharynx. ☐

6. Trio dictation.

1. Breathing is the cycle of moving air in and out of the lungs.
2. When we exhale, the air leaves the lungs.
3. When we inhale, our lungs fill with air.

7. Experiment 1.

Check your pulse and count how many times your heart beats in one minute.

Then, count how many times you breathe in one minute.

Now walk for two minutes. Check your heart and breathing rates.

Finally, run for two minutes. Check your heart and breathing rates again.

	At rest	Walk	Run
Heartbeat			
Breathing			

Answer these questions:

1. **Does your heartbeat remain the same after walking or running? Why?**
2. **Does your breathing remain the same after walking or breathing?**
3. **Why is it good for our bodies to have a faster heartbeat?**
4. **When can you see people breathing fast?**

8. Experiment 2.

1. Measure your chest when:

- **You inhale air**
- **You exhale air**
- **You inhale deeply**

Write the results in the table.

Breathing	Chest size
Inhale air	**cm**
Exhale air	**cm**
Inhale deeply	**cm**

Answer the questions:

1. **What happens when you inhale air? Are your lungs bigger or smaller?**
2. **And when you exhale air?**
3. **What happens when you inhale deeply?**

9. Complete the table.

Are the humans the only species who need lungs to breathe?

And are the humans the only species who need the heart to live?

	Lungs	**Heart**
Humans		
Animals		

1. **Draw a red cell, a white cell and a platelet. Write next to the drawing its function.**

2. **Write the cell's name to complete the sentences:**
   a) ---------- carry oxygen from the lungs to the cells and carbon dioxide from the cells to the lungs.

   b) ---------- protect you from germs and illness.

   c) ---------- help blood to clot.

3. **Try it yourself.**
   In a safe place, turn one arm around a few times. Quickly, hold both hands together and compare them. Are they the same colour? What do you thing has happened? Complete the table:

Cause	Effect

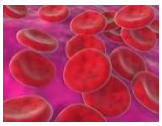
4. Read the text and answer some questions:

Blood is a red liquid made of different types of cells that are carried in a liquid called plasma. Blood transports water, nutrients, oxygen, carbon dioxide and waste products.

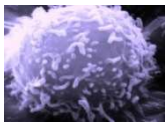
The types of cells are three: red cells, white cells and platelets. Each one has a different function. Red cells need iron. If our body haven't got iron, the cells haven't got oxygen and we feel tired. In our diet, we should include food that contains iron such as meat, fish, vegetables and fruit.

White cells are bigger than red cells. They find and destroy bacterias.

Platelets help to stop bleeding.



Red cells



White cells

Platelets

Questions:

1. **Is blood always the same colour?**
2. **Which things does blood transport?**
3. **Do we need to eat healthy? Why?**
4. **Are red cells bigger than white cells?**
5. **What do platelets do?**

5.Multiple choice:

1. How much blood has and adult got?
   a) As 7 litre bottles
   b) As 5 litre bottles
   c) As 3 litre bottles

2. How much blood has a child got?
   a) As 1 litre bottle
   b) As 2 litre bottles
   c) As 3 litre bottles

3. Blood changes its colour depending on ...
   a) iron
   b) oxygen
   c) your diet

4. Blood contains...
   a) iron
   b) cells and plasma
   c) germs

5. Blood eliminates...
   a) white cells
   b) platelets
   c) waste

6. The blood cells are...
   a) 3
   b) 2
   c) 4

7. Red cells...
   a) stop bleeding
   b) destroy bacterias
   c) carry oxygen

8. Which cells are the most numerous?
   a) Red cells
   b) White cells
   c) Platelets

9. You can see cells through...
   a) a telescope
   b) a magnifying glass
   c) a microscope

10. Cells need...
    a) oxygen
    b) nutrients
    c) oxygen and nutrients

1. Answer these questions with *yes* or *no*

1. Is it necessary for doctors to check a person's blood group if they need a transfusion? Yes / No
2. Are there three blood groups? Yes / No
3. Are the blood groups A, B, C, D? Yes / No
4. Can plasma be useful for people who have liver's problems? Yes / No
5. Can platelets stop a person's bleeding? Yes / No
6. Can red cells be useful for an operation? Yes / No

2. Read the text and answer the questions.

Many people can give blood. Their blood is analysed and if it is healthy, it can be used to help other people. The quantity of blood you give is 450cc each time you are a blood donor. It doesn't hurt and there isn't any risk.

Questions:

1. **Who can give blood?**
2. **Has an adult to be healthy to give blood?**
3. **How much blood can you give in one donation?**
4. **Does it hurt?**
5. **Is there any risk?**

3. Find the words.

Word search

E H X D M Z E Q S D

P K O J O T C T J O

U N H S I O E E S N

O A S H P L L M L A

B J W D E I G B L T

D P M T C R T N E I

X J A Y O R P A C O

B L W U R E D C L N

P O P E R A T I O N

B S A M S A L P W I

BLOOD
CELLS
DONATION
GROUPS
HOSPITAL
OPERATION
PLASMA
PLATELETS
RED
WHITE

4. Fill the gaps using the words given. Then, think and answer some questions.

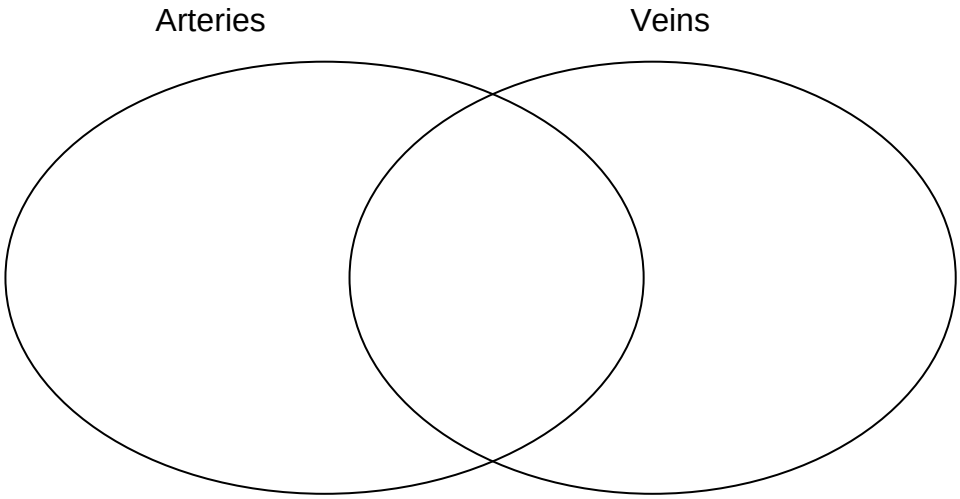
liver, save, recipient, kidneys, donor, heart

1. The person who receives an organ from other person is called ----------.
2. The person who gives the organ is the ----------.
3. Organ donation can ---------- many lives.
4. Some organs can be transplanted are ----------, ---------- and ----------.

Questions:

1. **Why are transplants necessary?**
2. **Can organs be outside the body many hours? Why?**
3. **Do you know anyone who has been a donor or has received an organ?**

1. **Venn diagram. Write two different characteristics between arteries and veins in the two outside parts of the diagram and two common characteristics in the middle.**



2. **Write the words in the sentences.**

Veins, Capillaries, Arteries

1.---------- transport blood **from** the heart.

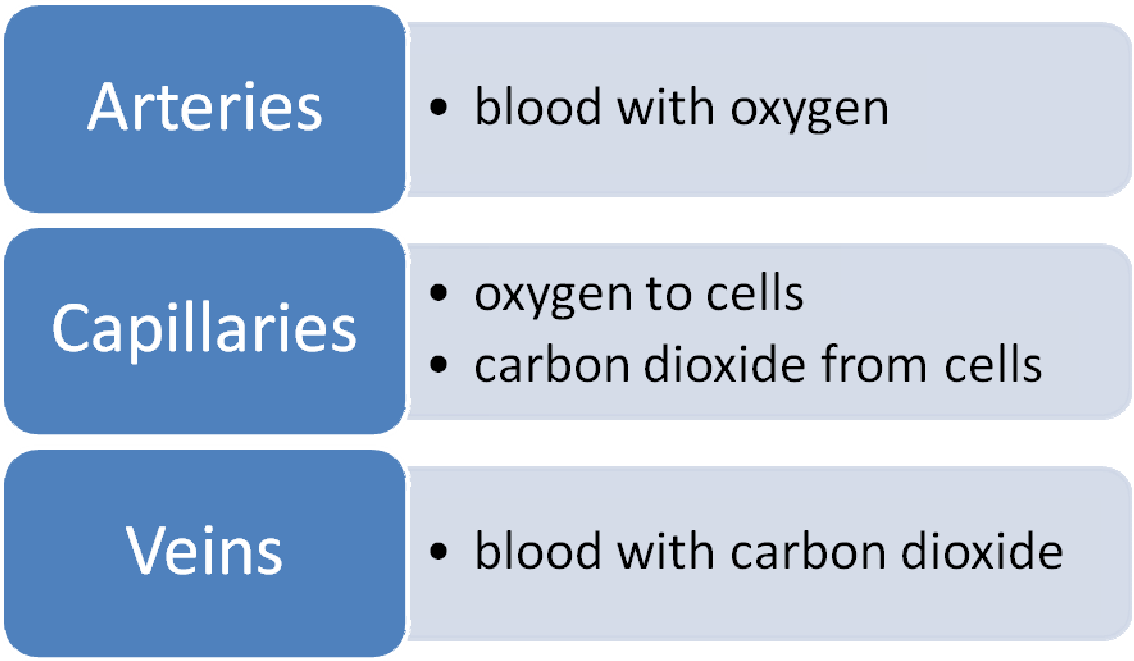
2.---------- transport blood **to** the heart.

3. ---------- connect veins and arteries.

3. **Match the words to their definitions.**

1. Capillaries	a) are blood vessels which carry blood away from heart.
2. Veins	b) are tiny blood vessels which connect arteries to veins.
3. Arteries	c) are blood vessels which carry blood to the heart.

4. Look at the diagram.

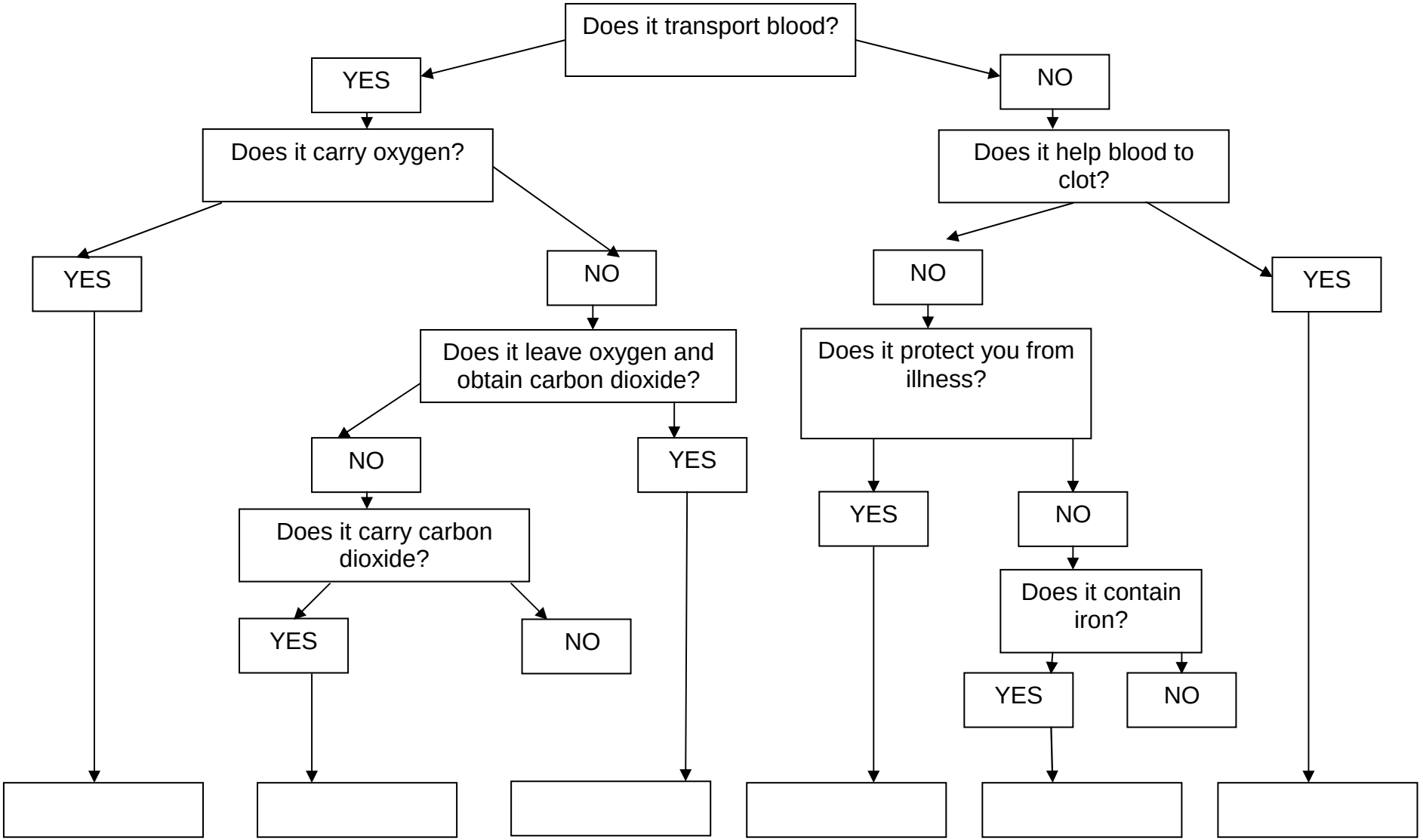


Write the information from the diagram in sentences. Use the words in the boxes below.

---------- transport ---------- from / to ----------
---------- change ----------into ----------

5. Identify the blood cells and vessels

red cells, white cells, platelets, arteries, veins, capillaries



1. Read the text.

The heart is an organ. It pumps blood around our body. It is in the middle of your chest. It is between the lungs. It is about the size of a fist. Each time our heart beats, it pushes blood to all organs in our body.

→ **Answer true or false.**

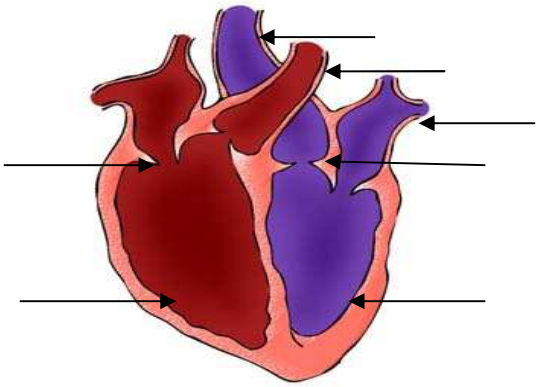
1. The heart is a bone. T / F
2. The heart is in the middle of your stomach. T / F
3. The heart is between the lungs. T / F
4. The heart is about the size of a hand. T / F
5. When the heart beats, it pushes blood to our body. T / F

2. In pairs, describe the following words:

Artery	Red cell	Liver	A, B, AB, O
Platelet	Heart	Vein	Plasma
Lung	White cell	Capillary	Brain

3. Label the picture with words from the box.

aorta, left ventricle, right ventricle, right atrium, left atrium, pulmonary vein, pulmonary artery



4. Order the words to complete the definition of heart.

The heart ----------

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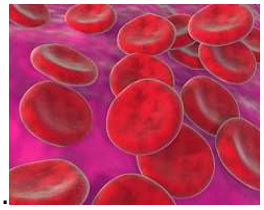
organ-the-is-that-blood-pumps-body-around-our-inside-chest-your

5. Write the name under the correct picture or description.

platelets, vein, red cells, heart, white cells

1. 
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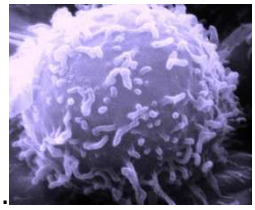
2. 
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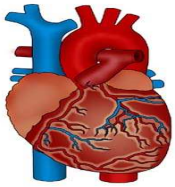
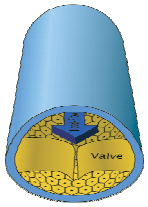
4. 
This is a ----------

5. 

This is a ----------

6. Read the text.

The heart is a powerful pump that forces our blood to circulate throughout our bodies, from our head to our toes. It weighs about 200-300 grammes and it pumps between 7,000 and 8,000 litres of blood in a day. It beats 120,000 times during a day. In a year, it beats more than 30 million times.

Every time the heart beats, it produces a sound called the heartbeat. You can listen to a person's heartbeat by placing your ear next to his/her chest or putting your hand on his/her wrist. Doctors use a stethoscope to listen to your heart.

At rest, the heart beats 60 to 80 times per minute. When you do physical exercise, your pulse can reach 200 times per minute.

→ **Choose one title for the text:**

1. The heart's work
2. Our strong heart
3. The heart's problems
4. Our weak heart

→ **Answer the questions about the text.**

1. **How many grammes does the heart weigh?** ----------
2. **How many litres of blood does the heart pump every day?** ----------
3. **How many heartbeats are there in a day?** ----------
4. **How many heartbeats are there in a year?** ----------
5. **How many times does your heart beat per minute?** ----------

7. Read and say the poem.

My heart beats faster when I run.
My heart beats slower when I'm calm.
My heart pumps blood through my body.
My heart likes everybody.
My heart is in the middle of my chest.
My heart is one of the best.
My heart is not very weak.
My heart is amazingly big.

→ **Now, make the acrostic:**

H

E

A

R

T

1. Read the text. Mime it or write the missing words.

The circulatory system consists of blood vessels and the heart. There are two circulatory systems: the pulmonary circulation is when blood is transported from the heart to the ---------- and from the lungs to the heart.

The general circulation is when blood is transported from the ---------- to the rest of the ---------- and from the rest of the body to the heart.

The circulatory system consists of ---------- and the ----------. There are -------- circulatory systems: the pulmonary circulation is when blood is transported from the ---------- to the lungs and from the lungs to the heart.

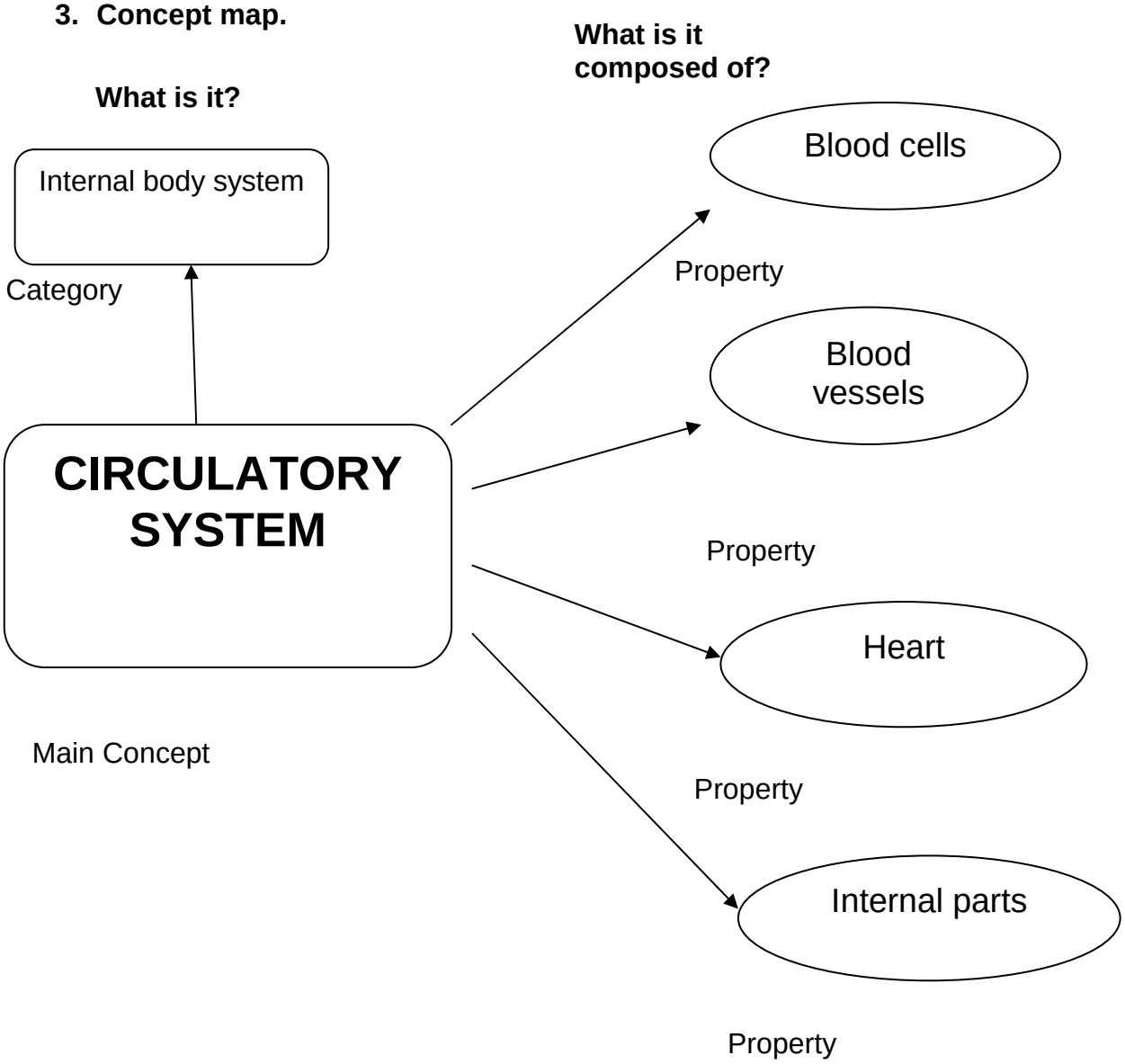
The general circulation is when blood is transported from the heart to the rest of the body and from the rest of the body to the heart.

2. Classify the words in the box below into 5 categories.

red cells, capillaries, A, pulmonary circulation, lungs, platelets, arteries, AB, general circulation, liver, B, brain, veins, white cells, heart, O.

Internal parts	Blood cells	Blood vessels	Types of blood	Circulatory systems

3. Concept map.



New Definition:

The circulatory system is

.....

.....

.....

.....

.....

1. Look at the following healthy and unhealthy habits.

	Predict (?)		**Check** 	
	Good	**Bad**	**Good**	**Bad**
Not doing sport				
Eating fruit and vegetables				
Smoking				
Doing exercise				
Drinking alcohol				
Eating sweets and chocolate cakes				

What a surprise!

---------- and ---------- are healthy habits.

----------, ----------, ---------- and ----------

------ are unhealthy habits.

Now give more examples of healthy and non healthy habits.

Healthy	**Non healthy**

2. Talk to your partner and decide which of these things are good or bad for your health. Write a G for good and B for bad next to the sentence.

a) Drinking lots of beer.
b) Walking to school.
c) Eating fish and yogurt.
d) Smoking.
e) Eating cakes.
f) Driving to the shops.

3. Answer these questions:

a) Why is it good to eat fruit and vegetables? Because ----------
---------.
b) Why is it bad to smoke? Because ----------
---------.
c) Why is it bad to drink alcohol? ----------
---------.
d) Why is it good to do regular exercise? ----------
---------.

Title:

1. **Look at these two school lunches.**
   a) Which one is healthier?
   b) What food should you include in the non healthy lunch to make it healthier?

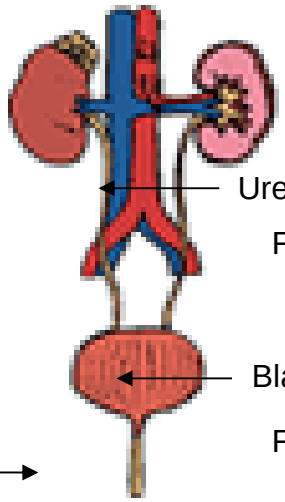
1. Read the text.

Excretion is the process in which blood is cleaned, and waste substances are eliminated. The **excretory system** is responsible for excretion. The **kidneys** are the organs of the excretory system. These two organs filter the blood and produce urine. This is made up of water (95%) and waste substances (5%). The **urine** leaves the kidneys and passes through the **ureters,** two tubes which go to the **bladder**. The urine is accumulated there until it is expelled through the **urethra**.

The **sweat glands** in the skin also help in excretion. They make sweat.

Kidney →

Function:



Ureter

Function:

Bladder

Function:

Urethra →

Function:

2. Circle yes or no

1. The circulatory system is responsible for excretion. Yes No
2. The kidneys are the organs of the excretory system. Yes No
3. The urine leaves the kidneys and passes through the urethra. Yes No
4. The urine is accumulated in the bladder. Yes No
5. The urine is expelled through the urethra. Yes No

1. **Order the steps in the excretion process.**

a) The kidneys filter the blood. ☐
b) Urine is expelled through the urethra. ☐
c) Urine is carried by the ureters. ☐
d) Blood goes through the kidneys. ☐
e) Urine is formed. ☐
f) Urine is stored in the bladder. ☐

2. **Now, write the sentences in order using *First, Next, Finally*.**

---.

3. **Match the words with their job.**

a) Kidneys	1. Stores the urine
b) Ureters	2. Expels the urine
c) Urethra	3. Forms the urine
d) Bladder	4. Carries the urine

1. **Classify the organs according to the system they belong to:**

veins – lungs – bronchi – heart – nose – kidneys – bladder – arteries – capillaries

Respiratory system	Circulatory system	Excretory system

2. **Find one from each group that does not belong. Circle it:**

1. Respiratory tract: larynx bronchi tongue trachea
2. Blood: microbes plasma red cells platelets
3. Heart: ventricle alveolus heartbeat atrium
4. Urination: urethra bladder oxygen kidney

→**Why is it the odd one out?**

3. **Write the system after each sentence:**

a) Distributes nutrients to our body ----------
b) Carries oxygen to our whole body----------
c) Filters waste matter from the blood ----------
d) Takes in oxygen from the air ----------
e) Carries away carbon dioxide from our cells ----------
f) Expels carbon dioxide from our body ----------
g) Makes urine ----------
h) Processes the food we eat ----------

4. **Find the names of eight body parts in the word search.**

A	U	E	T	N	V	L	G	X	B
K	H	R	I	R	A	K	N	I	K
N	D	E	E	R	A	J	U	F	I
X	V	J	Y	T	P	E	L	X	D
Z	W	N	K	Y	H	P	H	Z	N
H	X	Y	R	E	T	R	A	M	E
B	R	O	N	C	H	I	A	S	Y

ARTERY	BRONCHI	HEART
KIDNEY	LARYNX	LUNG
URETHRA	VEIN	

5. Complete the sentences with the correct answers.

1. The trachea forms part of the ---------- system.
    a) Circulatory
    b) Respiratory

2. The two breathing phases are ……
    a) Inhalation and exhalation
    b) Exhalation and circulation

3. Kidneys are involved in …….
    a) Circulation
    b) Excretion

4. Blood leaves the heart through the…….
    a) Arteries
    b) Veins

5. Blood returns to the heart through the ….
    a) Veins
    b) Capillaries

6. When we breathe out, we release ……
    a) Carbon dioxide
    b) Oxygen

7. Our diet should ….
    a) Be healthy and varied
    b) Only include our favourite food

6. Look at the columns and complete them with the words from the box below:

Respiratory system	Circulatory system	Excretory system
• respiratory tract	• blood cells	• kidneys

nasal cavity, pharynx, blood vessels, larynx, bladder, trachea, ureters, bronchi, lungs, alveoli, urethra, bronchioles, heart

→Now complete the sentences:

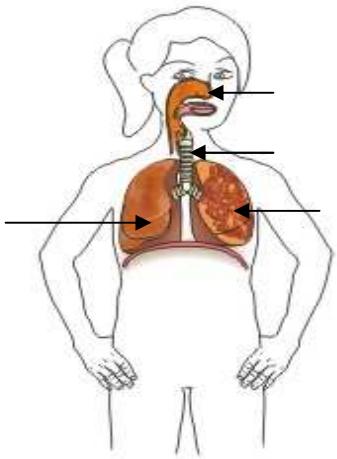
The _____ is made up of _____

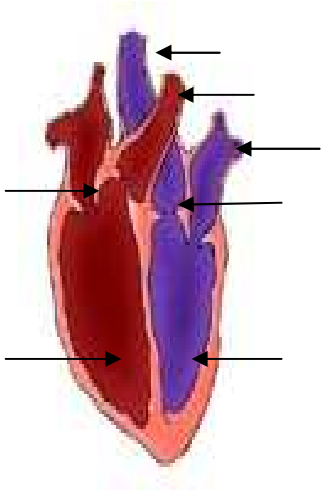
The _____ is made up of _____

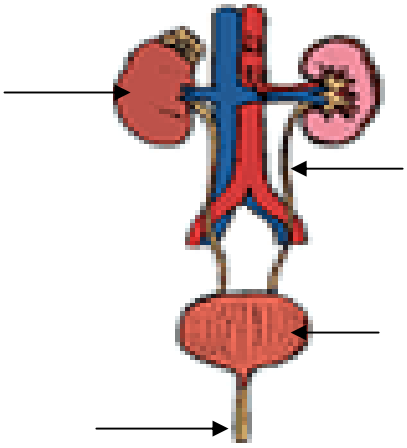
The _____ is made up of _____

1. Label the three systems. Use the words in the box below.

nasal cavity, aorta, kidney, bladder, trachea, left ventricle, urethra, right ventricle, bronchi, pulmonary vein, ureters, right atrium, lung, left atrium, pulmonary artery.







2. Complete the text while listening.

Respiratory system:

Its function is to obtain ---------- and expel ----------.

It is made up of the ----------, the ---------- and the ---------- tract.

Circulatory system:

It moves ---------- and ---------- to all the cells in our body.

It is made up of ----------, ---------- ---------- and ----------.

Excretory system:

It eliminates the ---------- from our body. It is made up of the ----------, the ----------, the urethra and the ----------.

Alcohol and tobacco:

They are ---------- habits that damage your ---------- and your----------.

Drinking ---------- and eating ---------- food is good for your health.

Giving blood:

When people give blood to help other people, it is called a ----------.

Any healthy adult can be a ---------- ----------. There are four blood groups: A, -----, ----- and -----.

Heart:

It is in the middle of your ----------. It is of the size of a ----------. It pumps ---------- through the ---------- ---------- to the rest of the body.