**10. Water and the Human Body**

Learning objectives:

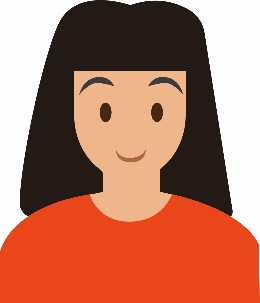
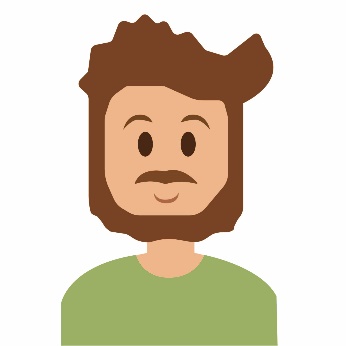
* Learn about the proportion of water in a human body

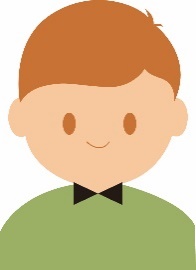
1



The proportion of water in the human body

We cannot survive without water, because water is an essential element in our body. Let’s take a look at the proportion of water in our body!  
1. More than half of the human body’s weight is water. But the proportion is different for adult male, adult female and children. List them in the blanks below.

****



Adult female: ~ 　　 %

Adult male: ~ 　　　 %

Children: ~ 　 　 %

2. The proportion of water in different body tissues also differs. Arrange the following from most water to least water contained.

|  |  |  |
| --- | --- | --- |
| \\Taiyar\wsd\Primary\02 Lesson Plan + Worksheet\NEW\graphic\ws_10_1_4.jpg | \\Taiyar\wsd\Primary\02 Lesson Plan + Worksheet\NEW\graphic\ws_10_1_6.jpg | \\Taiyar\wsd\Primary\02 Lesson Plan + Worksheet\NEW\graphic\ws_10_1_5.jpg |
| Muscles | Bones | Lungs |

Answer: (Most) 　　　　　 > 　　　　　 > 　　　　　 (Least)

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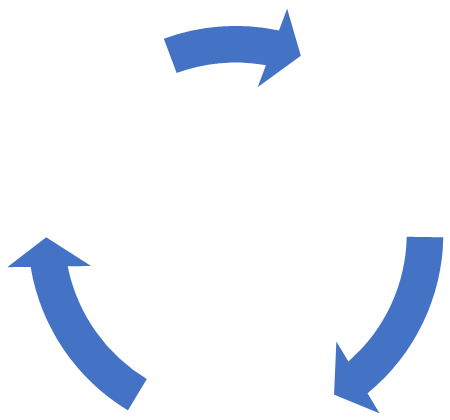
**10. Water and the Human Body**

Learning objectives:

* Learn about the human circulatory system
* Learn about the role of water in the human circulatory system



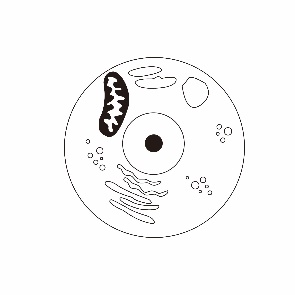
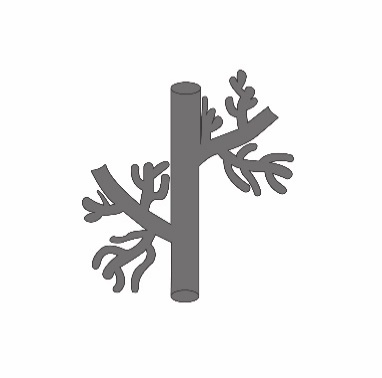
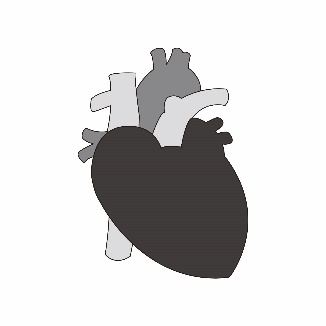
Circulatory systems in the human body  
The human body is made up of cells which need oxygen and nutrients to sustain their activities, and to release carbon dioxide (CO2) and other by-products in order to function properly. The circulatory system in the human body consists of the heart, blood vessels and the blood, where the blood acts as a transporter to bring in oxygen and nutrients to cells and bring out carbon dioxide (CO2) and other metabolic waste.



1. Blood is first pumped from the \_\_\_\_\_\_\_\_\_\_
2. Then it goes through big and small

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_ are delivered to cells
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ is carried back to the heart.
3. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in cells are transported away.



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2

Did you know? 90% of blood is water, therefore water has an irreplaceable role in the circulatory system.

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**10. Water and the Human Body**

Learning objectives:

* Learn about the importance of water in a human body

Importance of water in a human body

1. Water is very important to the human body. When the body lacks water, blood will become（ thick／thin ）and viscid. Metabolism will then be （ boosted／slowed down ）, making the person（ energetic／tired ）and prone to infection of diseases.

Soft drinks, tea, coffee and alcohol all catalyse excreting water in our body.

1. According to the different degrees of water loss, match the descriptions with the correct pictures showing the consequences by joining lines.

|  |  |  |  |
| --- | --- | --- | --- |
| The body loses  2% of water | ⚫ | ⚫ | \\Taiyar\wsd\Primary\02 Lesson Plan + Worksheet\NEW\graphic\ws_10_3_1.jpg  Feel thirsty |
| The body loses  3% of water | ⚫ | ⚫ | \\Taiyar\wsd\Primary\02 Lesson Plan + Worksheet\NEW\graphic\ws_10_3_3.jpg  Life threatening |
| The body loses  >20% of water | ⚫ | ⚫ | \\Taiyar\wsd\Primary\02 Lesson Plan + Worksheet\NEW\graphic\ws_10_3_2.jpg  Memory becomes unclear and difficult to concentrate |

3

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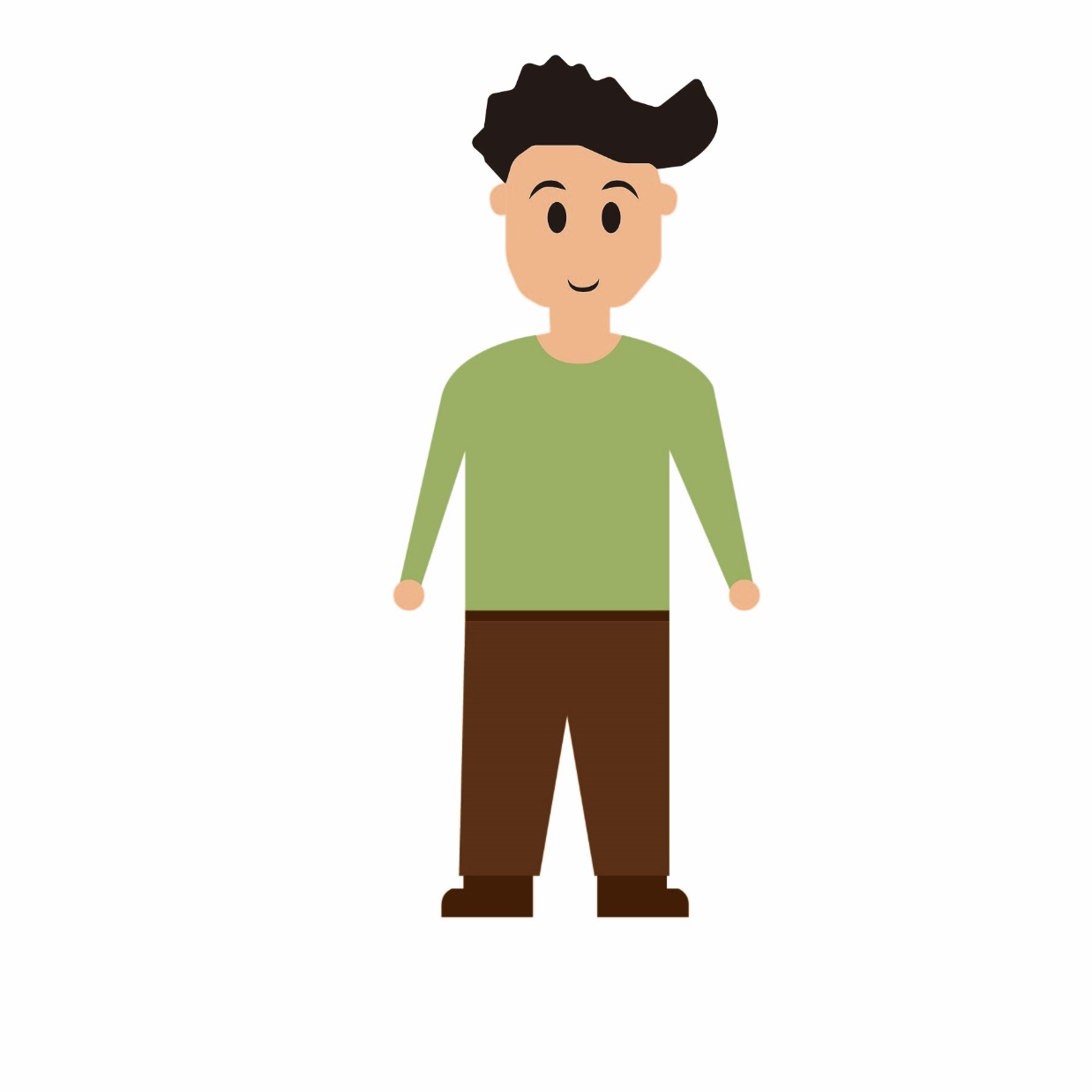
**10. Water and the Human Body**

Learning objectives:

* Understand how the body intakes and excretes water



Apart from its important role in the circulatory system, water also helps in swallowing, digesting and regulating body temperature etc. A normal adult excretes 2.5 litres of water in average, so we have to intake water from various sources to replenish the water output. According to the amount of water intake and output every day, fill in the blanks below.



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4

**2.5 L water output**

**2.5 L water intake**

Respiration and evaporation from skin: 0.9 L

Urination:（　 　）L

Excretion: 0.1 L

Water, beverages and food:

（　 　）L

Metabolism from carbohydrates: 0.3 L

水、飲料和食物： （　2.2　）公升

從碳水化合物代謝中產生 ：0.3公升

Remember to drink enough water every day and replenish water!

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