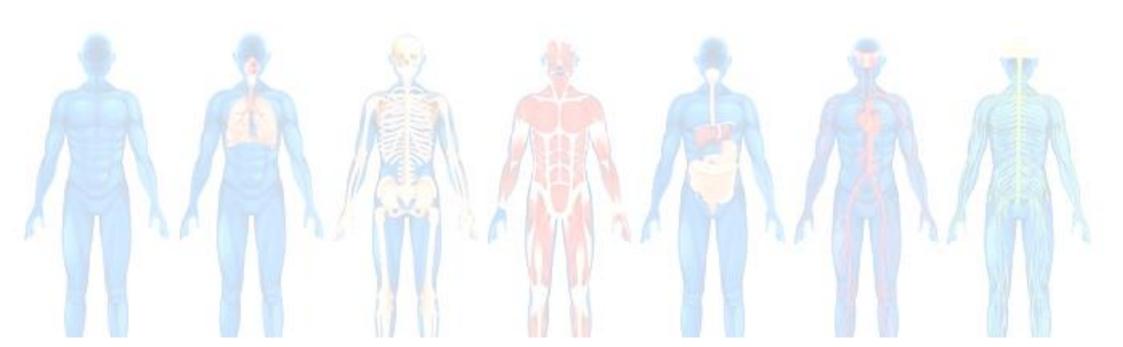
# The Human Body

An exploration in the human body and its main systems.

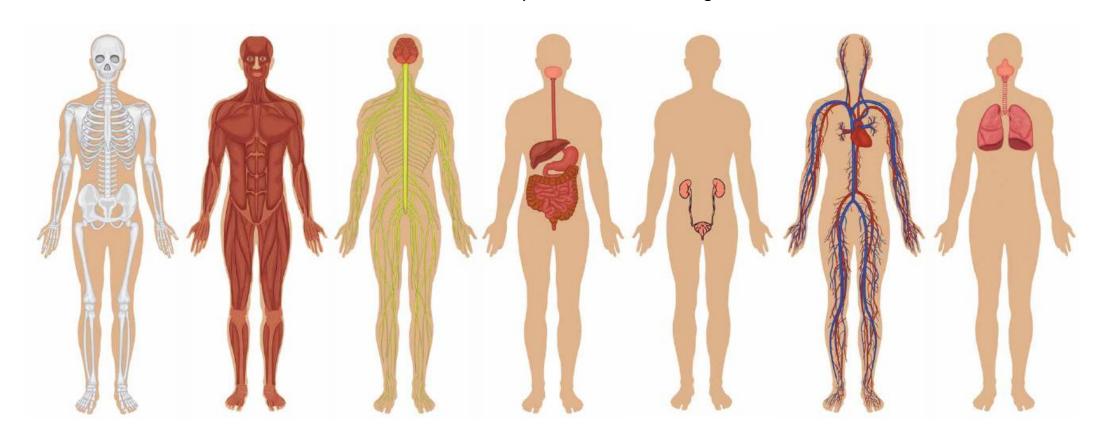
Year 6 Workbook

This workbook covers multiple lessons (3)



## **Human Body Systems**

Name each of the different systems shown in the diagrams below:



#### Word bank:

| Skeletal | system |
|----------|--------|
|----------|--------|

What are the key functions of the skeleton?

What is the function of the:

ribs

In numbers: How many bones are in the:

Hand? \_\_\_\_\_bones

Foot? \_\_\_\_\_ bones

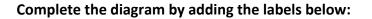
Spine? \_\_\_\_\_ bones

Whole body? \_\_\_\_\_ bones

What is the function of the: skull (cranium and mandible)

What is the function of the:

vertebrae



teeth, sternum, humerus, radius, ulna, phalanges, metatarsals, femur, tibia, fibula, patella, pelvis

What are the roles of the following parts of the circulatory

#### Circulatory system

| What are the key functions of the circulatory system? |  |  |  |
|---|--|--|--|
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |

Using the diagram, label:

- the heart
- an artery
- a vein

| In diagrams, red lines repr   | esent             |
|-------------------------------|-------------------|
| blood                         | and blue lines    |
| represent                     | blood. In our     |
| bodies, all blood is red, ev  | en though some    |
| veins appear blue through     | our skin. This is |
| because of a trick of the lig | ght passing       |
| through our skin.             |                   |

Valves: Valves open and close in blood vessels. The aortic valve and pulmonic valve.

system? Heart: Arteries : \_\_\_\_\_\_ Veins : Capillaries : Complete the missing labels and add arrows to show the flow of blood. aortic valve superior vena cava pulmonic valve pulmonary artery (left) right pulmonary veins left pulmonary veins inferior vena cava

**Key Words for labelling heart**: aorta, right atrium, left ventricle, pulmonary artery (right), left atrium, right ventricle

#### Respiratory system

| What are the key functions of the respiratory system?          |      |
|--|------|
|  |      |
| Why are the circulatory and respiratory system interdependent? |      |
|  |      |
| What is the diaphragm and what is its ro                       | ıle? |
|  |      |

#### Match the part to the description of its use.

trachea •

 A muscle that moves to help get air in and out of the lungs.

ribs •

- Part of the lungs where the gas exchange occurs.
- alveoli (air sacs) ●
- The pipe which air travels down to reach the lungs.

larynx •

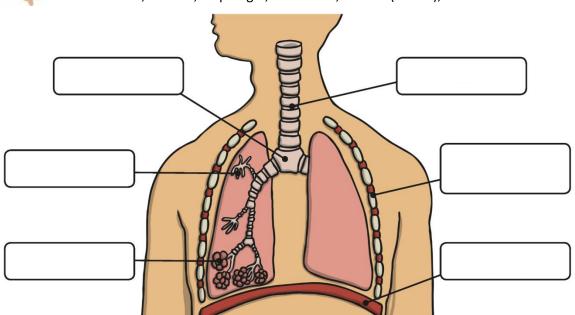
 Part of the skeletal system which protects the lungs.

diaphragm •

 An organ in the top of the neck involved in breathing, producing sound and protecting the trachea against food aspiration (suffocation).

#### Label the diagram below:

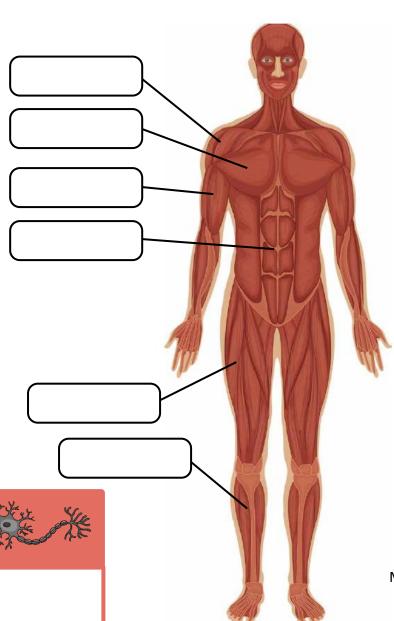
Bronchus, trachea, diaphragm, bronchiole, air sacs (alveoli), intercostal ribs



## Muscular system

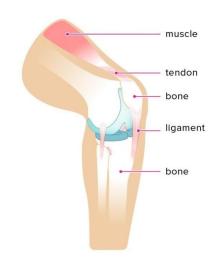
# What are the key functions of the muscular system? What does it mean if a muscles contracts? Name the 3 different types of cell:

Find the names for the muscles that are labelled:



## What is a ligament and tendon?

|         |      | <br> |
|---------|------|------|
|         | <br> |      |
| tendon: |      |      |
|         |      |      |
|         |      |      |



#### True, false or grey area?

| The heart is a muscle. |  |
|------------------------|--|
| The brain is a muscle. |  |

Muscles are controlled by electricity.

Muscles relax if they receive an electrical charge.

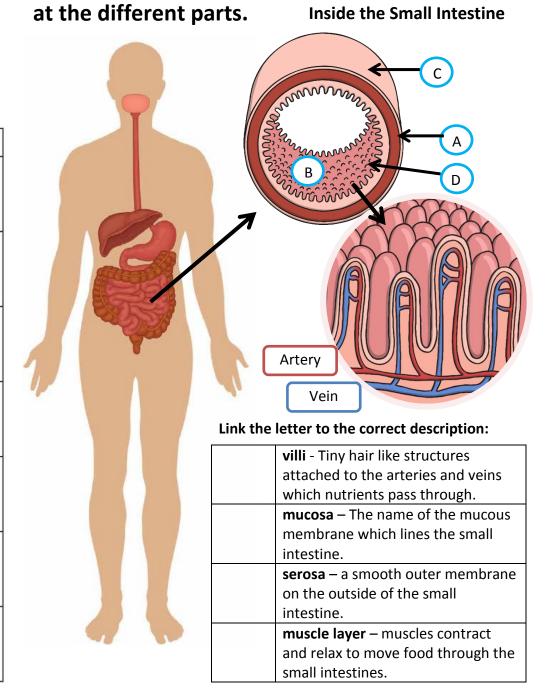
### Digestive system

What are the key functions of the digestive system?

See page 8 for a more detailed look

| , |  |  |  |
|---|--|--|--|
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |

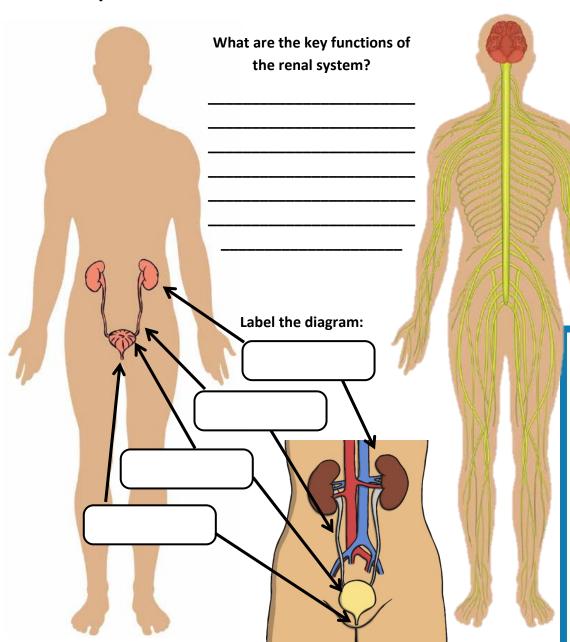
| Nutrient      | Found in (examples)            | What it does/they do |
|---------------|--------------------------------|----------------------|
| carbohydrates | BUDGET GRAIN WHOLDSTAN BELD    |                      |
| protein       | FOGHUFT                        |                      |
| fibre         | GRAIN CEREAL PREMIUM WHOLEMEAL |                      |
| fats          | PLAIN NUTS                     |                      |
| vitamins      | PLAIN NUTS                     |                      |
| minerals      |                                |                      |
| water         |                                |                      |



#### Renal system

#### Nervous system

Fill in the blanks: spinal cord electricity complex The nervous system is made up of the brain, the spinal cord, and a large network of nerves that covers all parts of the body. The \_\_\_\_\_\_ is the centre of the human nervous system, controlling our thoughts, movements, memories and decisions. Our nervous system is the message centre of our body. Messages of the nervous system travel throughout the body using chemicals and to help the body function and stay safe. It is an amazing and network of cells that relay messages from all parts of our body to our brain. The brain and the \_\_\_\_\_ make up what is called the central nervous system. The rest of the nerves together are called the peripheral nervous system. Messages can travel in such a short span of time so that it is almost immediate. Parts of the Brain The Cerebrum: Frontal Lobe The Cerebrum: Parietal Personality, thinking, planning, Lobe Controls movement, problem solving. sensations (pain, taste, touch, etc.), speed and writing. The Cerebrum: Temporal The Cerebrum: Occipital Lobe Controls speech Lobe Controls memory, and hearing. sight and smell. The Brain Stem: Controls all The Cerebellum: Controls the automatic things, such as movement, balance and circulation. muscles. Spinal Cord: Links the brain to the rest of the body.



# Digestive System Functions

|                                |                                |                 | $\infty$        |
|--------------------------------|--------------------------------|-----------------|-----------------|
| Name of digestive system part: | Name of digestive system part: | Name of digesti | ve system part: |
| Function:                      | Function:                      | Function:       |                 |
| Name of digestive system part: | 5/2/                           | Name of digesti | ve system part: |
| Function:                      |                                | Function:       |                 |
| Name of digestive system part: | $\searrow$                     | Name of digesti | ve system part: |
| Function:                      |                                | Function:       |                 |
| Name of digestive system part: | 1                              | Name of digesti | ve system part: |
| Function:                      | STUD                           | Function:       |                 |
| Name of digestive system part: |                                | Name of digesti | ve system part: |
| Function:                      |                                | Function:       |                 |
| Name of digestive system part: | Name of digestive system part: | Name of digesti | ve system part: |
| Function:                      | Function:                      | Function:       |                 |



i Z Χ и α r n d h d d t α Z е r g k k t q С S С h b h b q Χ m е S α d k i С Z и ٧ n α е i d h h q α е α е W q n i i d i b g С m n g r h i k h t S u Х n n 0 е i t t S n S t n е α е i h S y y y r n Х k S р u n Х q р О b р α S q 0

heart intestines
lungs spleen bladder
liver stomach skin

kidneys brain

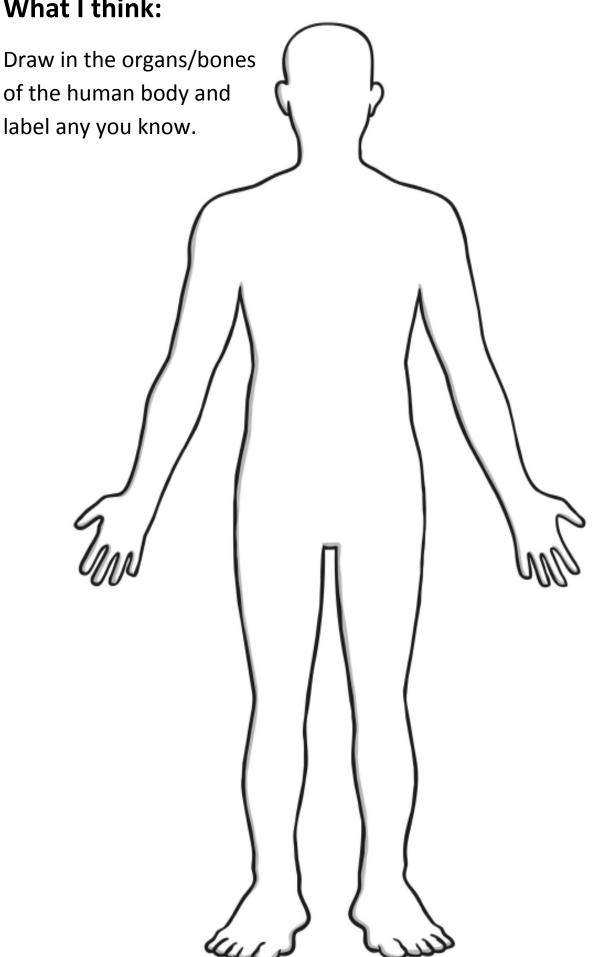
# Human Skeleton

h u u р р S m е r u S h i l k t α n S u i d t t t t y y Х 0 Ζ d b b j q α t е 0 V f k b y и S р е α S g i y е n r Ζ Χ С l t α е α С α α m r р b h k S е р 0 Х р i b S α 0 S S и е и t S Ζ y q С m m r α b n n и и α α t t Х е m 0 Х 0 r



Femur Tibia Skull Pelvis Patella Ribs Vertebrae Scapula Fibula Metacarpal Ulna humerus

### What I think:



#### What I know:

