

Chapter

1

# Bones and Muscles

New topic alert!  
How do you feel?



Excited



Nervous

## Learning Objectives

1. Describe the functions of bones and muscles
2. Understand the importance of good posture
3. Apply good habits to maintain bone and muscle health

## Focus on

- Bones
- Muscles
- Posture
- Caring for bones



## Warm Up

Some parts of our body are soft and some are hard. Let's find out!



Touch your forehead.  
Does it feel soft or hard?  
Tick (✓) your answer.

Soft

Hard

Why do you think so?  
Let's discuss it with the class.

## Bones

Bones are the hard parts of our body. Bones come in different shapes and sizes.

### ✦ Nifty Insight ✦

The strongest part of our body is our teeth, which are even tougher than our bones!

The bones in our body form a framework called the **skeleton**. The skeleton gives shape and support to our body. It also protects the soft parts inside our body from getting injured.

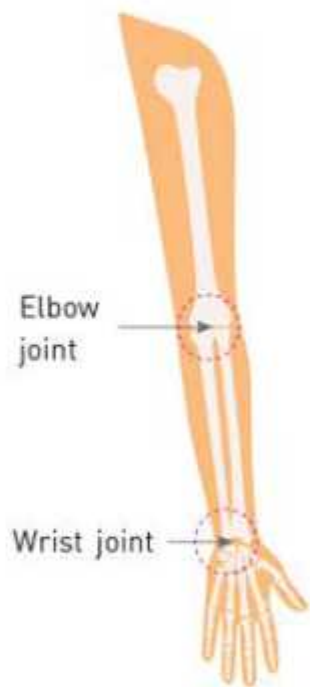


Skeleton



Knee joint

Knee joint



Elbow joint

Wrist joint

Joints in your hand

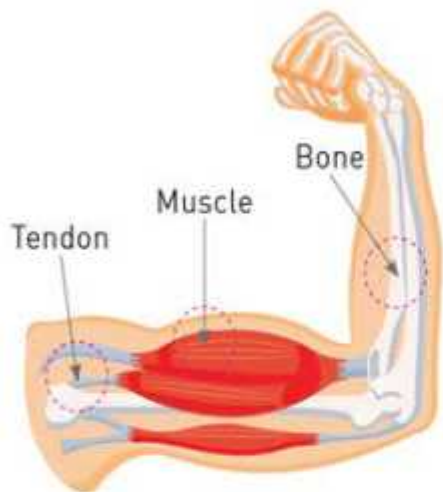
Scan Me!



The place where two or more bones meet is called a **joint**. Joints help us to move our body in different directions.

## Muscles

Can we touch our bones and joints directly? No, but we can feel them. They are covered by skin and muscles.



Muscles attached to the bones.

### ✦ Nifty Insight ✦

Muscles are attached to bones with the help of tendons. Tendons are like super-strong ropes that pull on our bones when we move.

Muscles cover all the bones of our body. They are attached to our bones. Bones and muscles work together to help us move, allowing us to hold things, walk, and run.

### Remember and Recall

Tick (✓) the correct statements and cross (X) the incorrect ones.

1. Bones are soft.
2. The muscles are attached to our bones.
3. The skeleton does not give shape to our body.
4. A joint is where two or more bones meet.
5. The strongest part of our body is our teeth.

## Posture

**Posture** is the way we hold our body when we sit, stand, or walk. Good posture keeps our body in the right shape and helps us feel confident. It prevents back pain and neck pain. Good posture also helps us stay balanced, so we do not fall easily.



Johan is sitting with a good posture.



Johan is sitting with a bad posture.



Robin is standing upright.



Robin is reading a book while lying on the bed.

## Try and Learn

Let's find out how good posture can help us feel better.

1. Stand upright and hold a tray with paper cup pyramid. Try walking straight without dropping the cups.
2. Now, bend your body forward and try walking straight with the tray again.



Was it easier to carry the tray while walking upright or when bending your body forward? \_\_\_\_\_



## Caring for Bones and Muscles

Bones and muscles are important for us. To keep our bones and muscles strong, we need to take good care of them.

**Regular exercise** helps keep our bones and muscles strong. Strong bones and muscles help us play, run, and stay active without getting too tired.



Exercise



Eat healthy foods

**Eating healthy food** also makes our bones and muscles strong. Dairy products like milk, cheese, and yoghurt have lots of calcium, which keeps our bones strong.

**Vitamin D** is also very important for bones and muscles health. It helps our body use calcium to make our bones strong. We can get vitamin D from foods and morning sunlight.

### ❖ Nifty Insight ❖

Morning sunlight can help activate vitamin D in our skin, which is called vitamin D3. So, it is good to sunbathe for 15 minutes between 9 to 11 a.m.

## Remember and Recall

Look at the pictures. Tick (✓) the activities that help your bones and muscles stay strong.

1.



2.



3.



4.



5.



### Teacher's Corner

Help students understand how bones and muscles work together to help us move. Introduce the concept of Joints. Make a paper skeleton to show how bones give our body shape and support. You can also explore how animals move and compare it to how we move. Make the learning more fun and easy to understand.



## Key Terms



- Bones** : the hard parts of our body that help us stand and protect soft parts inside our body
- Joint** : a place where two or more bones meet
- Muscles** : the soft parts of our body that cover our bones
- Posture** : the position in which we hold our body when standing or sitting
- Skeleton** : a frame of bones that give shape and support to our body

## Points to Reflect

- Bones are hard. They form a strong framework in our body called the skeleton.
- Muscles are soft. They work together with bones to help us move.
- Joints help us to move our body in different directions.
- Good posture keeps our body in the right shape and prevents back pain.
- Doing regular exercise and eating healthy food are necessary to keep the bones and muscles strong and healthy.





A. Cross (X) the correct answer.

1. What gives shape and support to the body?
  - a. Muscle
  - b. Skeleton
  - c. Exercise
2. The place where two or more bones meet is called a \_\_\_\_\_.
  - a. muscle
  - b. joint
  - c. skeleton
3. What helps keep the body in the right shape?
  - a. Good posture
  - b. Bad posture
  - c. Joint
4. Morning sunlight helps our skin make \_\_\_\_\_.
  - a. vitamin D3
  - b. calcium
  - c. sugar
5. Which part of the body is called a joint?
  - a.
  - b.
  - c.



B. Complete the names of the following pictures.

Integrated to English

1.



J \_ I \_ T

2.



M \_ S \_ L \_

3.



S \_ E \_ E \_ O N

C. Fill in the blanks with the correct words from the help box.

skeleton      straight      bones  
calcium      posture

1. Good \_\_\_\_\_ helps us feel confident.
2. Sitting up \_\_\_\_\_ is a part of good posture.
3. Foods that have a lot of \_\_\_\_\_ keep our bones strong.
4. The \_\_\_\_\_ protects the soft parts inside our body.
5. Muscles are attached to the \_\_\_\_\_.

D. Tick (✓) the good postures and cross (X) the bad postures.

Picture Based Analysis

1.



3.



2.



4.



**E. Answer the following questions.**

1. Why does drinking milk help make our bones strong?

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2. Why do we need to sit and stand upright?

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3. Can you lift a glass of water from the floor without bending your body forward, crouching, or lowering you back?

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**Life Skills and Subject Integration**

**F. Staying healthy is important. To keep the body healthy, you need to exercise. Playing outdoor games is a fun way to exercise. Write the names of three outdoor games that you like to play.**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_



## Think Green

Morning sunlight helps our skin make vitamin D3, which helps the body use calcium to keep the bones strong and healthy. We should keep our surroundings clean so we can enjoy the fresh air and sunshine.

