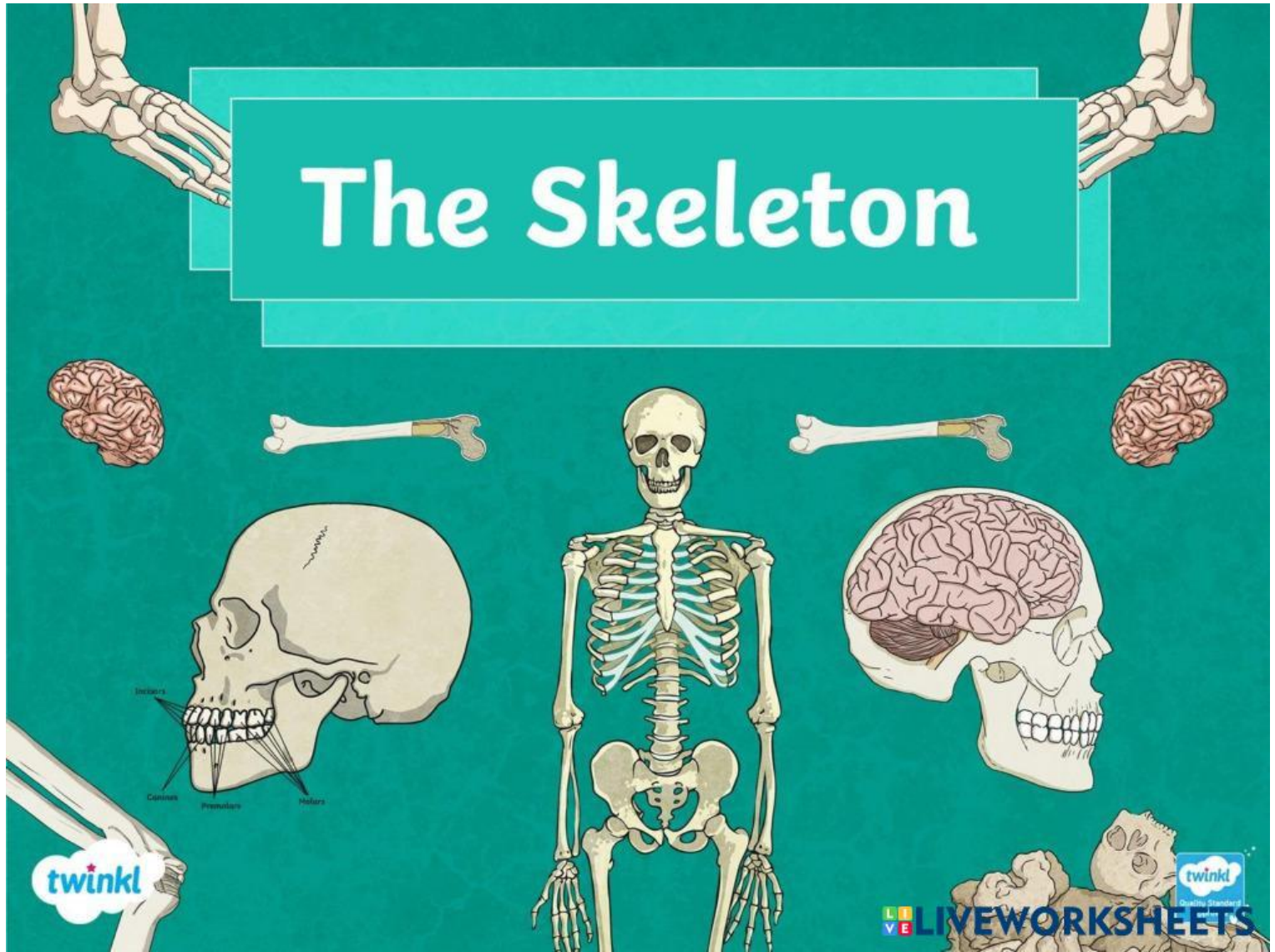


The Skeleton



Joints

A joint is where two bones meet. Without joints in our bodies we would not be able to run, jump or bend. Joints allow our body to move freely. There are many types of joints in our body. Here are some examples.



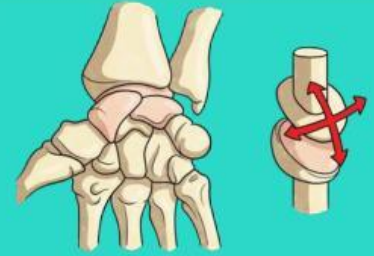
Ball-and-socket joints

These are where the **rounded end** of one bone fits into a socket-like area of another bone. These are located in your **shoulders and hips** and allow for rotational movement in many directions. **This joint allows the greatest movement.**



Hinge joints

These joints act similarly to a door hinge. These are found in places like your **elbows, knees, fingers, and toes**. They allow parts of the body to bend and straighten.



Gliding joints

These joints have a curved surface on one bone that fits into a concave surface on the other bone. These joints are found in the **knees, elbows, ankles, and in the fingers and toes**

Other information on Joints

- 1) When joints fall apart it is called a **dislocation**.
- 2) Joints let your body move, but two **immovable** parts of the body where joints are in the **skull** and some in the **pelvis**.
- 3) The fluid that lubricates or makes joints moist is called **synovial**.
- 4) There is no fluid in the immovable joints.

Ligaments

Ligaments are strong bands of tissue that connect bones to each other. They serve as a connection point for the bones and can be compared to strong rubber bands.

When you **sprain** your ankle or wrist, you have **injured the ligaments**.



Cartilage

Cartilage is a connective tissue which protects our joints and bones from rubbing off one another. Some cartilages do not have blood vessels or nerves so it can take a long time for cartilage to repair if it is damaged.

Some of a baby's bones are made up of cartilage and as they grow up the cartilage is slowly replaced by bone with the help of lots of calcium in their diet.

Can you think of any foods that have calcium?



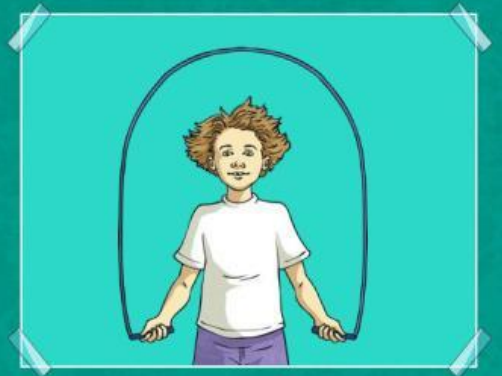
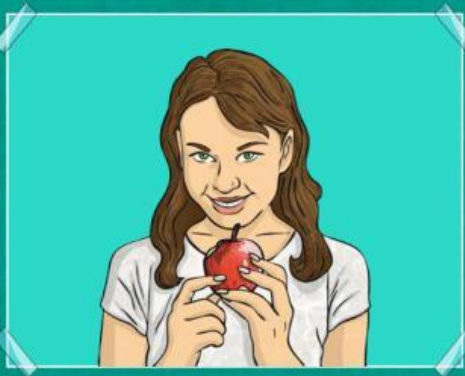
Taking care of our skeleton

It is very important that we keep our bones, joints, muscles and tissues strong and healthy as we grow up. Here are different ways to care for our skeleton.

Wearing a helmet when cycling will protect your skull.

Eating a healthy diet helps your bones grow strong.

Being active - exercise helps to strengthen your bones and joints.



What do joints, ligaments, and cartilage all have in common?

They are all types of connective tissue that support the skeletal system and help with movement!

EXERCISE

Answer the following on joints, cartilage, and taking care of our skeleton.

1. What are joints?
2. What are the function of joints?
3. Name three types of joints?
4. The diagram below shows the human skeleton at a joint. Where else in the human body would this type of joint be found?

A) Hip B) Knee C) Knuckle D) Wrist



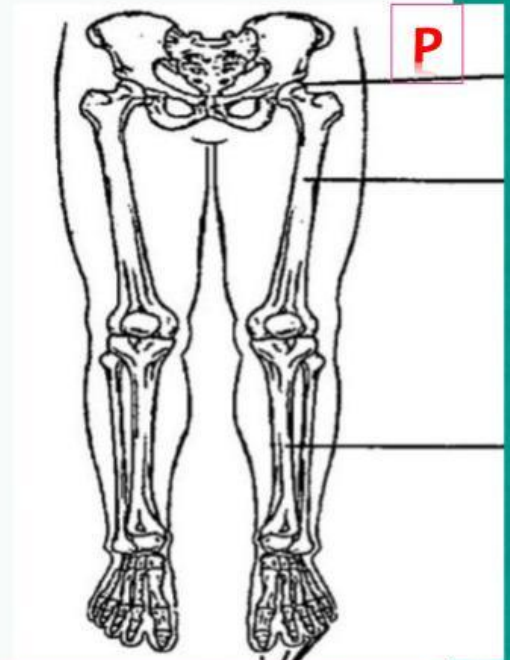
5. In which part of the body are there immovable joints?
- a) the ankle and wrists
 - b) the knee and the elbows
 - c) the lower jaw and the upper arm
 - d) the skull and the pelvis

6. Name joint **P** on the diagram.

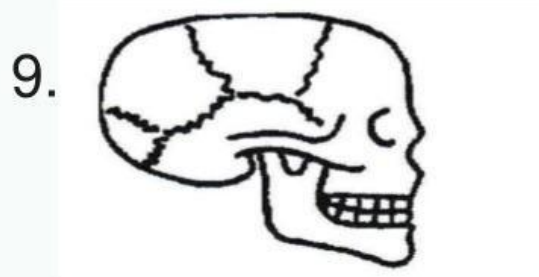
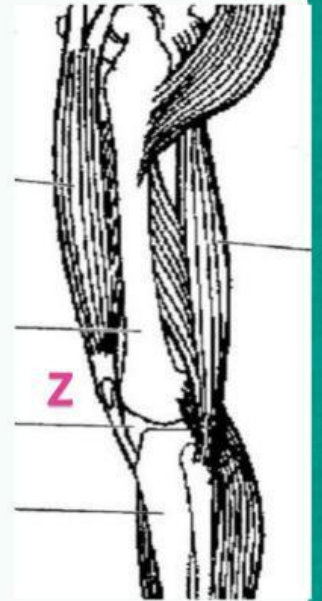
- a) shoulder joint
- b) fingers joint
- c) pelvis joint

7. Look at the joint P. Which is the name of the injury when the joints come apart?

- a) fracture
- b) dislocation
- c) sprain



8. Look at the diagram of the leg.
Write the name of the movable joint at **Z**.



Look at the diagram above. What type of joint is shown in the diagram.

- A) hinge joint
- b) immovable joint
- c) movable joint
- d) pivot joint

10. What is the function of the synovial fluid?

- a) To lubricate the joints in the skeleton.
- b) To cushion the fetus in the womb.
- c) To moisten the eyeball in the socket.
- d) To protect the brain in the skull.

11. If a person is said to have a sprain, what part of the joint will be damaged?

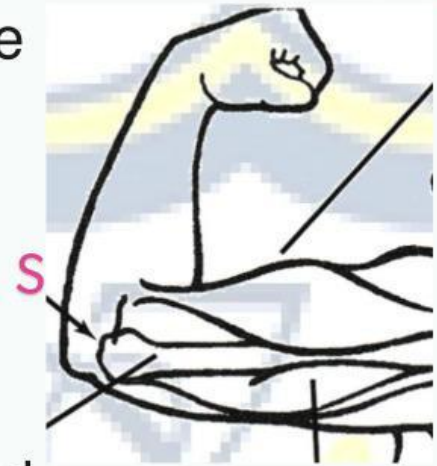
- a) cartilages b) joints c) ligaments d) tissues

12. Which joint allows for greater movement?

- a) ball and socket b) hinge c) gliding

13. What type of joint is at **S** in the diagram?

- a) ball and socket joint
- b) hinge joint
- c) gliding joint



14. What do joints, ligaments, and cartilage all have in common?

15. Tell one way how you can take care of your skeletal system.

