

Skeleton

KS3 Biology · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

State the four functions of the skeleton.

Step 1 · Think of what bones do for the whole body

They hold the body up (support) and guard soft organs (protection).

Step 2 · Think of muscles and blood

Muscles pull on bones to move us (movement), and marrow inside some bones makes blood cells.

Answer: Support, protection, movement, making blood cells

Check: Memory aid: 'Some People Make Bread' — Support, Protection, Movement, Blood cells.

2. Now try one with the steps

Which organs do the ribs protect, and why does the rib cage need to move?

Step 1 · Protection

Step 2 · Movement

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Name the bone that protects the brain. [1]

2. Which bones protect the heart and lungs? [1]

3. What is made in bone marrow? [1]

4. Name the longest bone in the human body. [1]

5. What does the spine (vertebral column) protect? [1]

6. What is a joint? [1]

7. What type of joint is the knee? [1]

8. What is the job of cartilage in a joint? [2]

9. What do ligaments do? [1]

10. An adult skeleton has 206 bones. A newborn baby has about 300. Suggest why the number goes down. [2]

11. Explain why the shoulder can move in more directions than the elbow. [2]

12. A person has 33 vertebrae. 7 are in the neck and 12 in the chest. How many are left for the lower back and below? [1]

13. Suggest why people with a disease of the bone marrow may get infections more easily. [2]

14. Explain why calcium and vitamin D in the diet are important for teenagers. [2]

4. Before you hand it in

"Bones are dead, like stones."

Bone is a living tissue that grows, repairs fractures and makes blood cells.

"Bones move themselves."

Muscles contract and pull on bones; joints let the bones move.

Mixing up ligaments and tendons.

Ligaments join bone to bone. Tendons join muscle to bone.