Тема №9. The Skeleton.

1. Read the text and translate it in *written form.*
2. Find the translation of the words in red (tendons,[Ligaments](http://en.wikipedia.org/wiki/Ligament), etc) from paragraphs 2,3,4,5.
3. Answer the questions.

There are 206 bones in the adult body which form its skeleton. The most important part of the skeleton is the backbone. It is so important that naturalists divided all animals into two classes – those which have a backbone and those which have none. All the higher animals have a backbone, or vertebral column and they are therefore called vertebrate animals. The others are called invertebrate animals. The bones which form the skeleton or bony framework of the body include the bones of the head, the bones of the trunk, the bones of the lower and upper limbs.

The skeleton has six main **functions:**

1. *Provide shape and support* : The skeleton provides the framework which supports the body, and maintains its shape. The joints between bones permit movement.
2. *Attachment* : The bones of the skeleton provide an attachment surface for muscles and [tendons](http://en.wikipedia.org/wiki/Tendons) which together enable movement of the body. [Ligaments](http://en.wikipedia.org/wiki/Ligament) often connect bones across a joint to provide stability. Microscopic fibres called Sharpie's fibres connect teeth to the bone of their sockets.
3. *Movement* : Movement in [vertebrates](http://en.wikipedia.org/wiki/Vertebrate) is dependent on the skeletal muscles, which are attached to the skeleton by [tendons](http://en.wikipedia.org/wiki/Tendon). Without the skeleton to give [leverage](http://en.wikipedia.org/wiki/Lever), movement would be greatly restricted.
4. *Protection* : The skeleton protects many vital [organs](http://en.wikipedia.org/wiki/Organ_%28anatomy%29): The skull protects the brain, the eyes, and the ears, the spine protects the spinal cord, the ribs, spine, and sternum protect the lungs and the heart, the clavicle and scapula protect the shoulder, the ilium and spine protect the digestive and urogenital systems and the hip, the patella and the ulna protect the elbow and the knee, and the carpals and tarsals protect the wrist and ankle.
5. *Blood cell production* : The skeleton is the site of [haematopoiesis](http://en.wikipedia.org/wiki/Haematopoiesis) – the generation of  [blood cells](http://en.wikipedia.org/wiki/Blood_cell), which takes place in red [bone marrow](http://en.wikipedia.org/wiki/Bone_marrow).
6. *Storage* : Bone also serves as a [mineral](http://en.wikipedia.org/wiki/Mineral) storage deposit in which nutrients can be stored and retrieved. [Calcium](http://en.wikipedia.org/wiki/Calcium), especially, can be released by [dissolution](http://en.wikipedia.org/wiki/Solvation) of bone tissue under the control of [1, 25-dihydroxyvitamin D3](http://en.wikipedia.org/wiki/Cholecalciferol) (a form of vitamin D) during periods of low calcium intake.
7. How many bones does the skeleton consist of?
8. What is the most important part of the body?
9. What classes do the naturalists divide all the animals into?
10. What are the functions of the skeleton?
11. What permits our movement?
12. How are teeth connected to the bone of their sockets?
13. What is movement in [vertebrates](http://en.wikipedia.org/wiki/Vertebrate) dependent on?
14. What bones protect the lungs and the heart?
15. What does the spinal canal contain?
16. Where does [haematopoiesis](http://en.wikipedia.org/wiki/Haematopoiesis) take place?
17. Why can a bone be called a mineral storage deposit?