

BOYS' HIGH SCHOOL AND COLLEGE, PRAYAGRAJ

ASSIGNMENT -> 15th April – 15th May
CLASS V
SUBJECT - SCIENCE
CHAPTER 2 – THE SKELETAL SYSTEM

INTRODUCTION

1. The Skeletal system supports the framework of bones and gives the body a definite shape. This is known as skeleton. It consists of the skull, backbone, ribcage and two pairs of limbs.
2. The skull is made of 22 bones, 8 form skull and 14 form face bones. It protects the brain.
3. The backbone or vertebral column is made up of 33 bones called vertebrae. It is present on the extreme back of our body. It encloses and protects the delicate spinal cord.
4. The ribcage is present in the chest and is made of 12 pairs of thin curved bones called ribs.
5. The human beings have four limbs-two forelimbs and two hind limbs. The upper arm has a single bone called humerus.
6. The lower limb consists of the largest bone in the upper part of the leg called femur or thigh bone.
7. The bones of the skeleton are filled with bone marrow.

8. A joint is the region where two or more bones meet. They are either movable or immovable. There are four types of movable joints. The bones of the skull are immovable except for the lower jaw.
9. The soft tissues present in our body are called muscles. There are over 600 muscles present in our body. The muscles are either voluntary or involuntary.
10. Exercise is to move the body parts to increase circulation of blood.

WORKSHEET-1

***Note- To be done in an interleaf note book [fair notebook]**

Part A. Answer the following Questions: -

Q1. Explain the Skeletal system?

A1. The Skeletal system is a system which supports the framework of bones in our body and gives it a particular and definite shape. The human skeleton consists of the skull, the backbone, the ribcage and two pairs of limbs.

Q2. What are the functions of the skull?

A2. The functions of the skull are: -

- 1) It covers and protects the brain
- 2) it gives shape to the face
- 3) It supports the teeth present in upper and lower jaw.

Q3. What is a girdle? State and explain its kinds?

A3. A bony ring like structure present in our body is called a girdle. There are two types of girdles present in our body:

- a) Shoulder girdle- It is made up of the collar bone and shoulder blade.
- b) Hip girdle- It is made up of three bones fused to form a single bone.

Q4. What are the functions of the Skeletal system?

A4. The functions of the skeletal system are: -

- a) Support- It provides support to the entire body.
- b) Protection- It protects the delicate internal organs like heart and brain.
- c) Movement- It helps in the movement of different parts of our body.
- d) Storage- The bones of the skeleton store minerals like calcium and phosphorous.
- e) Blood Cell Production- Bone marrow helps in production of red blood cells.

Q5. Differentiate between movable and immovable joints?

A5.

	MOVABLE JOINT	IMMOVABLE JOINT
1.	A synovial cavity is present	A synovial cavity is absent
2.	Movement can occur in these joints	No movement can occur in these joints
3.	It includes all joints except the bones of the skull.	It includes the bones of skull

Q6. What are voluntary and involuntary muscles?

A6. **Voluntary muscles** are those muscles whose movements can be controlled by us e.g.: muscles present in arms, legs, hands and feet.

Involuntary muscles are those muscles whose movements cannot be controlled by us and they work on their own. They are of two types-

- a} Smooth muscles e.g. muscles of stomach and intestine.
- b} Cardiac muscles- e.g. muscles of the heart.

Q7. What is cartilage? What is its function?

A7. The surface of the bones at joints have a particular type of connective tissue called cartilage. Cartilage protects the bones from wear and tear and increases the life of bones.

Q8. What are the benefits of exercise?

A8. The benefits of exercise are-

1. Exercise increases the supply of blood to the heart.
2. It burns extra fat and helps us to remain slim and smart.
3. It removes unwanted and waste material from our body in the form of sweat.
It increases the physical strength of the body.

Part B. Fill in the blanks: -

1. A bony ring like structure present in our body is called girdle
2. The hardest substance present in our body is enamel
3. Smooth muscles are present in our stomach
4. Joint present in knees and elbows are hinge joints

5. Bones are held together with the help of ligaments

Part C. Give one word for: -

1. The bony cage present in the chest region - **Ribcage**
2. A region in the human body where two or more bones meet- **Joint**
3. The largest bone in the upper part of the leg- **Femur**
4. The smallest bone present in our body in the ear- **Stirrup**
5. A type of connective tissue that connects muscles to bones- **Tendons**

Part D. Label the parts of the Skeletal system.

WORKSHEET 2

***Note- All Exercises to be done in notebook (fair notebook)**

Part A. Define: -

1. Floating Ribs
2. Bone Marrow
3. Vertebrae
4. Cardiac Muscles

Part B. Write True or False: -

1. The red blood cells are produced in the bone marrow
2. Voluntary muscles are not under our control
3. The bones of upper and lower arm join at elbow
4. Humerus bone is present in the lower limb
5. The skull is attached to the ribcage

Part C. Match the following: -

Column A	Column B
1. Pivotal Joint	A) Bones of Skull
2. Gliding Joint	B) At the base of the neck
3. Immovable Joint	C) Ankle Joint
4. Hinge Joint	D) Shoulder & hip Joint
5. Ball & Socket Joint	E) Least movable joint

Part D. Choose the right word: -

1. The shoulder girdle is made up of _____ bones (three/two)
2. Total number of bones present in the human body is _____ (206/246)
3. The pivot joint allows movement of _____. (head/knee)
4. The bones of the _____ jaw is movable. (upper/lower)
5. The long flat bone present in the center of the chest is _____ (sternum/stirrup)
