



**MAGNOLIA
LESSON PLAN
EVS-I**

A – Curriculum to Learning Objectives: My Body

Prior Knowledge		• <i>parts of the body and their functions, how to take care of different parts of the body</i>		
Class	L. No.	Lesson Name	L. Obj. No.	Learning Objectives
3	3	Organ Systems	3.a	• organs inside the body
			3.b	• different organ systems and their parts
			3.c	• the effect of daily activities on organ systems
			3.d	• the position of different organs inside the body
3	4	Skeletal System	4.a	• the skeletal system
			4.b	• the functions of the skeletal system
			4.c	• keeping our bones healthy
4	2	Digestive System	2.a	• digestion and the digestive system
			2.b	• the process of digestion
4	3	Excretory system	3.a	• excretion and the excretory system
			3.b	• the process of excretion
4	4	Diseases	4.a	• diseases and prevention
			4.b	• types of diseases
			4.c	• the prevention of various types of diseases
			4.d	• epidemics
5	1	Muscular System	1.a	• muscles and the muscular system
			1.b	• the functions of our muscles
			1.c	• keeping our muscles healthy
			1.d	• injuries related to muscles
5	2	Respiratory System	2.a	• respiration and the respiratory system
			2.b	• steps of respiration
			2.c	• breathing rate and how blowing air can warm up or cool down things
			2.d	• the importance of a stethoscope
5	3	Nervous System	3.a	• parts of the nervous system
			3.b	• working of the nervous system
			3.c	• role of our sense organs
			3.d	• how the brain works with closed eyes

B – Vision-to-Action Plan: 1 Muscular System

Period and Planned Date	TB Page No. and Key Competency	L. Obj. No.	Learning Outcome(s)	Teaching Strategies	Resources	Practice		Areas to Focus
						CW	HW	
1 DD/MM/YYYY	1, 2 – THK, REM	1.a	<ul style="list-style-type: none"> Define ‘muscles’ and ‘muscular system’ List the different types of muscles 	<ul style="list-style-type: none"> Real-life Connect 	<ul style="list-style-type: none"> chart ‘The Muscular System’ 	WB: Pg. 1 (Q. 1–4)	WB: Pg. 1 (Q. 5–7) Ask a learner to bring a balloon, sticky tape or string for the next class.	
2 DD/MM/YYYY	2 – UND	1.b	<ul style="list-style-type: none"> Demonstrate the spring-like action of muscles during movement 	<ul style="list-style-type: none"> Real-life Connect 	<ul style="list-style-type: none"> a balloon sticky tape or string 	–	–	
3 DD/MM/YYYY	3 – UND	1.b	<ul style="list-style-type: none"> Describe the functions of muscles 	<ul style="list-style-type: none"> Interactive Discussion 	–	WB: Pg. 2 (Q. 8–13)	WB: Pg. 2 (Q. 14)	
4 DD/MM/YYYY	3, 4 – APP, AF	1.c	<ul style="list-style-type: none"> Identify the practices that keep muscles healthy and strong 	<ul style="list-style-type: none"> Interactive Discussion 	–	WB: Pg. 3 (Q. 15, 16)	WB: Pg. 3 (Q. 17–19)	

Period and Planned Date	TB Page No. and Key Competency	L. Obj. No.	Learning Outcome(s)	Teaching Strategies	Resources	Practice		Areas to Focus
						CW	HW	
5 DD/MM/YYYY	4, 5 – HOTS	1.d	<ul style="list-style-type: none"> Discuss muscle injuries and their treatment methods 	<ul style="list-style-type: none"> Real-life Connect 	–	–	WB: Pg. 4 (Q. 20)	

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Lesson 1 Muscular System

Let Us Learn About

- muscles and the muscular system.
- the functions of our muscles.
- keeping our muscles healthy.
- injuries related to muscles.



Think

While playing *kabaddi* with friends, Raghav injured his hand. His mother took him to a doctor. After checking his hand, the doctor said that it was a muscle injury and not a fracture. Raghav wondered what a muscle is and how it looked. Do you know about muscles?



Remembering

Make a fist and fold your hand at the elbow. Touch your upper arm with your other hand. Can you feel a soft and spongy material inside? Now, while still touching it with your fingers, slowly unfold the arm. Can you feel some movement inside the upper arm?

These are **muscles**. Muscles are present all over our body. All the muscles together form an organ system called the **muscular system**.



the human muscular system



Important Words

Duration: 1 min

- Today: muscles, muscular system, skeletal muscle, smooth muscle, cardiac muscle

Transactional Tip(s)

Duration: 27 min



Real-life Connect:

- Read aloud the 'Think' section and ask learners about the term 'muscles'.
- Demonstrate the activity on pg. 1 of the textbook in the 'Remembering' section. Let the learners try out the activity. Ask the learners, "Can you feel a soft and spongy material inside? Can you feel some movement inside your upper arm?"
- Show the chart 'The Muscular System' and elaborate on muscles and the muscular system.
- Show the images of three types of muscles given on pg. 2 of the textbook. Use a tree diagram to describe the types of muscles and their features.

Class Pulse Check

Duration: 2 min



- 1) What are muscles?
- 2) Name the muscles that are found only in the heart.

According to the place where muscles are, they can be of three different types. They are:

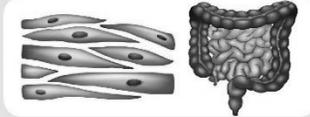
1

Skeletal muscles: These are muscles which are attached to the bones. They pull the bones to make movements of hands and legs. We can control these muscles.



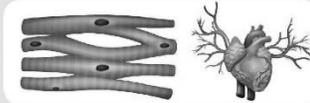
2

Smooth muscles: These are muscles on the walls of internal organs. For example, the muscles of the stomach, intestines and so on. They are not attached to the bones.



3

Heart (Cardiac) muscles: These muscles are found only in the heart.



Both the smooth and the heart muscles are not controlled by us. They work throughout the day on their own with the help of our brain.



Understanding

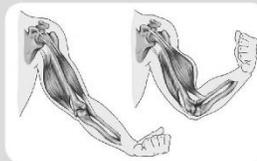
Why do we have muscles in our body?
The main function of the muscular system is the movement of different body parts.

Try this:

Make a fist. Tighten the fist. Then loosen the fist.
What do you feel?

We can feel the muscles moving. They help in movement by becoming **tight** and **loose** like a spring or a rubber band.

For example, to bend our hand, some muscles will become tight and some will become loose.



muscles becoming
loose and tight



Important Words

Duration: 1 min

- Last Class: muscles, muscular system, skeletal muscle, smooth muscle, cardiac muscle
- Today: fist, tighten, loosen, movement

Transactional Tip(s)

Duration: 27 min



Real-life Connect:

- Ask the learners, “Why do we have muscles in our body?”
- Guide the learners to perform the ‘Try this’ activity given on pg. 2 of the textbook.
- Show the image of ‘muscles becoming loose and tight’ given on pg. 2 of the textbook to explain the spring-like movement of muscles that help in body movements.
- Tie or attach a partially inflated balloon on the inside of the arm. Demonstrate by moving your arm to explain the tightening of the muscle by showing the compressed balloon. Explain that the muscle loosens when the arm is moved back by showing the inflated balloon.

Class Pulse Check

Duration: 2 min



- 1) How do muscles help in movements?
- 2) What is the main function of the muscular system?

Let us see some movements using muscles.

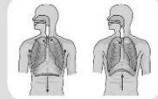
The muscles attached to the bones help in movements of hands, legs and so on. Example: walking, running, writing and so on



muscles help in movement

Heart muscles help the heart to pump blood.

Muscles around the lungs (the rib cage muscles and a dome-shaped muscle at the base of the chest cavity) help in breathing. When these muscles contract and relax, air flows in and out of the lungs.



muscles help to breathe

Did you know that your lips and tongue are made up of muscles too? These muscles help us while talking and eating.



lips and tongue are made of muscles

Muscles help us to maintain body posture. They help to keep us upright and erect.

Smooth muscles of the stomach and intestines help in the movement and digestion of food.



muscles help in digestion

Muscles also provide heat to our body. When we feel cold, our muscles vibrate rapidly to generate body heat. This is the reason why we shiver when we feel cold.



muscles vibrate in cold weather



Application

Muscles are an important part of our body, so they should be healthy. Healthy food and regular exercise make the muscles stronger and healthier.

We should follow these practices to keep our muscles healthy and strong:

- 1) **Warm up** → **exercise** → **cool down**: Exercise for 15–20 minutes every day. Warm up the different body parts with a brisk walk or a light jog before starting with exercise. After the exercise, let the body cool down slowly. Doing warm up before exercise prepares the body for the exercise. This is because the heart pumps more blood to the muscles. So, the chance of injury due to exercising is reduced.



brisk walk



light jog

Important Words

Duration: 1 min

- Last class: fist, tighten, loosen, movement
- Today: pump, rib cage muscles, dome-shaped muscles, chest cavity, contract, relax, smooth muscles, postures, upright, erect, vibrate, rapidly, generate, shiver

Transactional Tip(s)

Duration: 27 min



Interactive Discussion:

- Ask the learners about the functions of the body (breathing, eating, talking, etc.) and the organs involved in these functions. List them on the blackboard using a table.
- Elaborate on the fact that all these body functions are assisted by muscles. Show the images on pg. 3 of the textbook to explain the functions of muscles and the functions of the body. Explain the different types of internal and external body movements that muscles help to perform.

Class Pulse Check

Duration: 2 min



- 1) Which muscles help in breathing?
- 2) Which muscles help the heart to pump blood?



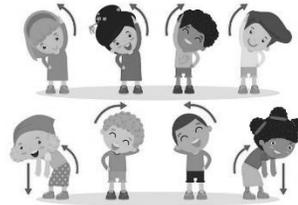
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- 2) Stretch:** Stretch all body parts every day. It improves the strength of muscles.
- 3) Drink a lot of water:** We should drink at least two litres of water every day. It keeps the muscles and other internal organs healthy.
- 4) Balanced diet:** Our food helps our muscles strengthen, repair themselves and function properly. It is important to include all the nutrients like minerals and vitamins in our diet.



stretching all parts of body



Amazing Facts

Our heart muscles never get to rest. They work non-stop till we die!



Higher Order Thinking Skills (H.O.T.S.)

We often hear of sportspersons getting injured. Do you know that most of their injuries are related to muscles? Let us learn about some common muscle injuries.

- 1) Strain:** When a muscle has stretched too much, it causes muscle strain. For example, if we lift something too heavy like a big bucket of water, we might strain our muscle. It also happens when a muscle is used too much without rest. The treatment for strain includes applying an ice pack to the affected area.



muscle strain in different parts of the body



ice pack on sprained leg

- 2) Cramp:** Sometimes a painful tightening of a muscle happens suddenly. This is a cramp. For example, if we play in warm or hot weather without drinking enough water, we get a cramp. It lasts from a few seconds to several minutes. It often occurs in the legs. Treatment for cramps is the massage of the affected area.



cramp in leg

Important Words

Duration: 1 min

- Last class: pump, rib cage muscles, dome-shaped muscles, chest cavity, contract, relax, smooth muscles, postures, upright, erect, vibrate, rapidly, generate, shiver
- Today: warm up, exercise, cool down, brisk walk, light jog, injury, stretch, balanced diet, strengthen

Transactional Tip(s)

Duration: 27 min

Interactive Discussion:



- Show the images on pg. 3 of the textbook.
- Ask the learners, "Why do people go for a walk or a jog?"
- Explain how different activities make our muscles strong.
- Ask the learners to stand in their places. Help them do some stretching or warm-up exercises that help to keep the muscles healthy and strong.
- Elaborate on the importance of drinking water and following a balanced diet plan.
- Read aloud the 'Amazing Facts' section. Recall the functions of the heart muscles. Describe why the heart muscles need to work non-stop.

Class Pulse Check

Duration: 2 min



- State one practice we should follow to keep our muscles healthy.
- Name one nutrient that should be included in our diet.



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3) **Bruises:** Bruises happen if our body hits any hard object. The area swells up. It forms a red mark that is painful, and movement becomes difficult. For example, when we fall from a bicycle or get hurt while playing football, we get bruises.

Children mostly get their knees and elbows bruised while playing. We should wash the bruise properly and put a bandage on it.

Do you know what a **hamstring injury** is? Find out.

(**Hint:** Hamstrings are a group of leg muscles.)



example of bruises while playing



bandage on bruises



hamstring muscles

Important Words

Duration: 1 min

- Last class: warm up, exercise, cool down, brisk walk, light jog, injury, stretch, balanced diet, strengthen
- Today: sportspersons, strain, muscle strain, treatment, ice pack, affected area, cramp, tightening, massage, bruises, object, bandage, hamstring injury

Transactional Tip(s)

Duration: 27 min



Real-life Connect:

- Ask the learners, “Have you ever felt a sudden pain in your legs while playing or while trying to lift something heavy? What did your parents or teacher do to help you get some relief? Have you ever heard or seen any sports person getting injured?”
- Show pictures of muscle injuries given on pg. 4, 5 of the textbook.
- Describe strain, cramp and bruises and the treatment options.
- Show the image of hamstring muscles on pg. 5 of the textbook and explain about the hamstring injury.

Class Pulse Check

Duration: 2 min



- 1) What is the cause of muscle strain?
- 2) What is a cramp?





C – Exit Assessment

	Suggested questions to test the learning objective(s)	Learning objective(s)	Number of learners who answered correctly
1	How many types of muscles are there? (Ans. three)	Period 1 - muscles and the muscular system	
2	Name the type of muscles that help in the movement and digestion of food. (Ans. smooth muscles)	Period 3 - the functions of our muscles	
3	Tell one benefit that muscles get from exercising. (Ans. exercise helps heart to pump more blood to the muscles)	Period 4 - keeping our muscles healthy	
4	What are hamstrings? (Ans. they are a group of leg muscles)	Period 5 - injuries related to muscles	

Post-lesson Reflection		Handhold Learners	Challenge Learners
TB completed Yes <input type="checkbox"/> No <input type="checkbox"/> WB completed Yes <input type="checkbox"/> No <input type="checkbox"/>			
Enthusiastic participation <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Concept clarity in the classroom <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Concept clarity through the workbook <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Names			
Exam Revision Strategy		Reteach <input type="checkbox"/>	Revise <input type="checkbox"/>
App Report		Practise <input type="checkbox"/>	
		Number _____	Signature _____