

Summary

Topic 1.2 - Muscular System

Subject	Year	Start date	Duration
Sports, exercise and health science	IB1, IB2	Week 3, September	2 weeks 3 hours

Course Part

Unit 1: Anatomy

Description

The musculoskeletal system is made up of the skeletal system which includes the bones and joints, and the muscular system which contains the muscles. When bones come together, they form joints. Muscles cross these joints and pull on the bones causing movement at the joints. Therefore, the musculoskeletal system plays a vital role in allowing you to do all the movements that are needed in daily life. To understand how bones and muscles are involved in sporting actions such as running, jumping up to spike a volleyball, kicking a football or throwing a javelin, it is important to know about the location and structure of specific muscles and bones, and to understand how they work together. This chapter will introduce these topics and will provide a basis for future chapters that also refer to the musculoskeletal system.

Inquiry & Purpose

Inquiry / Higher Order Questions

Type	Inquiry Questions
Content-based	How does the skeletal system and muscular system work together to enable the body to move and function during exercise and sport?

Curriculum

Aims

- Acquire a body of knowledge, methods and techniques that characterize science and technology
- Develop an ability to analyse, evaluate and synthesize scientific information
- Develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge

Objectives

Demonstrate knowledge and understanding of

- facts, concepts and terminology
- communicating scientific information

Apply

facts, concepts and terminology

methods of communicating scientific information

Syllabus Content

Core

Topic 1: Anatomy

1.2 The muscular system

1.2.1 Outline the general characteristics common to muscle tissue.

1.2.2 Distinguish between the different types of muscle.

1.2.3 Annotate the structure of skeletal muscle.

1.2.4 Define the terms origin and insertion of muscles.

1.2.5 Identify the location of skeletal muscles in various regions of the body.

ATL Skills

Approaches to Learning



Thinking

- In this unit, we will

ask students to formulate a reasoned argument to support their opinion or conclusion

give students time to think through their answers before asking them for a response

ask open questions

build on a specific prior task

IB DP Sports Exercise and Health Science (IB1)



Self-management

- In this unit, we will

set deadlines for students to meet

require students to revise and improve on work previously submitted

ask students to set their own learning goals

ask students to break down a larger task into specific steps

ask students to look for personal relevance in the subject matter

practise or discuss strategies to increase concentration

give students feedback on their approach to a task

model positive skills and behaviours such as being well organized and punctual

help students to learn from failures or mistakes

create an atmosphere where students do not think they have to get everything right first time



Developing IB Learners

☆ **Learner Profile**



Inquirers



Knowledgeable