



UNIT GRAPHIC ORGANIZER  
**SUBJECT: SCIENCE    UNIT: 4    COURSE: SEVENTH**

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**FECHA:** September 12<sup>TH</sup> / 2022

**Body's systems and feedback mechanisms**

**THROUGHLINES:**

Why do we sweat?  
 Why does our body suffer so many changes in puberty?  
 What happens if a child does too much exercising weights daily?  
 How are the bones repair when they break?

**GENERATIVE TOPIC**



**UNDERSTANDING GOALS:**

The student will understand the characteristics and functions of the muscular and skeletal systems of the human body and their relation with biophysics throughout schemes in order to analyze why a sporty life is important for our health.	The student will understand the feedback mechanisms and homeostasis processes that occur in the human body through drawings and charts to analyze why having healthy habits is important for our health.	The student will analyze the kinetic energy and gravity force involved in the movement of the human body by analyzing different body positions in sports in order to understand the mechanics of our body.
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	UNDERSTANDING PERFORMANCES	TIME	ASSESSMENT	
	ACTIONS		WAYS	CRITERIA
<b>Exploration Stage</b>	<p>To recognize the levels of organization that exist in the human body.</p> <p>To identify the main structures that compose the skeletal and muscular systems.</p> <p>To comprehend the main functions of skeletal and muscular systems</p>	<b>3 WEEKS</b>	<p>Extracting information from a video about the levels of organization that exist in the human body and create a mind map in the notebook.</p> <p>Identifying information from some pictures about the structures that compose the skeletal and muscular systems.</p> <p>Modeling the skeletal and muscular system with its main parts and functions using different materials in class.</p> <p><b>Synthesis Project: stage one</b></p> <p>Formation of groups of 5 students to be able to develop each phase of the project.</p> <p>Choosing a human system in order to create an interactive game for the class.</p>	<p>Searches for information in different sources choosing correctly.</p> <p>Identifies the language of science in a proper way.</p>

<b>Guided Stage</b>	To understand and represent the feedback mechanisms and homeostasis processes that take place inside of the human body.	<b>3 WEEKS</b>	<p>Watching a video in order to identify the main feedback mechanisms and homeostasis processes that take place inside the human body and create a comparative chart in class.</p> <p>Analyzing the feedback mechanisms that regulate the levels of carbohydrates and other important compounds in the human body using a virtual simulator "Body Control Center by PBS media online".</p> <p><b>Synthesis Project: stage two</b></p> <p>Designing a draft that explains the general dynamics of the chosen game, the role of each player, the development of the chosen theme, and the rules that the game will have.</p>	<p>Identifies variables that are related to the results of their experiments.</p> <p>Communicates its observations and conclusions throughout a science report</p>
<b>Learning Evidence</b>	To analyze and argue the influence of gravity and energy in the movement of muscles and bones in sports	<b>2 WEEKS</b>	<p><b>Synthesis project: stage three</b></p> <p>Elaboration and exhibition of the game in the fair where different students will try the game and will be able to win some prizes.</p>	<p>Proposes and argues answers to its own questions and compares them with its partners and scientific theories</p> <p>Communicates the results of their experiments using draws, schemes, charts, etc.</p>

