UNIT GRAPHIC ORGANIZER

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

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Body's systems and feedback mechanisms

THROUGHLINES:

How do our muscles work?
Why do we sweat?
What is a balanced diet?
Why should we practice physical activities?

GENERATIVE TOPIC

OUR BODY ROCKS!

UNDERSTANDING GOALS:

The student will understand the characteristics and functions of the muscular and skeletal systems of the human body and its relation with biophysics throughout schemes and drawing 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 throughout scheme, drawings and charts in order to analyze why a balanced diet 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 how the mechanics our body work.

	UNDERSTANDING PERFORMANCES	**TIME**	**ASSESSMENT**	
	ACTIONS		**WAYS**	**CRITERIA**
Exploration Stage	To recognize the levels of organization that exist in the human body. To recognize the main structures that compose the human body's skeletal and muscular systems	**2 WEEKS**	Extracting information from a video about the levels of organization that exist in the human body. Extracting information from a video about the structures that compose the human body's skeletal and muscular systems. Modeling a representation of the human body with its main systems and functions using the virtual tool SciGen Teacher Dashboard or clay in class	Searches for information in different sources choosing correctly. Identifies the language of science in a proper way.

	To recognize the principal functions of the human body's skeletal and muscular systems		**Synthesis Project: stage one** Creating a hypothesis about the implications of gravity and energy in the movement of muscles and bones in sports Searching for information about the influence of gravity and energy in the movement of muscles and bones in sports	
	Synthesis Project: stage one To identify the influence of gravity and energy in the movement of muscles and bones in sports		Presenting a report with the information about the influence of gravity and energy in the movement of muscles and bones in sports	

Guided Stage	To recognize and represent the principal feedback mechanisms and homeostasis processes that take place inside the human body.	**4 WEEKS**	Watching a documentary in class and presenting a workshop via Google forms or paper in class identify the principal feedback mechanisms and homeostasis processes that take place inside the human body Modeling the feedback mechanisms that regulate the levels of carbohydrates and other important compounds in the human body using the virtual tool Body Control Center by PBS media online. **Synthesis Project: stage two** Designing a daily routine that explains the influence of gravity and energy in the movement of muscles and bones in a sport or training Designing a daily routine that explains the influence of a balanced diet for a sport or training	Identifies variables that are related to the results of their experiments. Communicates its observations and conclusions throughout a science report
Learning Evidence	To analyze and argue the influence of gravity and energy in the movement of muscles and bones in sports	**2 WEEKS**	**Synthesis project: stage three** Creating a YouTube video in order to explain the results of their routines by using their own body and explaining the importance of sports for a healthy life.	Proposes and argues answers to its own questions and compares them with its partners and scientific theories Communicates the results of their experiments using draws, schemes, charts, etc.