PROFESOR: SEBASTIAN SOLIS – MAURICIO TENJO- ALBERTO VALERO   **FECHA**: APRIL 8 TH / 2021

Classification of organisms

THROUGHLINES:

Why are microorganism important for humans?
Where do bacteria live?
How can we see microbes?
Do I have organisms inside me?

GENERATIVE TOPIC

¡MICRORGANISMS IN THE HUMAN INDUSTRY!

UNDERSTANDING GOALS:

The student will recognize the basic features of taxonomy and cladograms in living organisms by constructing a dichotomous key in order to understand how scientist classify organisms.	the student will understand the characteristics and ecological roll of the Bacteria, Archaea, Protist and Fungi kingdoms using schemes charts and draws in order to recognize these organisms in their daily life	The student will analyze the industrial and health applications of microbes throughout the of a creation of datasheet in order to recognize the importance of these organisms for human development.

	UNDERSTANDING PERFORMANCES	TIME	ASSESSMENT	
	ACTIONS		**WAYS**	**CRITERIA**
Exploration Stage	To understand the dichotomous keys by using different groups of objects and communicating their knowledge in a report document. To recognize the main principles for the organization of living organism by scientist To identify the application of microbes in human industry.	**2 WEEKS**	Extracting information from a video about the usage of taxonomy to organize living organisms in science and present a recap with draws. Designing and analyzing dichotomous key using different groups of candies and presenting their results in a report document. **Syntesis Project: stage one** Creating a hypothesis about the usage of microbes in health, energy and food industries. Searching for information about the characteristics and application of different types of microbes in health, energy and food industries and presenting a report.	Searches for information in different sources choosing correctly. Identifies the language of science in a proper way.

Guided Stage	To recognize and represent the characteristics and ecological role of the Bacteria, Archea, Protista and Fungi kingdoms To model an ecological landscape that includes the Bacteria, Archea, Protista and Fungi kingdoms colors, markets and other materials	**4 WEEKS**	Recognizing the main characteristics and ecological role of bacteria, Archaea, Protist and fungi kingdoms by analyzing and extracting information from a virtual laboratory to finally present a report. Modeling an ecological landscape that includes the Bacteria, Archaea, Protista and Fungi kingdoms using colors, markets and other materials. Presenting a workshop about the main characteristics of each taxonomy group studied in class and present it to the teacher. **Syntesis Project: stage two** Constructing a datasheet inside the classroom with the main information about a microorganism including its characteristics, classification, etc to understand the role of microbes in human industries and presenting it to the teacher	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 importance of microbes in human industry.	**2 WEEKS**	**Syntesis project: stage three** Doing a presentation in order to explain the application of a type of microbes in human industries using schemes draws and charts.	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.