





Código: CA-02	CA-02 MALLA DE DESEMPEÑO Y SECUENCIA DE EXPERIENCIAS DE APRENDIZAJE Y EVALUACIÓN 2024	
Versión: 1		
Fecha de revisión: 24/03/2023		


PROJECT'S NAME: They're here and came to stay		
CLASS: Eleventh grade	CLASS: A-B	TEACHER/S: Santiago Pulido
<p style="text-align: center;">PERIOD I</p> <p>FROM: April 22th TO: August 9th</p>	<p>KEY SKILLS: Interacting with the natural environments through exploration exercises for analyzing and making a proposal to possible solutions using ICT tools.</p> <p>STANDARD KNOWLEDGES: Understands and predicts the chemical reactions involved in obtaining the different organic functional groups.</p>	
<p>WHICH ARE THE COMPREHENSIVE SKILLS WE WANT THE STUDENTS HAVE?</p> <p>Recognizing the differences between saturated, unsaturated and aromatic hydrocarbon reactions, representing them by equations.</p> <p>Anticipating results against chemical reactions of hydrocarbons.</p> <p>Relating the structure of carbon to the formation of organic molecules.</p>	<div style="text-align: center;">  <p>COMPETENCIAS</p> </div> <p>CB5: Aprender a aprender y metacognición</p> <p>WHAT TO LEARN FROM THE TERESIAN SKILLS?</p> <p>Conceptual: Aromatic compounds, alcohol, aldehyde, ketone, ether, carboxylic acids, amine, amide, ester, chemical reaction, solution</p>	<p>WHICH IS THE SCENERY OR PROBLEMATIC SITUATION?</p> <p>This year there is the second version of the Teresian Science congress, that's why we want to take another chance to keep promoting the essential and environmental values like, respect, austerity, solidarity, co-responsibility, empathy and coherence to be better living things and find some solutions to protect and take care of our planet from our own environmental relationship.</p>

Código: CA-02	CA-02 MALLA DE DESEMPEÑO Y SECUENCIA DE EXPERIENCIAS DE APRENDIZAJE Y EVALUACIÓN 2024	
Versión: 1		
Fecha de revisión: 24/03/2023		

	<p>Procedimental:</p> <p>Identifies the functional group in organic molecules as well as named with correct nomenclature.</p> <p>Understand the uses in daily life of the organic molecules and how it's relation with other molecules.</p> <p>Evaluate by laboratory activities the different chemical reactions generated by organic compounds depending on the functional groups presented in the molecules.</p> <p>Attitudinal: CB5 Demonstrates a positive attitude, respect, disposition and interest towards the comprehension and application of scientific principles.</p>	
STUDENT'S ROLE: Chemist		
<p>CHALLENGE: Have you ever asked what are the chemical components of a solution that it's used daily? Well, this term we're going to learn about the functional groups in organic chemistry, as well as their functions and how they react with other molecules. We will learn how to</p>	<p>PRODUCT: Scientific article about a product made in class.</p>	<p>PROMOTION: Science fair.</p>

Código: CA-02	CA-02 MALLA DE DESEMPEÑO Y SECUENCIA DE EXPERIENCIAS DE APRENDIZAJE Y EVALUACIÓN 2024	 COLEGIO TERESIANO BOGOTÁ <small>COMPAÑÍA DE SANTA TERESA DE JESÚS</small>
Versión: 1		
Fecha de revisión: 24/03/2023		

<p>identify them and what uses they can have for us. Be ready to learn new concepts and increase your understanding of some solutions and mixtures that are commonly used by humans.</p>			
LEARNING OUTCOMES			
SUPERIOR (S)	ACCURATE (A)	AVERAGE (B)	LOW (J)
<p>The student construct correctly organic molecules with functional groups, discovering their uses in daily life and in which compounds or mixtures they can be used, designing laboratory practices that improve their understanding of organic chemistry; actively participating during the development of the activities and promoting an environment of learning and respect with their colleagues during the writing of the article and carrying out the experiments.</p>	<p>The student explains by means representations of organic molecules that contain functional groups in a correct way, evaluating their use in daily life in solutions or mixtures, justifying through laboratory practices their understanding of organic chemistry; actively participating during the development of the activities and promoting an environment of learning and respect with their colleagues during the writing of the article and carrying out the experiments.</p>	<p>The student identifies the functional groups in an organic molecule, explaining their uses in daily life and in which compounds or mixtures they're present, reporting through laboratory practices their understanding of organic chemistry; participating in its realization and promoting an optimal environment of work during the writing of the article and carrying out the experiments.</p>	<p>The student shows difficulties identifying functional groups in organic molecules, as well as explaining their uses in daily life and in which compounds or mixtures they're present, with problems in laboratory activities that can demonstrate their understanding of organic chemistry; their participation in group work is low, which generates a less than optimal work environment for writing the article and carrying out the experiments.</p>

Código: CA-02	CA-02 MALLA DE DESEMPEÑO Y SECUENCIA DE EXPERIENCIAS DE APRENDIZAJE Y EVALUACIÓN 2024	
Versión: 1		
Fecha de revisión: 24/03/2023		

LEARNING EXPERIENCE

STAGE 1: The origin of the life


TIME OF EXECUTION: Cycle 1 to cycle 5

CRITERIUM: Analyze and evaluate different organic molecules that can be created from the union of some specific elements.

TASK 1:

Identify the functional group that is present in an organic molecule, understanding their usefulness in daily life.

- Based on the information provided by the teacher, the student will differentiate the functional groups in organic chemistry. Also, the student develops some exercises about aromatic compounds, naming them and constructing the molecules. **Cycle: 1 N° hours: 2**
- Based on the information provided by the teacher, the student constructs correctly organic molecules and names them taking into account the functional groups alcohol or aldehyde. **Cycle: 1 N° hours: 2**
- The student develops a workshop about the functional groups already studied. **Cycle: 2 N° hours: 2**
- Based on the information provided by the teacher, the student constructs correctly organic molecules and names them taking into account the functional groups ketone or ether. **Cycle: 2 N° hours: 2**
- The student solves a quiz constructing correctly organic molecules and naming them taking into account the functional groups alcohol, aldehyde, ketone, ether or if it's an aromatic molecule. Also, the student realize a workshop about organic molecules with ketone or ether. **Cycle: 3 N° hours: 2**
- Based on the information provided by the teacher, the student constructs correctly organic molecules and names them taking into account the functional groups carboxylic acids, solving the exercises proposed by the teacher. **Cycle: 3 N° hours: 2**
- Based on the information provided by the teacher, the student constructs correctly organic molecules and names them taking into account the functional groups amine or amide. **Cycle: 4 N° hours: 2**
- Based on the information provided by the teacher, the student constructs correctly organic molecules and names them taking into account the functional group ester. Also, the student develops a workshop about the functional groups amines, amides and ester. **Cycle: 4 N° hours: 2**
- The student continues working on the workshop that started the last class. After That, the student answers a quiz naming and constructing correctly molecules that contain the functional groups carboxylic acids, amine, amide and ester. **Cycle: 5 N° hours: 2**
- The student attends and takes notes of the main ideas from the speaker to develop an exercise provided by the teacher. **Cycle: 5 N° hours: 2**

Código: CA-02	CA-02 MALLA DE DESEMPEÑO Y SECUENCIA DE EXPERIENCIAS DE APRENDIZAJE Y EVALUACIÓN 2024	
Versión: 1		
Fecha de revisión: 24/03/2023		

STAGE 2: Breaking Bad

TIME OF EXECUTION: Cycle 6 to cycle 7

CRITERIUM: Applies the scientific method to develop laboratory activities following instructions in a controlled environment.

TASK:

Observe and discover how chemical compounds react between them to generate organic molecules that are necessary in daily life.

- The student makes a laboratory activity applying their knowledge of the different concepts already learned and that complement their ABP. **Cycle: 6 N° hours: 2**
- The student develops a laboratory activity applying their knowledge of the different concepts already learned and that complement their ABP. **Cycle: 6 N° hours: 2**
- The student makes a laboratory activity applying their knowledge of the different concepts already learned and that complement their ABP. **Cycle: 7 N° hours: 2**
- The student develops a laboratory activity applying their knowledge of the different concepts already learned and that complement their ABP. **Cycle: 7 N° hours: 2**

STAGE 3: The Origin of Longevity


TIME OF EXECUTION: Cycle 8

CRITERIUM: Synthesize a medicine that has to be tested in a controlled environment.

TASK:

Test and verify that the medicine realicing observations with the purpose of getting conclusions about it.

- The student develops a laboratory activity applying their knowledge of the different concepts already learned and that complement their ABP. The student applies the principle of conservation of energy and mass making some chemical reactions and registers their observations about the new substances obtained by the mix of substances. **Cycle: 8 N° hours: 2**
- The student develops a laboratory activity applying their knowledge of the different concepts already learned and that complement their ABP. The student applies the principle of conservation of energy and mass making some chemical reactions and registers their observations about the new substances obtained by the mix of substances. **Cycle: 8 N° hours: 2**
- Srucent

Código: CA-02	CA-02 MALLA DE DESEMPEÑO Y SECUENCIA DE EXPERIENCIAS DE APRENDIZAJE Y EVALUACIÓN 2024	 <p>COLEGIO TERESIANO BOGOTÁ COMPAÑÍA DE SANTA TERESA DE JESÚS</p>
Versión: 1		
Fecha de revisión: 24/03/2023		