



UNIT GRAPHIC ORGANIZER

SUBJECT: Science

UNIT: 4

COURSE: Second

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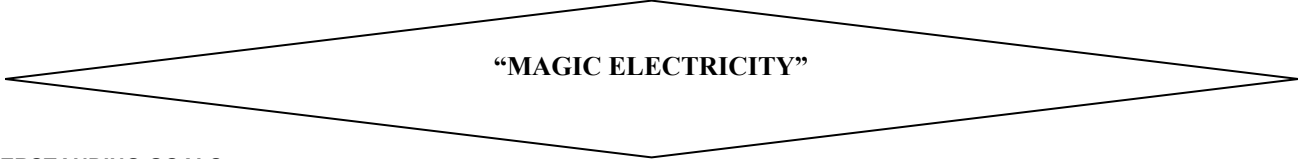
DATE: September 12th /2022

ELECTRICITY, SIMPLE CIRCUIT AND MAGNETISM.

THROUGHLINES:

What is inside of a battery?
 How can I create a circuit?
 How does electricity pass through the wires?
 Why I feel electricity when I throw in the park slide?

GENERATIVE TOPIC



UNDERSTANDING GOALS:

The students will understand what electricity is and the precautions we should have with it, through a case study to identify when we are in dangerous situations. It will be shown in the notebook and guide exercises.	The students will identify the type and characteristics of materials of a simple circuit through the construction and explanation of the functioning of an animal with a circuit, to comprehend that the electrical appliances in our home have circuits to work properly.	The students will explore how objects can be charged with static electricity; through experiments that simulate attraction and repulsion of particles, to comprehend some industrial processes that take advantage of the static electricity, like car painting or air cleaners.
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	UNDERSTANDING PERFORMANCES	WEEK S	ASSESSMENT	
	ACTIONS		WAYS	CRITERIA
Exploratio n Stage	1. To explain how can we take care with electricity 2. To explain how electricity is generated by several sources and transport to our homes. 3. To recognize objects into magnetic and non-magnetic. 4. To do a simple circuit.		1.1 Studying different cases about the precautions in the presence of electricity. Students will suggest what would they do in different situations. https://parenting.firstcry.com/articles/electrical-safety-for-kids-keep-your-child-away-from-shocks/ 2. Describing how electricity arrives at our homes, organizing the steps using pictures. 3. Doing simple magnetism experiments and developing a lab report # 1. https://www.youtube.com/watch?v=ViZNgU-Yt-Y https://www.youtube.com/watch?v=V7soAsGyfWQ 3.1 Testing materials to observe if they are repelled or attracted to magnets and developing the lab report # 2. 4. Making a simple circuit using a bulb, wire, and switch and developing the lab report # 3. 4.1 Making a Christmas light Cards through a simple circuit and developing the lab report # 4. https://www.youtube.com/watch?v=7hb-9eUpfbQ&t=137s) 5. Modelling a simple circuit using the next link https://www.brainpop.com/games/circuitconstructionkit/dc/ ADVANCE S.P: Choose an animal from the list of animals learnt in the English class, to formulate a question about circuits and electricity and investigate information about this animal.	-To compare different structures and processes, deduce similarities and differences between them. -To identify and use scientific language.

<p>Guided Stage</p>	<p>5. To recognize the components in a simple circuit. 6. To analyse graphics. 7. To understand circuits' symbols.</p>	<p>Weeks 3</p>	<p>1.2 Describing through an oral presentation the precautions and measures that we should have with electricity. 3.1 Predicting and checking which kind of materials can be conductors of insulators of electricity- 3.2 Comparing the Earth's magnetism with a magnet. 6. Creating a graphic about how much energy (measure in bulbs) do we use in each electrical appliance in our homes. 7. Analysing different pictures about possible simple circuits, explaining if they can work or no using symbols and real images. 7.1 Drawing with symbols the components of a simple circuit and create circuit diagrams using symbols.</p> <p>ADVANCE S.P: Creating an electric animal with the help of Robotic class, using simple circuit with led bulb and complete the lab report in where the steps include scientific method (question, hypothesis, writing, drawing observations and conclusions).</p>	<p>-Explaining different features. - To register observations in an organised way using drawings, words and numbers.</p>
<p>Learning Evidence</p>	<p>-To explain, how to create an animal robot. -To investigate information about animals and communicate this.</p>	<p>Weeks 2</p>	<p>"WELCOME TO THE WILD WORLD, THIS IS MY ANIMAL"</p> <p>Working with English Class, students will explain and show, how they will create an electric robot using a simple circuit with recycled materials. During the English Class they will describe and compare the characteristics of the animals, using the Animal Robot constructed in Science Class and Robotic. Students will explain their animals using the scientific method.</p>	<p>-Express ideas using scientific method. -Making real concepts. -Propose models to express ideas.</p>