



DEVELOPING STUDENTS' EXPERIMENTAL COMPETENCE USING THE STEM EDUCATION SYSTEM

(ON THE THEME "LEARNING TO MEASURE TOKEN SOURCES")

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Annotation:

STEM this — S – science, T – technology, E – engineering and M – mathematics. When we translate from English into English, this is how it happens: natural sciences, technology, engineering, art and mathematics. We need to realize that these trends are becoming the most popular in the modern world. On this basis, today the STEM education system is developing as one of the main trends.

Keywords: competence, experimentation, STEM, electrical chain, industry, element

The use of STEM education direction and practical approaches, as well as the integration of the top 5 areas into a single education system. How does the STEM approach affect educational efficiency? His main idea is that practice is as important as theoretical knowledge. That is, during study we need to work not only with our brains, but also with our hands. Learning only on the walls of the group is not in harness with a rapidly changing world. The main difference in the STEM approach is that students use both the brain and the hands to successfully study different subjects. They will learn the knowledge they have gained. STEM education is not only a teaching method, but also a way of thinking. At the same time STEM education aims to accomplish the following important tasks.

1. Development of an integrated process on specific areas and topics.
2. Developing critical thinking skills and solving problems in students.
3. Applying scientific and technical knowledge in real life.
4. Developing students' confidence in their abilities.
5. Active communication and teamwork.
6. Arousing interest in technical science.
7. Creative and innovative approach to new projects.
8. To prepare students for the development of innovations by enriching the modern technological knowledge of life.

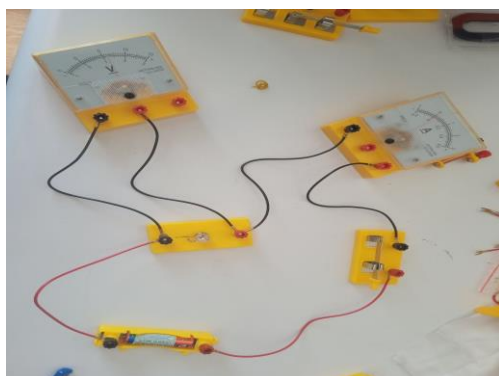




Students will do the following during the study of STEM teaching technology on the theme "Learning how to measure vine sources":

Purpose of the work: To study the measurement of land power and voltage in different parts of the chain.

Required equipment: 1.5Volted battery, ampermeter, voltmeter, connecting wires, key, bulb.



Theoretical Part

Usually before assembling an electrical chain, how its elements are positioned and their methods of connecting with each other are described in the drawing, and such drawings are called diagrams.

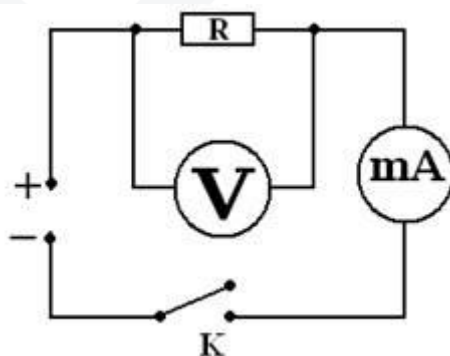
A chain consisting of a land source, a conductor, an electrical consumer, and a key is the simplest **electrical chain**.

The instrument measuring the power of the vine **is an ampermeter** and is connected sequentially to the chain.

The voltmeter tool **measures the voltage in the land source poles or in any part of the chain** and is connected parallel to the chain.

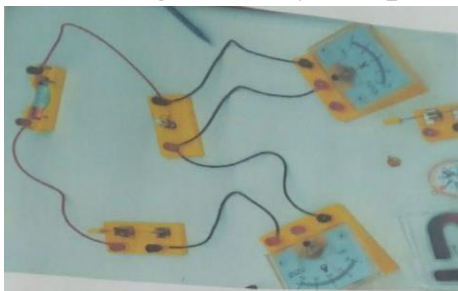
Layout Order

1. Draw a scheme before performing the exercise.





2. Collect a chain consisting of a voltage battery, ampermeter, voltmeter, bulb, key.



3. Connect the key. The bulb connected to the chain also burns, noting that it shows an ampermeter and a voltmeter.
4. Write their values into the table.
5. Draw conclusions based on the results of the experiment.

T/R	I(A)	U (V)
1		
2		
3		
4		

Conclusion:

During the course of this laboratory work, students will have both theoretical and practical information about the sources of the vine. They learn how to connect to land sources, learn how to get their values and measure the power and power of the land in different parts of the chain, and develop their experimental competence.

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