

: Teachers

: Parents and Caregivers of NS Tech Learners

Topic: Exploring electric circuits using virtual methods

Message Objective(s): To explore the PHeT Colorado DC circuits simulations.

: To carry out an activity on electric circuit diagrams using PHeT

In many cases, schools do not have the opportunity to enhance understanding electricity due to the lack of resources to perform experimental work. We will use the PheT simulation to explore electric circuits.

Please follow the instruction below together with the learner/s

1. Download the PheT simulation using the following link on any device.

https://phet.colorado.edu/en/simulation/circuit-construction-kit-dc-virtual-lab The device will show a blue screen as shown below.



2. Allow the learners to identify any components and symbols they might be familiar with

3. Drag the components from the far left to the blues space

4 Give the learners an opportunity to create their own circuits using the given symbols and observe what happens

ACTIVITY 1

Use two cells, two, bulbs, a switch, and wires in series to construct an electric circuit. What happens when the switch is closed?

Add one more cell to the circuit. What happens to the brightness of the bulbs?

This activity will inspire curiosity in our learners and a deep desire question and search for more knowledge.

Thank you From: Justine Mafukidze mafukidzej@nect.org.za

Reference:

https://www.wiley.com/network/societyleaders/research-impact/why-curiosity-and-wonder-are-critical-for-the-nextgeneration-of-scientists https://phet.colorado.edu/en/simulation/circuit-construction-kit-dc-virtual-lab









