



THE NILE EXPLORER BUS
STEM COMPONENT: INVESTIGATION & EXPERIMENTATION

DEMONSTRATION OF LIGHTING A LIGHT BULB



Two young learners lighting a light bulb during the STEM training of The Nile Explorer Bus

In this activity, young learners will experiment with batteries and light bulbs to learn about series and parallel circuits.

Category: STEM	Mode of Learning: Hands-on group activity	Age Group: 13-19 years old	Number of Learners Required: 3-15
Goals:	<ul style="list-style-type: none"> • Learners will be able to build a simple circuit • Learners will be able to see different types of circuits • Learners will practice teamwork • Learners will be able to use a voltmeter 		
Materials Needed:	<ul style="list-style-type: none"> • Electricity and magnetism lab kit • Instruction sheets 		
Time Duration: 1 Hour			
Duration: 5 minutes	Duration: 25 minutes	Duration: 25 minutes	Duration: 5 minutes
Instructor's activity: Group the learners in their working teams. Distribute the kits to the teams. Review the contents of the kit with learners.	Instructor's activity: Distribute instruction cards for learners to follow. Guide learners who are struggling to understand the instructions	Instructor's activity: Ask learners what elements were needed to make an electrical connection. Ask students to discuss the following: a) The length of time the light stayed on b) Why is this important and how do you think this affected society	Instructor's activity: Close the activity

		<p>when electric lights first came into existence? c) What do you think is needed to be achieved for using electric lights in the home?</p> <p>**Think about not only the elements needed to make lights, but also think about safety, practicality, and economics</p>	
<p>Learners' activity:</p> <p>Learners get in their groups Learners will receive kits and study the contents.</p>	<p>Learners' activity:</p> <p>Learners receive instruction cards/sheets. Learners will follow instructions on the instruction card to build their light bulb circuit.</p>	<p>Learners' activity:</p> <p>Learners will respond to the questions and discuss their thoughts with the instructor</p>	<p>Learners' activity:</p> <p>Learners will leave at leisure</p>