



**THE NILE EXPLORER BUS
STEM COMPONENT: TECHNOLOGY**

COMPUTER & THE INTERNET



Background Information

The **definition of technology** is science or knowledge put into practical use to solve problems or invent useful tools. Technology is all around us and visible in our everyday life operations. Technology takes on the form of different modern days tools ranging from computers, mobile phones, cameras, printers name it. In the modern world, STEM components are hardly a stand-alone. For instance, modern scientists: microbiologists, virologists require the use of computers to present information on health conditions following the scientific processes of culturing micro-organisms. Technology is the single most important cross-cutting element of STEM. Technology feeds into bringing science to life, programming of robotics, and even so computer games.

Focus: To introduce students to the usage of basic technology tools and demonstrate their application in everyday life.

What is a computer?

A computer is a machine that manages information, images, and sounds. The most commonly used computer is a PC (personal computer).

A laptop is a portable, smaller computer that can do the same things as a PC. A tablet computer is a one-piece mobile computer with a touch screen. The parts of the computer that you can see are called 'hardware'.

What does the Internet mean?

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks -- a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers).

Some specific examples of how the Internet is used include:

- Social media and content sharing

- E-mail and other forms of communication, such as Internet Relay Chat (IRC), Internet telephony, instant messaging, video conferencing
- education and self-improvement through access to online degree programs, courses

Activity:

DEMONSTRATION OF BASIC COMPUTING

In this activity, students will experiment with computers to learn how to interact with them so that they are introduced to the technology world and feel confident in using emerging technology.

Category: STEM	Mode of Learning: Hands-on group activity	Age Group: 13-19 years old	Number of Learners Required: 5-15 Computer to Student Ratio: 1:1, 1:2
Goals:	<ul style="list-style-type: none"> ● Learners will be able to turn a computer on and off ● Learners will be able to navigate a computer ● Learners will be able to type in MS Word 		
Materials Needed:	<ul style="list-style-type: none"> ● Computers and their chargers ● Steady Electricity supply 		
Time Duration: 30 minutes			
Duration: 5 minutes	Duration: 5 minutes	Duration: 15 minutes	Duration: 5 minutes

<p>Instructor's activity:</p> <p>Introduce learners to computers and how to start them</p> <p>Parts of a computer, keyboard, mouse, and screen</p>	<p>Instructor's activity:</p> <p>Guide learners to;</p> <p>a) Log into the computer</p> <p>b) Identify the start button</p> <p>c) Find the MS Word icon and click on it</p>	<p>Instructor's activity:</p> <p>Guide learners to type simple words and phrases as they are capable</p> <p>Teach learners how to change the letter cases</p> <p>Task learners to write a short story, essay, or passage.</p>	<p>Instructor's activity:</p> <p>Show learners how to save their work</p> <p>Show learners how to shut down the computers</p>
<p>Learners' Activity:</p> <p>Learners will connect their computers to a power supply</p> <p>Learners will find the start button on their computer and start the computers.</p>	<p>Learners' Activity:</p> <p>Learners will log into the computer, identify the start button and launch MS Word.</p>	<p>Learners' Activity:</p> <p>Learners will type a short passage of their choice</p>	<p>Learners' Activity:</p> <p>Learners will save their work in a specific folder and shut down the computer</p> <p>Learners will share their experience</p>

<p>More Things students will be able to do on the computer:</p>
<ol style="list-style-type: none"> 1. Learn a little bit about what computers can do and know the symbols on the screen 2. Learn how to use the mouse 3. Find your way around the keyboard 4. Learn about the Internet (Browsing) 5. Learn about something new from the internet. (Opening an email account)