Temporary Syllabus for Scholastic Year 2020/21 due to COVID-19 measures

Year 7

Syllabus

(2019)

HIGHLIGHTED AREAS HAVE BEEN REMOVED FROM THE SYLLABUS FOR SY 2020/21

Version 2.0

June 2019

Contents

Attainment Levels

	Level 3	Level 2	Level 1
1	Practise the basic safety rules and the correct use of a computer in a school lab.	Understand the basic safety rules and explain the correct use of a computer in a school lab.	List the basic lab safety rules and outline the correct use of computer in a school lab.
2	Practise full use of files and folders among other related skills.	Able to work with files and folders.	Recognise the difference between files and folders.
3	Able to use fully the features of browser and a word processor.	Able to use the basic features of a browser and a word processor.	Recognise the basic features associated with a browser and a word processor.
4	Illustrate the main structure of a computer and discuss different areas of computer use.	Understand the main structure of a computer and describe different areas of computer use.	Recall the main structure of a computer and list different areas of computer use.
5	Differentiate between hardware and software.	Identify hardware and software.	List hardware and software.
6	Differentiate between a device and a component.	Identify some devices and components.	List some devices and components.
7	Distinguish between the various types of alternative input devices in terms of use.	Identify between the various types of alternative input devices.	List some alternative input devices.
8	Distinguish between the various types of alternative output devices in terms of use.	Identify between the various types of alternative output devices.	List some alternative output devices.
9	Discuss the use of biometric devices.	Describe characteristics of biometric devices.	Identify basic biometric devices.
10	Explain the 3 programming constructs. Plan a flowchart, code the robot and test the solution.	Understand the 3 programming constructs. Plan a flowchart and code the robot.	List the 3 programming constructs: sequence, decision and iteration.

Basic Skills

1. I am able to outline the correct use of a computer in a school lab.
2. I am able to work with files and folders.
3. I am able to use a browser and a word-processor.

Topics to be covered /Skill Set	**Sub-topics**
1.1 Lab rules	No food/drinks in the lab. Take care of equipment. Switch on computers when the teacher says so. Switch computers on/off according to correct technique.
1.2 Routine how to switch the computer on and off properly	Start a computer Logon securely using login Logoff and shut-down the computer Restart the computer Concept of closing applications before shutting-down
1.3 Recognize different keys and their function (keyboard) and learn how to use them.	Including: Alphanumeric keys Backspace and Delete Shift, Caps Lock, tab, Enter, Space
1.4 Using the mouse	Clicking/double-clicking, dragging, selecting, hovering, difference between left and right buttons, scrolling.
2.1 Using Windows	Differentiate files from folders; Recognise common file types; Recognise common elements of the desktop (icons, shortcuts, bars, buttons); Renaming a file/folders; Use of File Explorer; Create a folder; Move / copy a file/ folder; Delete a file / folder; Change file and folder view (large icons, small icons, details, etc); View file / folder properties; Capture full screen.
3.1 Using a browser	Open browser, back and forward buttons, refresh page, accessing a webpage by typing the address in the address bar, use a search engine, save an image to a location on the computer.
3.2 Using a word-processor.	Knowing how to open a document, modify it and save it with a different name. Familiarizing with common buttons and functions (Bold, Italic, Underline, Alignment (left, center & right), different font type/size, font colour).

Computer Systems

4. I can explain what a computer is and its structure (input-processing-output and storage) and can list reasons why people need computers.
5. I can differentiate between hardware and software.
6. I can recognise a component from a device.
7. I can identify and distinguish between the various types of alternative input devices.
8. I can identify and distinguish between the various types of alternative output devices.
9. I can identify basic biometric devices.

Topics to be covered /Skill Set	**Sub-topics**
4.1 Use of computers	Mentioning areas like home-use, education, healthcare, office-use, industry, entertainment, sports, exploration and travel
4.2 A simple computer diagram	A simple block-diagram including input, processing, output and secondary storage sections including data-flow arrows.
4.3 Parts that make up a computer system	Examples of common input (keyboard, mouse, microphone, scanner, webcam, touchpad) output (monitor, printer, speakers) and storage devices (hard disk/SSD, pendrive, SD Card).
4.4 List different storage terminology	Bit-Byte-Kilobyte-Megabyte-Gigabyte-Terabyte
5.1 Differentiate between hardware and software	Difference between physical computer parts and computer programs.
6.1 Differentiate between device and component	Examples of devices like keyboard and monitor. Examples of components found in the system unit, like RAM, CPU, power supply and motherboards
7.1 Listing of alternative input devices	graphics tablet, joystick / joypad, game controllers), trackball, barcode reader, 3-D scanner.
8.1 Listing of alternative output devices	e.g. 3-D printers, holograms, augmented reality, plotters, CNC-laser, projector
9.1 Listing of common biometric devices	Fingerprint reader; retina scan; voice recognition

Coding

10. I am able to work in a team to code a robot that completes a simple task.

Topics to be covered /Skill Set	**Sub-topics**
10.1 Understand what a robot is	
10.2 Understand terms related to robotics programming	problem; instruction/command; instruction set; direction; speed; testing, debugging; sensors; algorithm; dry-running
10.3 Understand concepts of robotic programming (sequence, condition and iteration) and how these are used.	
10.4 Access and be familiar with the robot programming interface	
10.5 Use the robotic programming software to program the robot to perform a specific task	