

INFORMATION TECHNOLOGY

GRADE 8

Topic: Health and Safety

OBJECTIVES

Students will:

1. List at least three of the most common computer cable types
2. Demonstrate correct procedure when connecting and disconnecting peripheral devices
3. Demonstrate proper care and maintenance of computer equipment and accessories.
4. Discuss system requirements for software compatibility
5. Design a computer or electronic devices safety programme

Topic: Foundations of Hardware and Software

OBJECTIVES

Students will:

1. Define the term; input devices, output devices, data, processing, storage, input, output, storage device, storage media
2. Differentiate between Manual and Automated/Source Data Entry devices
3. Describe different input devices and their uses
4. Explain the relationship among hardware components in data processing
5. Discuss the role of the Central Processing Unit and its components
6. Compare the different units of storage
7. Differentiate between primary and secondary storage
8. Describe different storage media and their uses
9. Describe the concept of cloud computing and examine how it has impacted storage
10. Describe different output devices and their uses
11. Differentiate between Hardcopy and Softcopy
12. Discuss the functions of the different types of System Software
13. Outline the functions of the Operating System
14. Classify Application Software into their different categories

15. Use Word Processing software to move blocks of text, apply page layout and paragraph formatting features within documents.
16. Insert and manipulate tables using Word Processing software

Topic: Data Communication, Networking and Internet

OBJECTIVES

Students will:

1. Define terms: ISP, URL, IP address, bandwidth (broadband, voiceband, and narrowband), network domain, transfer rate, latency, computer network protocol
2. Contrast the two types of signals for transmitting data (analog and digital)
3. Differentiate among the three transmission modes (simplex, duplex and half duplex)
4. Evaluate the importance of all components required for successful data communication
5. Classify data communication transmission media based on their characteristics (transfer rate, wired or wireless)
6. Explain data communication protocols and their applications
7. Recommend a computer network protocol for use in a communication Process

Topic: Computer Binary

OBJECTIVES

Students will:

1. Explain the general principles related to the binary number system
2. Discuss how binary number system apply to computers and digital technology
3. Convert decimal numbers to binary and vice versa

Topic: Computer ethics and Research

OBJECTIVES

Students will:

1. Define the term netiquette
2. Evaluate scenarios to determine responsible/ethical practices
3. Identify Internet practices for which an individual is punishable by local laws
4. Recommend appropriate behaviours when using the Internet
5. Describe the role/function of at least three Jamaican organizations that are responsible for protecting the rights of content creators.

6. Apply advance search techniques for locating and selecting information on the World Wide Web
7. Evaluate information accessed on the World Wide Web using at least five criteria
8. Apply the MLA and APA style of references to cite information sourced from offline (such as CDs) and online (such as text, graphics, video, audio among others) resources

Topic: Computing Careers

OBJECTIVES

Students will:

1. Describe an Information Technology (IT) Department
2. Describe at least four services offered by an IT department
3. Identify at least four distinct computing jobs that aid in the delivery of the services offered by an IT Department
4. Examine the impact of trending Computing careers on traditional jobs

Topic: Multimedia Authoring

OBJECTIVES

Students will:

1. Describe the terms “Multimedia”, “Multimedia authoring”, “Multimedia authoring tools”
2. Trace the historical development of Multimedia
3. Investigate the advantages and disadvantages of using Multimedia
4. Recognize the use of Multimedia in various fields/space
5. Explain the elements of Multimedia (text, still images/graphics, audio, video, animation and interactivity)
6. Classify common file format associated with each Multimedia element
7. State at least two hardware devices and software used to capture each Multimedia element
8. Discuss legal and ethical issues and consequences involved in the reusing of person’s intellectual properties without proper acknowledgement or permission
9. Manipulate text, still images/graphics, audio and video using appropriate software
10. Produce simple multimedia products that integrates at least three multimedia elements

