

YEAR 9

COMPUTING



SRI KDU
International
School
SUBANG JAYA

PROGRAMME OF STUDY - TERM 1

TERM 1.1 NETWORKS

- Understanding Networks
 - Learn the basic principles and architecture of local and wide area networks (LAN and WAN).
 - Understand that the World Wide Web is part of the Internet.
- Web and IP Addresses
 - Learn how web addresses are constructed and stored as IP addresses using DNS.
- Data Transmission
 - Understand data transmission and different network topologies (e.g., star, mesh, bus).
 - Learn about network hardware (e.g., routers, switches).
- Network Planning
 - Plan the structure of a local area network (LAN).
- Network Types
 - Understand client-server and peer-to-peer networks.
 - Learn about cloud computing concepts.
- Data Security and Encryption
 - Explore ways of keeping data secure.
 - Learn simple encryption techniques.

TERM 1.2 HTML AND WEBSITE DEVELOPMENTN TO PYTHON

- Basics of HTML and CSS
 - Learn the fundamentals of HTML and CSS.
 - Create responsive designs that adapt to different screen sizes.
- Creating Web Content
 - Develop text styles and add text and graphics in specified positions on a page.
 - Create navigation links to internal and external web pages.
- Good Design Principles
 - Understand the basics of good web design.
 - Develop templates in a text editor (e.g., Notepad).
- Website Development
 - Decide on a topic and document the design for their websites.
 - Collect suitable text and images for the website.

- HTML Templates and Web Forms
 - Use HTML templates to create websites.
 - Create and implement a web form.
 - View data collected by the web form in a simulated database.
- Privacy of Data
 - Discuss the privacy of data collected through web forms.

ONGOING OBJECTIVES

(COMPUTING NATIONAL CURRICULUM)

- Design, Use, and Evaluate Computational Abstractions
 - Model real-world problems using network topologies and data transmission concepts.
 - Develop and evaluate web designs and HTML/CSS layouts.
- Understand Key Algorithms and Computational Thinking
 - Understand DNS and IP address algorithms for web address construction.
 - Use logical reasoning to compare network topologies and data transmission methods.
- Use Multiple Programming Languages
 - Learn HTML and CSS for web development.
 - Solve computational problems by designing responsive web pages and implementing web forms.
- Understand Simple Boolean Logic and Binary Operations
 - Apply Boolean logic to data security and encryption techniques within network security.
 - Understand the representation and manipulation of data in HTML and web forms.
- Hardware and Software Components
 - Understand network hardware (routers, switches) and their communication methods.
 - Learn about the software components involved in web development (e.g., text editors, web browsers).
- Instruction Execution and Data Representation
 - Understand how instructions for network communication are stored and executed.
 - Represent and manipulate data digitally using HTML and CSS.
- Creative Projects and Digital Artefacts
 - Undertake projects to create websites, combining HTML, CSS, and data collection techniques.
 - Develop and revise digital artefacts (websites) with attention to design and usability.
- Safe and Responsible Technology Use
 - Explore methods of keeping data secure in network setups.
 - Discuss privacy issues related to data collected through web forms and ensure responsible use of technology.