

# 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.