TENBY INTERNATIONAL SCHOOL SETIA ECOHILL | iSP International Schools Partnership

INFORMATION COMMUNICATION & TECHNOLOGY

Introduction

Our KS3 ICT curriculum focuses on developing learners' deep understanding of ICT and its purpose as a tool and be prepared for its ever-evolving dynamics. Whether that is learning to write a program; mastering creative tools and software; or developing an awareness of their digital persona. ICT will give learners the tools needed to succeed and thrive in a world that hasn't even been invented yet. Learners need to be given the opportunity to explore the world of Information and Communication Technology that surrounds them in their daily lives to develop their skills in the concepts of modern ICT to produce excellent examples of work that strive towards professional standards. KS3 ICT curriculum also focuses on developing the skills that the learners need, including communication skills (spoken and written) and provide a stimulus for further study to ensure that learners have had a very well rounded and complete experience of ICT whilst at KS3. As well as helping them choose the correct ICT path within their options, they will then leave with the fundamental skills needed to access and use modern technology from KS4 onwards.

Grading Breakdown	
Assessment	70%
Classwork	20%
Participation	10%

Year 7

Term 1	Topics: • Types and components of computer systems • Input and output devices • Storage devices and media	Scope: • Types and components of computer systems: • Define hardware as consisting of physical components of a computer system. • Identify internal and external hardware devices. • Define software and identify types of software. • Describe the characteristics of a personal/desktop computer and its uses, both as a standalone and networked computer. • Describe how emerging technologies are having an impact on everyday life. Input and output devices: • Identify input and output devices and their uses. • Describe the advantages and disadvantages of any of the input and output devices. • Describe direct data entry and associated devices and the advantages and disadvantages. • Storage devices and media: • Identify storage devices and their uses and the advantages and disadvantages.
Term 2	Topics: • Networks and effects of using them • The effects of using ICT	Scope: Networks and effects of using them: • Understand the use of other common network devices, including network interface cards, hubs, bridges, switches, modems. • Understand network issues and communication. • Describe the differences between a LAN, a WLAN and a WAN. Describe security issues regarding data transfer. • Can compare the use of fax and email and consider how they are similar and how they differ. The effects of using ICT: • Describe how there has been a reduction of employment in offices, as workers' jobs have been replaced by computers in a number of fields (e.g. payroll workers, typing pools, car production workers) and how there has been an increase in employment in other fields (e.g. website designers, computer programmers, delivery drivers in retail stores). • Describe how the use of computers has led to a number of employees changing their working patterns • Describe the positive and negative effects microprocessors have on aspects of lifestyle. • Describe potential health problems related to the prolonged use of IT equipment.

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Term 3	Topics: • ICT Applications • Systems Life Cycle	Scope: ICT Applications: • Describe a range of communication applications, the use of mobile phones for communication, VOIP and applications for publicity and corporate image publications. • Explain the difference between analogue data and digital data and the need. • Describe the role of a microprocessor or computer in control applications. • Describe the use of computer modelling in spreadsheets. • Discuss the advantages and disadvantages of using computer-controlled systems rather than humans. • Describe how systems can be used in manufacturing industries, retail industries, school's management, booking, banking, hospital/ medicine, library management, satellite, and expert. • Discuss the advantages and disadvantages of the applications. System Life Cycle: • Identify and describe methods of researching an existing system. • Identify, describe, and understand 6 phase of System development life cycle. (The needs and the methods of implementation)

How students are assessed

Students are assessed through summative assessments such as on-going tests, quizzes, and other graded course activities. Also, by any means students receive input and guiding feedback on their performance to help them improve sometimes face-to-face during lessons, in written comments on Teams assignments.

Year 8

Term 1	Topics: • Safety and security • Audience	Scope: Safety and security: • Describe common physical safety issues and what causes them, e.g. electrocution from spilling drinks, fire from sockets being overloaded or equipment overheating, tripping over trailing cables and some simple strategies for preventing these issues. • Understand what is meant by personal data and why personal data should be confidential and protected. • Describe the effective security of data, hacking, user id, biometrics. • Describe the security data online (phishing, spamming, pharming, cookies) • Explain Digital Certificate and SSL. • Describe the methods which can be used to help prevent phishing, pharming and smishing. Audience: • Show a clear sense of audience when planning and creating ICT solutions. • Explain why solutions must meet the needs of the audience. • Describe legal, moral, ethical, and cultural appreciation. Create ICT solutions that are responsive to and respectful of the needs of the audience.
Term 2	Topics: • Communication • File Management	Scope: • Communication • Describe how to communicate with other ICT users using email. • Describe the methods which can be used to help prevent spam. • Understand the effective use of the internet.

		File Management: • Identify different file types and their use/s, for example: css, csv, gif, htm, jpg, pdf, png, rtf, txt, zip. • Understand how to locate stored files, open, and import files of different types. • Understand how to save files using appropriate file names. • Explain why generic file formats are needed. • Explain the need to reduce file sizes for storage or transmission. • Identify where it will be necessary to reduce file sizes for storage or transmission.
Term 3	Topics: • Graphs and charts • Document production	Scope: Graphs and charts: • Understand how to produce a graph or chart from the given data. • Produce graphs and charts from given data. Document Production: • Use software tools to place and edit an image to meet the requirements of its intended application and audience. • Know when it is necessary to edit an image. • Use software tools to prepare a basic document to match the purpose and target audience. • Use software tools to use headers and footers appropriately within a range of software packages. • Explain why headers and footers are needed. Understand how to format text and organise page layout. • Use software tools to edit tables. • Produce mail merge a document with a data source.

How students are assessed

Students are assessed through summative assessments such as on-going tests, quizzes, and other graded course activities. Also, by any means students receive input and guiding feedback on their performance to help them improve sometimes face-to-face during lessons, in written comments on Teams assignments.

Year 9

Term 1	Topics: • Data Manipulation	Scope: Data Manipulation: • Understand how to create a database structure using an appropriate software tool (Ms Access). • Define the terms flat-file database and relational database. • Design and use suitable software tools to create an appropriate database record structure. • Design and use suitable software tools to create a data entry form appropriate to purpose and audience. • Understand manipulate data and use arithmetic operations or numeric functions to perform calculations within a database. • Use suitable software tools to produce reports to display data appropriate to purpose and audience.
Term 2	Topics: • Presentation • Data Analysis	Scope: Presentation: • Use a master slide to appropriately place objects and set suitable styles to meet the needs of the audience. • Use suitable software tools to create presentation slides to meet the needs of the audience. • Use suitable software tools to display the presentation in a variety of formats, including looped on-screen carousel, controlled presentation, presenter notes, audience notes considering the needs of the audience.

		Data Analysis: • Understand how to analyse data using an appropriate software tool (MS Excel). • Create and edit a data model. • Define the terms cells, rows, columns, sheets, tabs, pages, charts. • Understand how to edit the structure of an existing model. • Understand the order in which mathematical operations are performed and use brackets to make sure that formulae work. • Understand how to use functions, including sum, average, maximum, minimum, integer, rounding, counting, LOOKUP, VLOOKUP, HLOOKUP, IF and nested functions, when necessary. • Devise suitable test plans and test the data to demonstrate that the model works. • Identify suitable search tools in spreadsheet software to select subsets of data.
Term 3	Topics: • Website Authoring	Scope: Website Authoring: • Identify and describe the three web development layers. • Understand the function of content layer to enter the content and create the structure of a web page; presentation layer to display and format elements within a web page; behaviour layer to enter scripting language to elements within a web page. • Identify the appropriate software tools to create the content layer of a web page to meet the needs of the audience. • Identify the appropriate software tools to appropriately place the content in a web page. • Understand the use of style sheets. • Explain how to test and publish a website.

How students are assessed

Students are assessed through summative assessments such as on-going tests, quizzes, and other graded course activities. Also, by any means students receive input and guiding feedback on their performance to help them improve sometimes face-to-face during lessons, in written comments on Teams assignments.