

Key Stage 3 Curriculum Overview

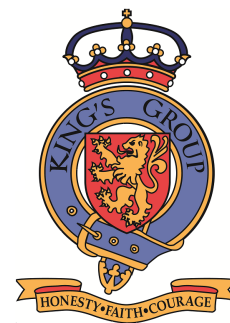
Computing and ICT

2022-23



King's College

The British School of Murcia



Year 7

Term 1 Computer Crime and Online Safety

Email scams

- Identify common types of computer crime
- Look at examples of computer crime on the Internet
- Learn about different types of email scam
- Recognise the signs of fraudulent emails

Computer misuse

- Learn about the Computer Misuse Act – which makes certain activities illegal
- Look at examples of computer misuse
- Understand what is meant by hacking
- Understand what is meant by malware
- Learn ways to protect yourself from malware
- and hacking

Protecting personal data

- Be aware of who might hold personal data about you
- Discuss the need for various organisations to hold data about you
- Be aware of the possibility of identity theft
- Know how to minimise the chance of identity theft

Copyright

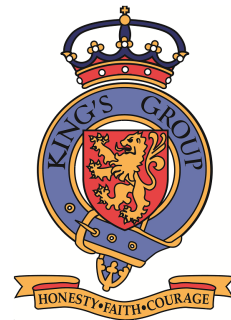
- Learn about Copyright law, what it says and what it means
- Look at examples of copyright infringement
- Understand the damage that illegal copying does to individuals, companies and society
- Compare copyright infringement with plagiarism



Health and safety

- **Learn about some of the common health and safety problems associated with computer use**
- **Learn ways of avoiding these problems**
- **Learn about Health and Safety law**
- **Learn about the need to dispose of computer equipment in a responsible manner**

Assessment Information: Topic assessments and end of Unit assessments are all computer-based



Year 8

TERM 1

Modelling in Small Basic

Introduction

- Explore the Small Basic environment
- Use Intellisense to type programs faster
- Learn how to write and run a simple Small Basic program involving input, output and variables

Calculations

- Understand what is meant by computer modelling
- Input and output numeric variables
- Perform calculations in Simple Basic
- Use mathematical functions (methods) in a program
- Learn how to generate random numbers within a given range

Selection

- Use Comparison operators =, >, <, >=, <=, <>
- Use Logical operators: And and Or
- Use selection statements to make decisions
- Understand what is meant by modelling; how, when and why it is used
- Understand the limitations of a model

Loops

- Use a While loop to repeat a section of code until a condition becomes false
- Use a For loop to repeat a section of code a given number of times
- Model a dice rolling experiment



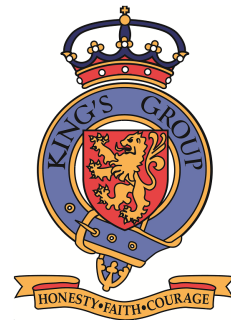
Using subroutines to build a model

- **To understand what is meant by a modular program**
- **To understand the concept of a subroutine**
- **To work out what subtasks are required in the Lemonade Stand model**
- **To construct a subroutine for each subtask**
- **To write a model incorporating the subroutines**

Evaluating the model

- **State the advantages of using subroutines to build up a long and complex program**
- **Suggest how the reliability of the model could be evaluated**
- **Suggest ways of improving the model**

Assessment: Coding exercises and Portfolio



Year 9

All resources are posted to the Google Classroom weekly

TERM 1

Using computers safely, effectively and responsibly

File management

- To learn the policy regarding school computer use
- To learn to manage files in File Explorer
- To learn some useful tips for using software packages
- To understand the importance of backup

Social networking

- Learn about the possible dangers of social networking sites
- Learn how to respond to threats on the Internet
- Learn how to keep your identity secure on the Internet

Keeping your data safe

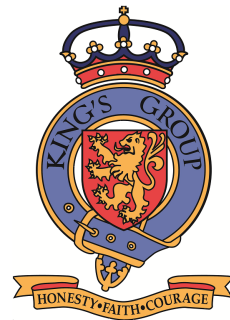
- Learn how to create a secure, memorable password
- Learn how to identify a phishing scam
- Learn how to avoid being a victim of an email scam

Using Email

- To learn how to
- send, respond to and forward emails
- search your old emails for a sender, subject, etc.
- Be aware of the advantages and disadvantages of email

Searching the Web

- Define the term “search engine” and name examples
- Learn techniques to use a search engine efficiently
- Appreciate that there is no guarantee that the information on the Internet is accurate



Assessment:

Topic assessments and end of Unit assessments are all computer-based

Careers Website Development

- Understand that the WWW is a huge collection of websites all over the world
- Learn what HTML is and what it is used for
- Type basic HTML tags using a text editor to create a page that can be viewed in a browser
- Edit the HTML code and view the changes in a browser

Design

- Complete website designs and gather content
- Use an HTML template to create consistent web pages
- Use float to position elements on a page

Development

- Learn how to create a consistent look and feel throughout a website
- Add well-formatted content, including text and images, to each page
- Create internal and external links and make sure they all work

Creating a web form

- Learn how to create a web form
- Learn what happens to the input data once it has been submitted

Assessment: Project Portfolio and discrete skills tests