

COMPUTING - BIG AIMS CURRICULUM PLANNING - YEAR 7

WHAT ARE THE BIG AIMS OF YEAR 7?

- To enable the scientific and practical study of computation: what can be computed, how to compute it, and how programs can be written to solve problems
- To develop student understanding about how computers and telecommunications equipment work, including storage and retrieval relating to cloud/email.
- To develop in students the ability to be efficient and critical users of technology
- To develop understanding about the risks associated with the use of technology and how to keep themselves/others safe
- To develop and extend students' subject/technical vocabulary
- To develop students' technical understanding and competence so that they are able to create a range of digital artefacts (blog, HTML, email messages) which are fit for audience and purpose. Additionally, to select, use, manipulate and evaluate software and systems.
- To inspire more girls to pursue computing and consider this as a potential future career route

WHAT WILL EXCELLENCE LOOK LIKE IN YEAR 7?

Students will demonstrate:

- secure foundation and understanding of basic programming constructs
- ability to offer sound advice re. minimising online risks to self/others
- ability to support peer learning to address misconceptions
- ability to debug simple syntax errors in own/peer programs
- the ability to work with greater independence when making an app
- competent use of technical language appropriate to their stage of learning
- signs of developing resilience
- curiosity beyond learning undertaken in the classroom

WHAT KNOWLEDGE DO THE PUPILS NEED TO ACQUIRE?

E-Safety & Online Communications: *Ethics, Law, Reasoning, Blogs, Email, Sense of Awareness, Fake News, digital footprint, evaluating (choices)*

Computational Thinking & Programming: *computational thinking, sequence, selection, variable*

Computer Hardware: *binary (purpose), purpose of computer hardware*

WHAT SKILLS DO THE PUPILS NEED TO DEVELOP?

- Debugging
- Programming

- Applying computational thinking methods to design algorithms and solve problems
- Analysing and predicting
- Information handling: finding, creating, judging, manipulating data and information
- Technical proficiency
- Fluent use of technical language

WHAT MISCONCEPTIONS MAY THEY HAVE FROM PREVIOUS LEARNING?

- that 'friends-of-friends' is a safe setting
- that online content can always be removed after sharing
- that everything they read online can be trusted/is reliable
- that online groomers are always 'adults' or 'male to female'
- that it is okay to share content/photos of others/friends without permission
- that 'no' online presence/profile is a 'good' thing
- the scratch app and programming is just 'making or playing games'
- that learning in IT/computing means 'always working on computers'
- that any content available online can be used without checking for permission first
- that the acceptable use policy only apply to school and don't have a place in the wider world
- that the misuse of email is not serious
- that copy and paste is an acceptable demonstration of learning