



Subject	Year	Term
Computer Science	7	1
Topic		
E-safety and Computational Thinking		
Content (Intent)		
Prior Learning (Topic)	None	
Staying safe on line, including the protection of identity and what to do when threatened on-line by cyber bullies. Computers and basic computational concepts from the origin of computers to modern encryption techniques. Students will learn about the use of binary in images, sound and text, how they are transmitted, how they can be encrypted.		
Future Learning (Topic)	Scratch	
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
Logging onto the network, E-safety, ensuring students stay safe on-line and know what to do in circumstances where they are bullied, or feel uncomfortable.	Students will be given regular homework's based on the work they do in class. These will be marked and graded based on a mark scheme that gives guidance about levels from 1 to greater than 5.	
Computational thinking. Origins of computer in Bletchley Park, why binary is important in computers, the ASCII table and binary, run length encoding for images, lines of executable code and the importance of order of execution, encryption using the Caesar cipher and the Mary Queen of Scots cipher. Introduction to text-based programming.	Students will be given regular homework's based on the work they do in class. These will be marked and graded based on a mark scheme that gives guidance about levels from 1 to greater than 5.	
How can parents help at home?		
Ensure homework is completed		
Helpful further reading/discussion (including Reading and Vocabulary Lists)		
Reading	Vocabulary Lists	
Esafety	Safety	Binary
https://www.bbc.com/bitesize/guides/zrtrd2p/revision/1	Cyber bullying	Device
Computational thinking	ASCII	External
https://csunplugged.org/en/	Run length encoding	Transfer