Year / Topic	Term	National Curriculum Links	Length of Topic
8.4 E-Safety and Computational Thinking	Spring 2	CS3.2, DL 3.2	5 Weeks

Resources Internet Explorer School Network Microsoft Word Post-its Building Materials Items to sort Blu Tac **Target Skills** Collaboration Research Online Safety Computational Thinking Skills **Curriculum Links** SMSC – Online safety. Maths – Sorting algorithms, reasoning. **E-Safety Coverage** Consider the importance of keeping personal information, including names of people private. Consider copyright when sourcing images.	**Key Classroom ICT Activity** Students will look at a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their own online identity. They will then look at using computational thinking to break problems down into smaller parts in order to find a solution, using logical reasoning to compare the utility of alternative algorithms for the same problem. They will also discover when sorting algorithms are needed, and how they work. By the end of the topic students will be able to: - Understand the dangers of sexting and know where to get help or advice regarding sexting. - Break down a large problem into smaller tasks, understanding how decomposition is part of computational thinking. - Understand that there are a number of different sorting algorithms and describe how bubble sorting algorithms work. **Assessment - Progression Pathways** All children should – *DL, Demonstrates responsible use of technologies and knows a ranges of ways to report concerns. CS, Designs solutions by decomposing a problem,. Recognising that different solutions exist for the same problem.* Most children should – *DL, Recognises ethical issues surrounding the application of information technology beyond school.* Some children should - *CS, Recognises where information can be filtered out, using logical reasoning to explain how an algorithm works.*

Assessment Criteria	8.4 E-Safety & Computational Thinking
Emerging	✓ I can demonstrate a responsible use of technology. ✓ I can show knowledge of a range of ways to report concerns. ✓ I can recognise that different solutions exist for the same problem.
Developing	✓ I can recognise ethical issues surrounding the use of IT beyond school. ✓ I can understand what is meant by sexting. ✓ I can understand what is meant by selfies. ✓ I can understand what decomposition is.
Secure	✓ I can understand the consequences of sexting and selfies and how to deal with these. ✓ I can show knowledge of and use of decomposition. ✓ I can explain sorting algorithms: bubble, bucket and insertion.
Mastered	✓ I can recognise where information can be filtered out. ✓ I can use logical reasoning to explain how an algorithm works.