Subject	Year 7 Threshold Knowledge – Autumn/Spring/Summer term	How to support students' learning		
IT	<ol> <li>Autumn Term Getting started -         <ol> <li>Know the processes for logging into the school's network.</li> <li>Know the processes for sending and receiving emails.</li> <li>Log into the school's network proficiently.</li> <li>Send and receive emails successfully, using appropriate language and content.</li> <li>Know how to save, rename and organise files.</li> <li>Organise files and folders to facilitate ease of access and use.</li> <li>Know how to access files stored in the cloud.</li> <li>Demonstrate proficiency in using the school's network and computing facilities.</li> <li>Know and use key principles of internet safety.</li> <li>Demonstrate safe practices when using the Internet.</li> <li>Understand what a digital footprint is and how to minimise its impact.</li> <li>Identify situations involving cyberbullying.</li> <li>Confidently know how to deal with cyberbullying situations.</li> <li>Know the purpose of a VLE platform.</li> <li>Understand the basics of a computer system.</li> <li>Understand the basics of a computer</li> <li>Understand the computer</li> <li>Understand the computer</li> <li>Understand the computer</li> <li>Understand</li></ol></li></ol>	<ul> <li>Ask your son/daughter to independently login to Office 365/MS Teams frequently to ensure their login details are accurate and to demonstrate self-reliance.</li> <li>Independently update their passwords at least every term to keep them secure and private.</li> <li>Discuss privacy settings on accounts and apps, to help your child understand the importance of protecting their identity and data online.</li> <li>Use the BBC Bitesize website section on eSafety:         <ul> <li>https://www.bbc.co.uk/bitesize/guides/zrtr d2p/revision/3 to review knowledge and complete the fun quizzes.</li> </ul> </li> <li>Assist students in creating their own spreadsheets for budgeting their pocket money, or logging their sports teams achievements, practicing the different formulas, functions and formatting skills learnt. Students have a copy of the textbook pages with examples to help support them.</li> <li>Use the BBC Bitesize website section on spreadsheets:         <ul> <li>https://www.bbc.co.uk/bitesize/guides/zdyd mp3/revision/1</li> </ul> </li> </ul>		
	<ul> <li>Digital Citizenship -</li> <li>16. Understand the different types of social media platform and its features.</li> <li>17. Identify the risks associated with using a social media platform.</li> <li>18. Know what is meant by fake news and why people publish it.</li> <li>19. Understand a number of ways in which you can spot fake news.</li> <li>20. Know what is meant by phishing and</li> </ul>	<ul> <li>Useful information and videos to explain different aspects of digital citizenship:         <ul> <li>https://mediasmarts.ca/digital-media-literacy/general-information/digital-media-literacy-fundamentals/what-digital-citizenship</li> </ul> </li> <li>Additional advice on being safe on social medias:         <ul> <li>https://www.ncsc.gov.uk/guidance/social-</li> </ul> </li> </ul>		

media-how-to-use-it-safely

Additional advice on fake news:

e-news-and-misinformation-advice-

https://www.internetmatters.org/issues/fak

20. Know what is meant by phishing and

21. Identify an online scam and how it can

present themselves in different

online scams.

formats.

- 22. Identify the measures that can be put in place to avoid becoming a victim of an online scam.
- 23. Identify suitable questions and assets for use in an interactive quiz, storing in an appropriate folder for later use.
- 24. Define a house style by creating a consistent look to the interactive quiz.
- 25. Successfully create and export an interactive quiz about digital citizenship.

## Spring Term Scratch Skills -

- 26. Compare how humans and computers understand instructions (understand and carry out).
- 27. Define a sequence as instructions performed in order, with each executed in turn.
- 28. Define a variable as a name that refers to data being stored by the computer.
- 29. Recognise that computers follow the control flow of input/process/output.
- 30. Predict the outcome of a simple sequence that includes variables and trace the values of variables within a sequence.
- 31. Define a condition as an expression that will be evaluated as either true or false.
- 32. Identify where selection statements can be used in a program.
- 33. Modify a program to include selection.
- 34. Create conditions that use comparison operators (>,<,=).
- 35. Identify where selection statements can be used in a program that include comparison (>,<,=) and logical operators (AND,OR,NOT).
- 36. Define iteration as a group of instructions that are repeatedly executed.
- 37. Identify and implement where count-controlled iteration can be used in a program.
- 38. Detect and correct errors in a program (debugging).
- 39. Know how to design programs in Scratch to solve specific problems.

- <u>hub/learn-about-fake-news-to-support-</u>children/
- Additional advice on online scams: <a href="https://abilitynet.org.uk/factsheets/internet-scams-and-how-avoid-them">https://abilitynet.org.uk/factsheets/internet-scams-and-how-avoid-them</a>

- Encourage your child to practice Scratch programming skills using: https://scratch.mit.edu/ideas
- Use the BBC Bitesize information to reinforce learning on sequencing in this topic: <a href="https://www.bbc.co.uk/bitesize/guides/zsf8d">https://www.bbc.co.uk/bitesize/guides/zsf8d</a>
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- Use the BBC Bitesize information to reinforce learning on selection in this topic: <a href="https://www.bbc.co.uk/bitesize/guides/zy3q">https://www.bbc.co.uk/bitesize/guides/zy3q</a>
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- Use the BBC Bitesize information to reinforce learning on Iteration in this topic: <a href="https://www.bbc.co.uk/bitesize/guides/zg46">https://www.bbc.co.uk/bitesize/guides/zg46</a> tfr/revision/1

- 40. Independently design and apply programming constructs to solve a problem (subroutine, selection, count-controlled iteration, operators, and variables).
- 41. Understand the purpose of Scratch software.
- 42. Scratch Project Understand how variables can change as a program runs.
- 43. Plan an effective virtual pet game.
- 44. Identify the features of the game design.
- 45. Create a range of sprites using appropriate software tools.
- 46. Apply basic learnt skills independently to create a virtual pet game.
- 47. Apply a range of skills to create a user-friendly virtual pet game.
- 48. Use a range of costumes for a character within the game.
- 49. Create a range of suitable variables.
- 50. Add audio to the virtual pet game to make it more effective.
- 51. Use effectively a range of programming constructs from taught skills e.g. subroutines, broadcast.
- 52. Research existing virtual pet games effectively to identify suitability.
- 53. Recognise how to create a program suitable for a target audience.
- 54. Know how to test own game and to self-reflect on improvements.
- 55. Effectively test a virtual pet game and provide suitable feedback comments to a peer.

## **Summer Term**

## Spreadsheets -

- 56. Write basic formulae in a spreadsheet.
- 57. Use a range of basic formulae to manipulate data.
- 58. Understand the concept of replication and the uses of relative and absolute cell referencing.
- 59. Name cells and ranges within a spreadsheet.
- 60. Write a range of basic functions including SUM, AVERAGE, MAX, MIN, COUNT and IF.
- Assist students in creating their own spreadsheets for budgeting their pocket money, or logging their sports teams achievements, practicing the different formulas, functions and formatting skills learnt.
- Use the BBC Bitesize website section on spreadsheets: <a href="https://www.bbc.co.uk/bitesize/guides/zdydmp3/revision/1">https://www.bbc.co.uk/bitesize/guides/zdydmp3/revision/1</a>

- 61. Identify the most appropriate functions to use when developing a spreadsheet for a particular purpose.
- 62. Know how to use conditional formatting.
- 63. Confidently use conditional formatting.
- 64. Use data in a spreadsheet to create graphs and charts.
- 65. Create graphs and charts to represent different types of information.
- 66. Identify the most appropriate chart or graph to display different types of information.
- 67. Demonstrate proficiency in the use of spreadsheets to handle data in a variety of situations.
- 68. Demonstrate how to interpret data from spreadsheets.

## **Designing Vector Graphics -**

- 69. Use tools to draw and modify shapes changing position and rotation shapes.
- 70. Explain how z-order determines what is visible.
- 71. Use tools to align and distribute objects to create uniformity.
- 72. Understand how grouping can be used to work with several objects at once.
- 73. Combine two shapes using union, intersection, and difference.
- 74. Understand that vector graphics are made up of paths.
- 75. Create and modify straight and curved paths.
- 76. Combine tools and techniques to create a vector image.
- 77. Know how to evaluate the project against its given purpose.
- 78. Understand how markup defines what a vector graphic looks like.
- 79. Change an object by modifying its markup.
- 80. Plan improvements and implement them to develop a project.
- 81. Explain key differences between vector and bitmap images.
- 82. Outline which image type best suits which uses.

Useful shortcuts for Excel:
 <a href="https://www.simplilearn.com/tutorials/excel">https://www.simplilearn.com/tutorials/excel</a>
 -tutorial/excel-shortcuts

- To help your child understand the history of vector graphics: <a href="https://www.adobe.com/uk/creativecloud/illustration/discover/vector-">https://www.adobe.com/uk/creativecloud/illustration/discover/vector-</a>
  - <u>art.html#:~:text=Vector%20graphics%20are</u> %20designed%20with,allowing%20for%20a %20crisper%20display.
- Tutorials on Inkscape vector graphics software:
- https://inkscape.org/learn/tutorials/
- Tutorial for beginners 2023 -<a href="https://www.youtube.com/watch?v=rFYQW">https://www.youtube.com/watch?v=rFYQW</a>
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	83.	Evaluate their image against success
		criteria.