

KESTEVEN AND SLEAFORD HIGH SCHOOL



Computing Scheme of Learning

Year 7 – Topic 3b – Game Programming

Intent – Rationale

Topic Intent:

Curriculum Intent: Developing an understanding of some of the underlying principles of Computer Science, with a focus on ... programming, in preparation for future study of the subject

KS3 PoS: use two or more programming languages... to solve a variety of computational problems

Sequencing – what prior learning does this topic build upon?	Sequencing – what subsequent learning does this topic feed into?
<ul style="list-style-type: none"> KS2 Computing (to varying degrees) 	<ul style="list-style-type: none"> Year 8 Topic 3 and Year 9 Topic 4 (Programming) GCSE and A-Level Computer Science
What are the links with other subjects in the curriculum?	What are the links to SMSC, British Values and Careers?
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> GB4e & GB4h
What are the opportunities for developing literacy skills and developing learner confidence and enjoyment in reading?	What are the opportunities for developing mathematical skills?
Directly linked to topic <ul style="list-style-type: none"> N/A Wider Reading/Interest: <ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A

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Intent – Concepts

What knowledge will students gain and what skills will they develop as a consequence of this topic?

Know

- Understand how to create, save and edit a Scratch project
- Understand how to use basic sequence, selection and iteration programming constructs

Apply

- Create a playable game using MIT Scratch V2, using the graphics they created previously, making appropriate use of sequence, selection and iteration

Extend

- Extend their game to include levels, increasing complexity, etc.

What subject specific language will be used and developed in this topic?

- *Block programming: A visual programming techniques based on the concept of sprites and interconnected blocks*
- *Block: an instruction to be performed*
- *Sequence: an action, or event, leads to the next ordered action in a predetermined order*
- *Selection: make choices depending on information using IF... ELSE blocks*
- *Iteration: repeating a set of blocks a specified number of times or until a condition is met*

What opportunities are available for assessing the progress of students?

- In-Lesson observation and feedback
- Self, Peer and Teacher evaluation with ensuing DIRT activity

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Intent – Concepts

Lesson title	Learning challenge	Higher level challenge	Suggested activities and resources
			See T drive