



University Learning in Schools

Computing

**Games Programming in
Scratch**

Module Outline

University Learning in Schools

Module outline

Title of Module: Games Programming in Scratch
Teacher/researcher pair: Cory Belony & Daniel Portelli

Module outline
<p>1. What is the overall topic area? The topic area is based around the idea of programming and introducing more mathematical and physics based concepts. Rather than just using programming to facilitate creating a game, we felt it was important to tie in concepts that go hand in hand with the logical and problem solving aspect of programming.</p>
<p>2. How does it link to current research and why does the researcher think this is an important topic for pupils to get to grips with? The mathematical modelling that is being done for research has aided the knowledge and planning of the topic, as it helps bridge the gap between programming, Maths and Physics.</p>
<p>3. How is this topic aiming to improve teacher subject knowledge? This module aims to improve teacher subject knowledge by highlighting the algorithms required to create the code needed when programming. At GCSE and further education, the focus is very much shifted towards breaking down problems. This is essential for teachers who are making the jump from ICT to Computing/Computer Science.</p>
<p>4. What key texts/case studies/experiments/processes are being considered? Focus applied on programming with algorithms as part of building problem solving skills.</p>
<p>5. How is this topic aiming to enhance pupils' subject knowledge and improve pupil outcomes? The topic aims to enhance pupils' knowledge of the programming software. It also aims to look at building problem solving ability, using algorithms to break down problems. This in turn should help benefit pupil outcomes.</p>