iCompute Primary Computing

iModel

iCompute

Year 5

Overview

This unit introduces children to graphical modelling in three-dimensional space (3D). They will explore working with 3D shapes and design and build a model of their ideal school playground.

National Curriculum

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems: solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Curriculum Links

- Design & Technology
- Mathematics
- Science
- Art & Design

Objectives

Lesson	Title	National Curriculum Links	Objectives	Success Criteria	Vocabulary
5.5.1	iShape	✶ select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	✶ To understand the difference between 2D and 3D shapes ✶ To become familiar with basic 3D modelling tools	✶ The children use the basic building tools of graphical modelling software to build a simple 3D model	✶ 2D, 3D, dimensions, model, graphics
5.5.2	iDesign		✶ To understand that graphical models can easily be changed	✶ The children can make changes to graphical models	✶ Graphic; model; 2D; 3D; resize; rotate; design; evaluate
5.5.3	iDevelop (2 weeks)		✶ To use features of graphical modelling software to develop a 3D model	✶ The children develop their projects according to a design ✶ They combine shapes by grouping, connecting, repositioning and resizing to create a 3D model	✶ Graphic; model; 2D; 3D; resize; rotate; group; workspace; workplane; view
5.5.4	iEvaluate		✶ To evaluate and improve 3D models	✶ The children can identify improvements that could be made to a model ✶ The children amend their models to improve them	✶ Graphic; model; 2D; 3D; resize; rotate; group; workspace; workplane; view; amend; evaluate; improve