



iCompute

Overview

This unit introduces children to graphical modelling in three-dimensional space (3D). They will explore working with 3D shapes and use SketchUp to design, build and position a model of Santa's workshop.

Curriculum Links

- * Design & Technology
- * Mathematics
- * Science
- * Geography



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

Objectives

Lesson	Title	National Curriculum Links	Objectives	Success Criteria	Vocabulary
6.5.1	iBuild	* 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 become familiar with basic Sketchup tools	* The children build a simple house using Sketchup * They can explain the tools used in creating their model	2D, 3D, dimensions, model, graphics
6.5.2	iDevelop		* To build a house to scale using Sketchup	* The children build a house using SketchUp. * They add components to their house. E.g. surfaces, scales etc.	Graphic; model; 2D; 3D; resize; rotate; design; evaluate
6.5.3	iWork		* To use features of graphical modelling software to develop a 3D model	* The children design Santa's Workshop * They build a model of Santa's Workshop to their design using Sketchup	Graphic; model; 2D; 3D; resize; rotate; group; workspace; view
6.5.4	iImprove		* To evaluate and improve 3D models * To add images to 3D models	* The children can identify improvements that could be made to a model * The children amend their models to improve them * The children can import and add images	Graphic; model; 2D; 3D; resize; rotate; group; workspace; import; component; view; amend; evaluate; improve
6.5.5	iPosition		* To import a Sketchup model into Google Earth	* The children can import their model accurately in Google Earth	3D model; pan; zoom; orbit; rotate; scale; component; import; locate