

# YEAR 6

	EFYS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Creating media 1 – 3D Modelling	<p><b>The three Prime ELGS of Communication and Language, PSED and Physical Development provide the foundations of which all other learning is built upon.</b></p> <p>No Specific ELG links.</p>	To develop understanding of a range of tools for digital painting and use this to create their own digital painting.	To recognise that different devices can be used to capture, edit and improve photographs.	To use a range of techniques to create stop frame animation using tablets and apply skills to create a story-based animation.	To identify input and output devices required to work with sound digitally. To record audio themselves and understand ownership and copyright implications.	To create vector drawings by learning how to use different drawing tools to produce images.	To develop knowledge and understanding of using a computer to produce 3D models.

### Creating media – 3D Modelling

#### COMPOSITES

#### Computing – KS2

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

#### Art and design – KS2

To improve their mastery of art and design techniques, including drawing, painting, and sculpture with a range of materials

#### Design and technology – KS2

Generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

#### Mathematics – KS2 (Y6)

Recognise, describe, and build simple 3D shapes, including making nets

### COMPONENTS

	1	2	3	4	5	6	End Point
	Do I know that you can work in three dimensions on a computer?	How are digital 3D objects modified?	How can you combine objects in a 3D model?	Can I create a 3D model for a given purpose?	Can I plan my own 3D model?	Can I create my own digital 3D model?	Pupils will develop their knowledge and understanding of using a computer to produce 3D models. They will initially familiarise themselves with working in a 3D space, moving, resizing, and



<b>PROGRESSIVE VOCABULARY</b>	2d, 3d, shapes, select, move, perspective, view	handles, resize, lift, lower, recolour	rotate, duplicate, group	cylinder, placeholder, hollow	3d shapes, choose, combine	construct, evaluate, modify	Children will understand, articulate and use the vocabulary
<b>CURRICULUM EXPERIENCES</b>						Construct a 3D model	
<b>END POINT</b>	Pupils will be introduced to the concept of 3D modelling by creating a range of 3D shapes that they select and move. They also examine shapes from a variety of views within the 3D space.	Pupils will manipulate 3D objects digitally. They will resize objects in one, two, and three dimensions. They will also lift and lower 3D objects relative to the workplane and combine two 3D objects to make a new shape. Finally, pupils will recolour 3D objects.	Pupils will develop their understanding of manipulating digital 3D objects. They will rotate objects in three dimensions, duplicate objects, and then use grouping and ungrouping to manipulate many objects at once. They will combine these skills to create their own 3D name badge. Finally, the children will consider the practicality of 3D printing the objects they have made.	Pupils will be introduced to dimensions in Tinkercad which will enable them to accurately resize and move shapes. They will then be introduced to placeholders which can be used to create holes in objects. Finally the children will duplicate, then resize multiple objects to create a meaningful 3D object.	Pupils will see how computer-based 3D design is used in architecture to plan buildings. They will explode 3D models of buildings to see what shapes they comprise of. The children will then look at real-world structures and identify the shapes that they include. They will then plan their own 3D building design.	Pupils will create a computer 3D model based on their design. They will then evaluate their model and that of another learner, before modifying their own model to improve it.	

