Primary Mathematics Curriculum

Shape

	Stage 1 (Junior & Senior Infants)	Stage 2 (1st & 2nd Class)	Stage 3 (3rd & 4th Class)	Stage 4 (5th & 6th Class)
	Through appropriately playful and engaging learning experiences, children should be able to			
Learning Outcomes	explore and recognise properties of 3-D and 2-D shapes.	examine, categorise and model 3-D and 2-D shapes.	analyse the properties of 2-D and 3-D shapes and identify classes of shapes based on these properties. represent shapes with drawings and models, and calculate dimensions of shapes.	construct 2-D and 3-D models or structures given defined measurements and/or specific conditions. investigate and construct angles in the context of shape; and solve angle-related problems.
Mathematical concepts	3-D and 2-D shapes can be classified and sorted by their appearance and by simple properties.	3-D and 2-D shapes can be distinguished, identified, and categorised by their properties.	Shapes and shape families can be sorted and classified according to multiple properties and rules. For 2-D shapes, these properties include symmetry, parallel or perpendicular sides and nature of angles. For 3-D shapes, properties can include number of faces, edges and vertices.	Shapes have minimal defining lists which define their properties. These can be used to deduce and make connections between classes of shapes. 3-D and 2-D shapes can be measured and tested for the constituent properties and rules.
	2-D shapes are flat. They have two dimensions, length and width.	Geometric properties can be categorised according to symmetry, number and type of sides or faces.	A polygon is any 2-D shape with straight sides. The name indicates how many sides the shape has. In a regular polygon, all the sides are equal, and all angles are equal. Prisms and pyramids gain their names from their polygon bases.	The sum of interior angles of a 2-D shape is determined by the number of its sides.
	3-D shapes, or solids, have three dimensions, length, width and depth.	Shape families describe categories of shapes that have common properties. Sometimes shapes from the same family can look quite different or have a range of shapes within them.	Properties, rules and measurements of a shape can be investigated by construction, deconstruction and dissection.	Given some information about lines and angles, measurements can be deduced.
	Shapes can be combined to make other shapes and/or structures.	A corner of a 2-D shape makes an angle.	A net is a representation of a 3-D shape, which can be folded or assembled to re-create the 3-D shape.	To construct nets, models or structures using geometric shapes certain rules must be followed.