

NT Mathematics K -10 Curriculum Objectives Addressed Within Numbers Up! 2 Baggin' the Dragon



Age	Level	NT Level	Shape	Measurement
4-6	1-2	Level 1	<p>Students demonstrate knowledge of general shapes.</p> <p>Students match shapes despite their orientation.</p> <p>Students recognise pictures which have symmetry.</p> <p>Students use everyday language to give simple directions, describe position, locate things and describe how shapes are alike or different.</p>	<p>Students compare the size of two things using everyday language.</p> <p>They informally measure length and capacity by repeating units.</p> <p>They describe time and the passing of time and can place things in sequence.</p>
7-8	3-4	Level 2	<p>Students describe things according to their shape.</p> <p>They identify and recall the names of some common shapes.</p> <p>They construct objects from their parts.</p> <p>They locate objects and describe paths on simple grids.</p>	<p>Students compare things using measurement, using both informal and formal units.</p> <p>They acknowledge the idea of time passage and can order familiar events into typical sequences according to the time of day or year.</p> <p>They can use calendars for everyday purposes and can tell the time on a clock.</p>
9-10	5-6	Level 3	<p>Students recognise and name everyday 3D solids.</p> <p>They correctly interpret maps and directions.</p>	<p>Students recognise the need for a common unit to compare two things and are able to choose an appropriate unit for the items to be measured. They measure length, capacity, angle, area and mass. They make sensible measurement estimates of familiar objects. They can read</p>

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				clocks, calendars and simple timetables and they can distinguish between actual time and duration of time.
10-11	6-7	Level 4	<p>Students recognise nets of 3D shapes and make predictions about folding. They use geometric language to describe figures.</p> <p>They use maps employing the ideas of scale and co-ordinate.</p>	<p>Students display a knowledge of the size of a common standard unit. They use the size of common things to help in estimation. They choose their unit of measurement based on the accuracy of the measurement required. They read simple scales and measure accurately.</p> <p>They identify relationships between the measurements for some common shapes. They understand the difference between time and duration and make reasonable estimates of time.</p>
11-12	7-8	Level 5	<p>Students accurately interpret drawings of 3D shapes.</p> <p>They describe the geometric features of a collection of shapes and make abstract generalisations about</p>	<p>Students read a variety of graduated scales. They estimate, measure and calculate time and duration of time, and interpret complex timetables and schedules. They relate</p>

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			<p>them. They follow instructions for moving things. They read everyday network maps and diagrams.</p>	<p>dimensions to areas and volumes of common 2D and 3D shapes.</p>
12-13	8-9	Level 6	<p>Students understand basic properties of triangles and rectangles, and the conditions for congruent triangles. They make generalisations about shapes. They visualise the effect of transformations and describe the basic properties of these transformations. They visualise and sketch paths and regions, given a set of rules.</p>	<p>Students solve measurement problems independently. They estimate, reject unreasonable estimates, and decide the level of accuracy required. They extract measurements from published materials and choose and use a wide range of formulas to calculate areas and volume, substituting correctly and expressing in appropriate units. They work with similarity and Pythagoras's theorem.</p>
13-14	9-10	Level 7	<p>Students describe key features of figures. They solve problems involving congruence and similarity on either Euclidean results or transformations.</p>	<p>Students use a range of standard formulas to calculate length, areas and volumes of 2D and 3D shapes. They understand that measurement involves error and identify what is an acceptable level of error.</p>

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Age	Level	NT Level	Shape	Measurement
14-15	10-11	Level 8	Students display an understanding of the systematic nature of geometry, drawing on their knowledge of shapes, transformations and locations to solve problems and identify key spatial features of a geometric problem essential to its solution.	