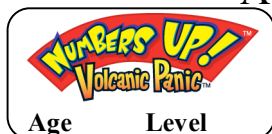
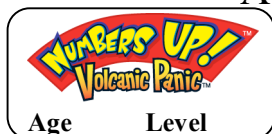


Content Design – Structure, Scope & Sequence of Mathematics Content  
Addressed Within Numbers Up! Volcanic Panic



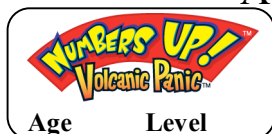
Age	Level	Ratio
10	15-16	<p>Solves simple problems involving ratio and proportion – <i>in every... Out of every For every</i></p> <p>Recognises which inference is true, given a ratio or proportional relationship <i>If..... then....</i></p>
10-11	17-18	<p>Solves simple problems involving ratio and proportion – <i>in every... Out of every For every</i></p> <p>Recognises which inference is true, given a ratio or proportional relationship <i>If..... then....</i></p> <p>Calculates quantities and numbers in real life situations given a ratio or proportional relationship</p> <p>Understands that the expression <i>2 to every 3</i> compares part to part and that <i>2 in every 5</i> or <i>2 out of 5</i> is the equivalent part-to-whole comparison</p>
11	19-20	<p>Recognises which inference is true, given a ratio or proportional relationship <i>If..... then....</i></p> <p>Understands that the expression <i>2 to every 3</i> compares part to part and that <i>2 in every 5</i> or <i>2 out of 5</i> is the equivalent part-to-whole comparison</p> <p>Begins to use the form <b>A:B</b> to compare part to part</p> <p>Begins to divide a quantity into two parts in a given ratio</p> <p>Recognises how to simplify a two-part ratio to an equivalent by cancelling</p> <p>Compare and order ratios</p> <p>Recognises the equivalence between proportions, fractions and percentages</p> <p>Begins to compare parts of a whole expressed as ratios, proportions, fractions and percentages</p> <p>Uses the principles of direct proportion to solve real life problems</p>

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Age	Level	Ratio
	21	<p>Recognises which inference is true, given a ratio or proportional relationship <i>If..... then....</i></p> <p>Understands that the expression <i>2 to every 3</i> compares part to part and that <i>2 in every 5</i> or <i>2 out of 5</i> is the equivalent part-to-whole comparison</p> <p>Begins to use the form <b>A:B</b> to compare part to part</p> <p>Begins to divide a quantity into two parts in a given ratio</p> <p>Recognises how to simplify a two-part ratio to an equivalent by cancelling</p> <p>Compare and order ratios</p> <p>Recognises the equivalence between proportions, fractions and percentages</p> <p>Begins to compare parts of a whole expressed as ratios, proportions, fractions and percentages</p> <p>Uses the principles of direct proportion to solve real life problems</p> <p>Simplify three-part ratios to an equivalent form</p> <p>Simplify ratios expressed in different units</p> <p>Consolidates understandings of the relationship between ratio and proportion</p>
12	22-23	<p>Recognises which inference is true, given a ratio or proportional relationship <i>If..... then....</i></p> <p>Understands that the expression <i>2 to every 3</i> compares part to part and that <i>2 in every 5</i> or <i>2 out of 5</i> is the equivalent part-to-whole comparison</p> <p>Begins to use the form <b>A:B</b> to compare part to part</p> <p>Begins to divide a quantity into two parts in a given ratio</p> <p>Recognises how to simplify a two-part ratio to an equivalent by cancelling</p> <p>Compare and order ratios</p> <p>Recognises the equivalence between proportions, fractions and percentages</p> <p>Begins to compare parts of a whole expressed as ratios, proportions, fractions and percentages</p> <p>Uses the principles of direct proportion to solve real life problems</p> <p>Simplify three-part ratios to an equivalent form</p> <p>Simplify ratios expressed in different units</p> <p>Consolidates understandings of the relationship between ratio and proportion</p> <p>Link ratio and proportion to scale on maps or models</p> <p>Solve problems using proportional reasoning e.g. increasing or decreasing quantities in recipes</p>

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Age	Level	Ratio
13-15	24-26	<p>Recognises which inference is true, given a ratio or proportional relationship <i>If..... then....</i></p> <p>Understands that the expression <i>2 to every 3</i> compares part to part and that <i>2 in every 5</i> or <i>2 out of 5</i> is the equivalent part-to-whole comparison</p> <p>Begins to use the form <b>A:B</b> to compare part to part</p> <p>Begins to divide a quantity into two parts in a given ratio</p> <p>Recognises how to simplify a two-part ratio to an equivalent by cancelling</p> <p>Compare and order ratios</p> <p>Recognises the equivalence between proportions, fractions and percentages</p> <p>Begins to compare parts of a whole expressed as ratios, proportions, fractions and percentages</p> <p>Uses the principles of direct proportion to solve real life problems</p> <p>Simplify three-part ratios to an equivalent form</p> <p>Simplify ratios expressed in different units</p> <p>Consolidates understandings of the relationship between ratio and proportion</p> <p>Link ratio and proportion to scale on maps or models</p> <p>Solve problems using proportional reasoning e.g. increasing or decreasing quantities in recipes</p> <p>Convert between different rates in order to compare and order ratios e.g. metres/sec compared with km/hour</p>