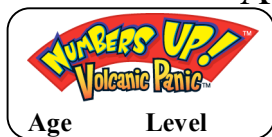
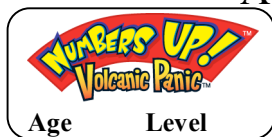


Content Design – Structure, Scope & Sequence of Mathematics Content
Addressed Within Numbers Up! Volcanic Panic



Age	Level	Subtraction
4-6	1 - 2	<p>Totals 1 - 5 Explores number pairs that total 5 Compares sets of objects – <i>more, less, the same</i> Compares 2 representations of the same set – how many have been taken away? Partition sets of objects Identifies <i>how many more</i> are needed to make a given total Uses word forms <i>take</i> and <i>less than</i> Solve simple word or picture problems related to subtraction 5 - 0</p>
	3 - 4	<p>Totals 0 - 5, 0 - 6 Explores number pairs that total up to 6 Recognises the effect of subtracting zero Uses word forms <i>count back, take away</i> Recognises the signs - and = Finds <i>one less than</i> numbers 1 to 6 Solves simple word or picture problems related to totals up to 6</p>
	5	<p>Totals 0 – 8 Explores number pairs that total up to 8 Recognises the effect of zero in subtraction Understands number statements involving – and = Compares 2 different sets of objects - e.g. bears and shirts - and identifies the inequality between the two sets Uses grids to identify <i>how many more</i> to make a given total Solves simple word and picture problems including money</p>
6-7	6	<p>Totals 0 – 10 Explores pairs with totals up to 10 Uses + and = signs Understands number sentences Uses word form <i>what is the difference between...?</i> Completes number chains with repeated subtraction Identifies complementary addition and subtraction pairs Counts on to find the first number Solves simple word and picture problems including money</p>

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



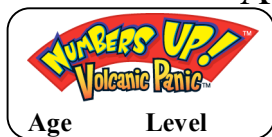
Age

Level

Subtraction

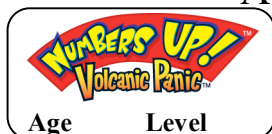
7	7	<p>Totals up to 15 Explores pairs with totals up to 15 Subtracts a single digit from a teens number across the 10 bridge - in 2 stages, and by a single operation using a number line Subtracts a single digit from a teens number without crossing 10 Subtracts a single digit from a twenties number without crossing 20 Uses grids to identify <i>how many more</i> to make a given total Recognises the word form <i>subtract</i> Given a number total and a certain number of objects displayed – how many are hidden? Solves simple word problems including money</p>
7-8	8-9	<p>Totals of all single digit number pairs Recognises subtraction facts related to totals for all single digit number pairs Subtracts a single digit from a teens number in two stages crossing 10 Finds the first number by counting on or back Uses addition and subtraction as complementary operations Can identify how many objects are hidden given a total and a set of revealed objects Recognises the use of a symbol to stand for an unknown number in a subtraction number statement Recognises the word form <i>take away</i> Subtracts 10 from any 2-digit ten multiple Solves simple word problems including money</p>
8	10	<p>Totals to 20 Knows subtraction facts for all single digit pairs Subtracts ten and ten multiples from any 2-digit ten multiple Identifies number pairs with the same difference Subtracts single digits from 20 numbers in 2 stages crossing 20 Uses a 100 grid to subtract single digits from any 2-digit number Responds to a symbol representing an unknown number in a number sentence Recognises whether number statements are true or false Solves simple word problems including money</p>

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



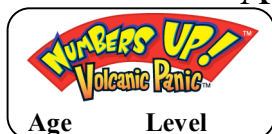
Age	Level	Subtraction
9	11	<p>Totals to 20 Knows subtraction facts for all single digit pairs Subtracts ten and ten multiples from any 2-digit ten multiple Identifies number pairs with the same difference Subtracts single digits from 20 numbers in 2 stages crossing 20 Uses a 100 grid to subtract single digits from any 2-digit number Uses a vertical algorithm for subtracting numbers without crossing tens boundaries Responds to a symbol representing an unknown number in a number sentence Recognises whether number statements are true or false Solves simple word problems including money</p>
	12-13	<p>Number facts related to pairs totalling 20 Consolidates subtraction facts related to number pairs totalling 20 Identifies subtraction pairs in the 20-30, 30-40, and 40-50 range Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts single digits from 20 numbers in 2 stages crossing 20 Recognises whether number statement involving subtractions are true or false Responds to a symbol representing an unknown number in any position in a number sentence Solves simple word problems including money and measurement</p>
-	14	<p>Number facts related to pairs totalling 20 Consolidates subtraction facts related to number pairs totalling 20 Derives related subtraction facts Subtracts ten and ten multiples from any 2-digit number Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts single digits from any 2-digit number crossing tens boundaries Recognises whether number statement involving subtractions are true or false Uses both horizontal and vertical subtraction algorithms Uses a vertical algorithm involving decomposition and crossing of tens boundaries Responds to a symbol representing an unknown number in any position in a number sentence Solves simple word problems including money and measurement</p>

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



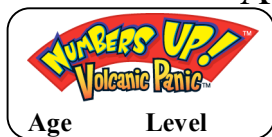
Age	Level	Subtraction
	15	<p>Number facts related to pairs totalling 20 Consolidates subtraction facts related to number pairs totalling 20 Derives related subtraction facts Subtracts ten and ten multiples from any 2-digit number Uses 100 grid to assist subtraction of “number families” – 1, 11, 9, 19, etc – from 2-digit numbers Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts single digits from any 3-digit number crossing tens boundaries Uses subtraction involving number pairs totalling 100 Recognises whether number statement involving subtractions are true or false Uses both horizontal and vertical subtraction algorithms Uses a vertical algorithm involving decomposition and crossing of tens boundaries Finds the first number (before subtraction) across hundreds bounds Responds to a symbol representing an unknown number in any position in a number sentence Solves simple word problems including money and measurement</p>
	16	<p>Number facts related to pairs totalling 20 Consolidates subtraction facts related to number pairs totalling 20 Derives related subtraction facts Subtracts ten and ten multiples from any 2- or 3-digit number Uses 100 grid to assist subtraction of “number families” – 1, 11, 9, 19, etc – from 2-digit numbers Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 2-digit numbers from 3-digit number without crossing tens boundaries Uses subtraction involving number pairs totalling 100 Recognises whether number statement involving subtractions are true or false Uses both horizontal and vertical subtraction algorithms Uses a vertical algorithm involving decomposition and crossing of tens boundaries Subtracts single digits across hundreds bounds and thousands bounds Responds to a symbol representing an unknown number in any position in a number sentence Solves simple word problems including money and measurement</p>

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



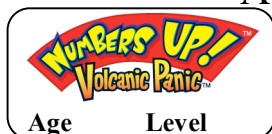
Age	Level	Subtraction
	17	<p>Number facts related to pairs totalling 20 Consolidates subtraction facts related to number pairs totalling 20 Derives related subtraction facts Subtracts ten and ten multiples from any 2- or 3-digit number Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 2-digit numbers from 3-digit number including crossing tens boundaries Uses complementarity of addition and subtraction to supply numbers missing from given number sentences Recognises whether number statement involving subtractions are true or false Uses both horizontal and vertical subtraction algorithms Uses a vertical algorithm involving decomposition and crossing of tens boundaries Uses both addition and subtraction facts to identify number statements which have the same answer Responds to a symbol representing an unknown number in any position in a number sentence Solves simple word problems including money and measurement</p>
	18	<p>Number facts related to pairs totalling 20 Subtracts 3-digit numbers from 3-digit numbers, not crossing tens or hundreds boundaries Subtracts ten and ten multiples from any 2- or 3-digit number Solves number problems related to subtraction, given a total and two out of three subtrahends Recognises whether number statement involving subtractions are true or false Uses both horizontal and vertical subtraction algorithms Uses a vertical algorithm involving decomposition and crossing of tens boundaries Subtracts single digits across hundreds bounds and thousands bounds Responds to a symbol representing an unknown number in any position in a number sentence Uses subtraction involving number pairs totalling 100 Subtracts using single digit numbers to cross 1 000 bounds Solves simple word problems including money and measurement</p>

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



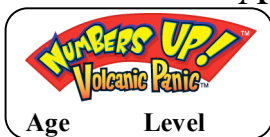
Age	Level	Subtraction
	19	<p>All previous subtraction facts Decimal tenths Subtracts 3- and 4-digit numbers Subtracts single digits and teens numbers across hundreds and thousands bounds Recognises decimal complements in 1 Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 10, 100 and 1 000 multiples from numbers of any size Consolidates complementary number pairs in 50, 60 and 70 Identifies differences between decimal numbers (one decimal place) Recognises whether double-sided number statements are true or false</p>
	20	<p>All previous subtraction facts Decimal tenths Subtracts 3- and 4-digit numbers Subtracts single digits and teens numbers across hundreds and thousands bounds Recognises decimal complements in 1, 10 and 20 Subtracts decimal numbers with 1 decimal place including crossing ones using both vertical and horizontal algorithms Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 10, 100 and 1 000 multiples from numbers of any size Recognises whether double-sided number statements are true or false</p>
	21	<p>All previous subtraction facts Decimal tenths Subtracts 3- and 4-digit numbers Subtracts single digits and teens numbers across hundreds and thousands bounds Recognises decimal complements in 1, 10 and 20 Subtracts decimal numbers with 1 decimal place including crossing ones using both vertical and horizontal algorithms Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 10, 100 and 1 000 multiples from numbers of any size Uses subtraction facts related to 50-multiple number pairs within one thousand Completes multiple subtractions (subtraction chains) using decimal numbers with 1 decimal place</p>

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



Age	Level	Subtraction
		<p>Recognises whether double-sided number statements are true or false</p>
	22-23	<p>All previous subtraction facts Decimal tenths Decimal hundredths Subtracts 3-, 4- and 5-digit numbers Subtracts single digits and teens numbers across hundreds and thousands bounds Recognises decimal complements in 1, 10 and 20 Subtracts decimal numbers with 1 and 2 decimal places including crossing ones using both vertical and horizontal algorithms Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 10, 100 and 1 000 multiples from numbers of any size Uses subtraction facts related to 50-multiple number pairs within one thousand Completes multiple subtractions (subtraction chains) using decimal numbers with 1 and 2 decimal places Recognises whether double-sided number statements are true or false</p>
	24-25	<p>All previous subtraction facts Decimal tenths Decimal hundredths Negative integers Subtracts 4-, 5- and 6-digit numbers Subtracts single digits and teens numbers across hundreds and thousands bounds Subtracts decimal numbers with 1 and 2 decimal places including crossing ones using both vertical and horizontal algorithms Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 10, 100 and 1 000 multiples from numbers of any size Completes multiple subtractions (subtraction chains) using decimal numbers</p>

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



Age	Level	Subtraction
		<p>with 1 and 2 decimal places Subtracts 2-digit positive and negative integers Recognises whether double-sided number statements are true or false</p>
13-15	26	<p>All previous subtraction facts Decimal tenths Decimal hundredths Negative integers Indices Roman numerals Subtracts 4-, 5- and 6-digit numbers Subtracts single digits and teens numbers across hundreds and thousands bounds Subtracts decimal numbers with 1 and 2 decimal places including crossing ones using both vertical and horizontal algorithms Solves number problems related to subtraction, given a total and two out of three subtrahends Subtracts 10, 100 and 1 000 multiples from numbers of any size Completes multiple subtractions (subtraction chains) using decimal numbers with 1 and 2 decimal places Subtracts 2- and 3-digit positive and negative integers Recognises whether double-sided number statements are true or false Subtracts numbers written using index notation Subtracts numbers written in Roman numerals and converts answers to ordinary numerals</p>