

**RESEARCH**

**ADDITION AND SUBTRACTION CONCEPT SEQUENCE**

**PROFESSIONAL LEARNING**

Number and Algebra concepts in Kindergarten / Prep / Reception are taught informally. These concepts are listed at [A LEARNING PLACE A TEACHING PLACE](#) under Early Counting and Grouping.

Select the Level number to link to the TEACHING RESOURCES for that Level at [A LEARNING PLACE A TEACHING PLACE](#).

LINKS		ADDITION AND SUBTRACTION	WITH RELATED CONCEPTS		
YEAR 1	<u>1</u>	Counting forwards by 1s is adding 1 each time, recording on a number line.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>RELATIONSHIP BETWEEN PLACE VALUE AND ADDITION AND SUBTRACTION</b> </div> <p><b>5</b> Add single-digit numbers explaining commutativity. (Also Patterns and Algebra 4)</p>		T1
	<u>2</u>	Counting backwards by 1s is subtracting 1 each time, recording on number line.			
	<u>3</u>	.1 Add single-digit numbers using counters. .2 Subtract single-digit numbers using counters, recording counters.			
	<u>4</u>	.1 Add single-digit numbers counting on a number line. .2. Subtract single-digit numbers counting on a number line, counting back by 1s from one number, recording on a number line.			
	Investigate Friends of 10, Place Value of Teen Numbers and Partitioning (PLACE VALUE 6, 7, 8), then apply below.				
	<u>6</u>	Add single-digit numbers bridging 10 using non-count by ones strategies involving place value.	<p><b>6</b> Add single-digit numbers bridging 10 using non-count by ones strategies involving place value.</p> <p><b>7</b> Subtract a single-digit from a teen number bridging 10 using non-count by ones strategies involving place value.</p>		T2
	<u>7</u>	Subtract a single-digit from a teen number bridging 10 using non-count by ones strategies involving place value.			
	Investigate Friends of 20 and any decade, Partitioning 10s Numbers and Place Value of Two-digit Numbers (PLACE VALUE 9, 10, 11), then apply below.				
	<u>8</u>	.1 Add single-digit and teen numbers bridging 20 using place value. .2 Subtract single-digit from 20-something numbers bridging 20 use place value.	<p><b>8</b> Add single-digit and teen numbers bridging 20 using place value. <b>9</b> Subtract single-digit from 20-something numbers bridging 20 use place value.</p>		T2
	<u>9</u>	.1 Add single-digit and two-digit numbers bridging any decade using place value. .2 Subtract single-digit from two-digit numbers bridging any decade using place value.			
			<u>10</u>	Add and subtract zero. (Also Patterns and Algebra 5)	T3
			<u>11</u>	Add 3 or more numbers using associativity and friends of 10. (Also Patterns and Algebra 6)	
<u>12</u>			Equivalent sentences involving addition and subtraction, describing the equals sign as equality. (Also Patterns and Algebra 7)	T4	

LINKS		ADDITION AND SUBTRACTION	WITH RELATED CONCEPTS		
YEAR 2	Investigate counting forwards and backwards by 10s on and off the decade from tens and two-digit numbers. (PLACE VALUE 12), then apply below.				T1
	<u>13</u>	.1 Add tens numbers counting forwards by 10s. .2 Subtract tens numbers counting backwards by 10s.			
	Investigate partitioning tens numbers, friends of 100, place value and counting by 10s from three-digit numbers, (PLACE VALUE 13, 14, 15, 16), then apply below.				
	<u>14</u>	.1 Add tens numbers using place value. .2 Subtract tens numbers using place value.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>RELATIONSHIP BETWEEN PLACE VALUE AND ADDITION AND SUBTRACTION</b> </div>		
	<u>15</u>	.1 Add tens and two-digit numbers counting by 10s. .2 Subtract tens and two-digit numbers counting backwards by 10s.			
	<u>16</u>	.1 Add tens and two-digit numbers using place value. .2 Subtract tens from numbers in the one hundreds using place value.			
	<u>17</u>	.1 Add two-digit numbers using place value. .2 Subtract two-digit from number in the one hundreds using place value.	<u>18</u>	.1 Add coins and notes. .2 Subtract coins and notes. .3 Count change. (Also Money and Financial Mathematics 7)	
		<u>19</u>	Solve missing number sentences seeing difference in 3 ways. (Also Patterns and Algebra 13)	T3	
		<u>20</u>	Addition and subtraction word problems as number sentences. (Also Patterns and Algebra 14)		
YEAR 3	Investigate counting by 10s, 100s and 1000s and place value of four-digit numbers, (PLACE VALUE 17), then apply below.				T1
	<u>21</u>	.1 Add three-digit numbers using place value and compensation. .2 Subtract three-digit numbers using place value and compensation. .3 Add four-digit numbers using place value and compensation. .4 Subtract four-digit numbers using place value and compensation.			
	<u>23</u>	.1 Add money of up to four-digits using place value, round to nearest 5 cents, give change .2 Subtract money of up to four-digits using place value. (Also Money and Financial Mathematics 9)	<u>22</u>	Missing and equivalent addition and subtraction number sentences. (Also Patterns and Algebra 19)	

LINKS		ADDITION AND SUBTRACTION	WITH RELATED CONCEPTS
YEAR 4	Investigate place value of five-digit numbers. (PLACE VALUE 19), then apply below.		
	<u>24</u>	.1 Add five-digit numbers, including as money, using place value and compensation (possibly algorithms) .2 Subtract five-digit numbers, including as money, using place value and compensation (possibly algorithms). (Also Money and Financial Mathematics 10)	<u>25</u> Add and subtract combinations of even and odd numbers, using the relationships to check calculations. (Also Patterns and Algebra 21)
	Investigate equivalent fractions on a number line, (FRACTIONS AND DECIMALS 14), then apply below.		
	RELATIONSHIP BETWEEN PLACE VALUE AND ADDITION AND SUBTRACTION		<u>26</u> .1 Number patterns involving fractions that increase through addition .2 Number patterns involving fractions, that decrease through subtraction. (Also Patterns and Algebra 22, Fractions and Decimals 15)
		<u>27</u> Equivalent number sentences involving addition and subtraction to find unknown quantities. (Also Patterns and Algebra 24)	T4
YEAR 5	<u>28</u>	.1 Add fractions and mixed numerals with the same denominator. .2 Subtract fractions and mixed numerals with the same denominator. (Also Fractions and Decimals 23)	
	Use this concept now to investigate patterns with fractions and decimals (PLACE VALUE 27, FRACTIONS AND DECIMALS 24, PATTERNS AND ALGEBRA 27). Investigate decimals to thousandths on a number line, (PLACE VALUE 26, FRACTIONS AND DECIMALS 22) then apply below.		
			T3

LINKS		ADDITION AND SUBTRACTION	WITH RELATED CONCEPTS	
<b>YEAR 6</b>	<u>29</u>	.1 Add whole numbers and decimals of any size using place value. .2 Subtract whole numbers and decimals of any size using place value. (Also Fractions and Decimals 32, Place Value 32)		
	<i>Investigate fractions in their simplest form, (FRACTIONS AND DECIMALS 28) then apply below.</i>			
	<u>30</u>	.1 Add fractions and mixed numerals with related denominators using place value. .2 Subtract fractions and mixed numerals with related denominators using place value. (Also Fractions and Decimals 33)	<u>31</u>	.1 Number patterns with whole numbers in a table, describing the rule using the relationship between the term and the number. .2 Number patterns with fractions in a table, describing the rule using the relationship between the term and the number. .3 Number patterns with and decimals in a table, describing the rule using the relationship between the term and the number. (Also Patterns and Algebra 28, Fractions and Decimals 34, Place Value 31)
			<u>32</u>	<b>Negative numbers.</b> (Also Patterns and Algebra 30)
			<u>33</u>	<b>Missing and equivalent number sentences using order of operations and grouping symbols.</b> (Also Patterns and Algebra 31, Multiplication and Division 29)
				<b>T2</b>
				<b>T3</b>
				<b>T4</b>