Addition Fact Strategies

Strategy	Strategy Description	Examples
For the strategies below, start with pictures & objects before moving to **algorithms** *(number sentences).*		
Counting On- **One-more-than/Two-more- than**	Used when adding 1 or 2 to a given number.	4 + 1 10 + 2
Facts with 0	Used when added zero to a quantity, the sum is the same amount.	6 + 0 0 + 3
Doubles	Adding two of the same number together.	2 + 2 8 + 8
Doubles + 1	Finding a double hidden in the fact where one addend is one more than the other.	4+5 = 4 + (4+1) 6 + 7 = 6 + (6 +1)
Combinations of Ten	**Grouping** the numbers to find **expressions** *(numbers, symbols & operations grouped together that show the value of something)* that would equal 10.	7 + ☐ = 10 ☐ + 3 = 10
Make Ten	When adding 7, 8 or 9 making them a 10 and adding the adjusted number. In the example **decompose** *(process of separating numbers into smaller number equal to the original)* the 5 to 2 + 3 then add the 2 to the 8 making 10. Then add 10 + 3 to get the sum 13.	8 + 5 8 + (2 +3) 8 + 2 +3 (8 + 2) +3 10 + 3
Doubles + 2 **Two-Apart Facts**	Finding a double hidden in the fact where one **addend** is two more than the other. In the example 3 + 5 is double 3 and 2	3 + 5 3 + (3 + 2) 3 + 3 + 2
+ 9 **Add 10 and take 1 away**	When an **addend** is 9, then just add 10 and take 1 away from the sum. This skill is useful with larger numbers.	12 + 9 12 + 10 = 22 -1 21
+ 4 **Add 2 and add 2**	When an added is 4, add 2 and then add 2 again.	7 +4 7 + (2 + 2) (7 + 2) + 2 9 + 2
+ 10	When adding a number to ten, the **place value** of the "ten's digit"	10 + 18

Bolded Words are Critical Mathematical Vocabulary.

Subtraction Fact Strategies

Strategy	Subtraction Description	Example
For the strategies below, start with pictures & objects before moving to **algorithms** *(number sentences)*.		
- 0 from a number	When subtracting zero to a quantity, the sum is the same amount.	7-0 13-0
- 1 from a number	When subtracting 1 from a number, the quantity is one **less than** the original number.	6-1 17-1
- a number from itself	When subtracting a number from itself the quantity is zero.	4-4 12-12
Subtracting within 10	Students should be able to subtract fluently within 10.	9-7 6-2
Subtracting from 10	When subtracting from 10, **compose** *(process of combining numbers to make a larger number)* 10 finding the number that could be added to the subtracted number to make 10.	10-4 4 + ☐ = 10
Build Up Through Ten	Used when either the **subtrahend** or **minuend** is 8 or 9. *(Subtrahend/minuend- the number subtracted from the total)*	14-9 *start with 9 and work up through 10: 9 and 1 is 10 and 4 more makes 5*
Back Down Through Ten	Working backward with 10 as a "bridge".	15-6 Take 5 away from 15 to get to ten. Then take one more away, leaving 9.
Subtracting half facts	Utilizing doubles facts to determine the quantity	8-4 4 + 4 = 8 So 8 – 4 = 4
Fact Families	Think of the **fact family** to recall the missing number.	16 – 9 9 + ☐ = 16
Subtracting difference of 1 or 2	Used with subtracting 1 and 2 from a given number. Using one **less than** for subtracting 1 and then repeating the process when subtracting 2	7-1 or 13-2
- 10 from a teen number	When subtracting ten from a number, the **place value** of the "ten's digit" decreases.	13-10 or 17-10
- 8 or 9	When subtracting 9 from a number, subtract 10 and add 1 **more than**. When subtracting 8 from a number subtract 10 and add 1 more and 1 more (or +2).	13-9 13-10 + 1
Think Addition	Using the known addition facts to solve the subtraction problem by using the **inverse** *(opposite)* of addition.	13-5 Think what goes with 5 to make 13?

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