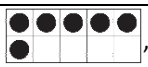
# Basic Facts' Strategies

| Strategy Name | Description | Sample Problem | What Students Should "Think in their Heads" |
|---|---|---|---|
| **Counting On** | Addition strategy for adding 0, 1, 2 or 3<br>Say larger number, and then "count on" | 3 + 6 | "Six is the larger number, so six, seven, eight, nine." |
| **Turn Around Facts** | Addition strategy to show the value of the commutative property (i.e. 4+5=5+4) | 2 + 5 | " 2 + 5 will give me the same answer as 5 + 2 so it would be five, six, seven." |
| **Doubles** | Addition strategy when both addends are the same | 4 + 4 | The doubles are facts that kids should memorize. |
| **Near Doubles or Next Door Neighbors** | Addition strategy when the addends are numbers "next" to each other (i.e. 4 and 5; 8 and 9; 3 and 2) | 7 + 6 | "I know that 6 + 6 is 12, so this must be one more, 13" OR "I know that 7 + 7 is 14, so this must be one less, 13" |
| **Dive In-Between** | Addition strategy when addends have exactly one number between them (i.e. 6 and 4; 7 and 9; 5 and 7). The answer is always the "double" of that number in between. | 9 + 7 | "I know that 8 is in-between 7 and 9, so the answer is 8 doubled, which is 16" |
| **Ten Pairs** | Help children recognize pairs of numbers that have a sum of 10. Early work with ten-frames helps build this foundational thinking. | 6 + 4 |  "I am thinking what 6 looks like, and it will take 4 to fill the frame, so 6+4=10" |
| **Make Ten** | Addition strategy building on what students know about ten pairs. Students break apart the second addend to "make ten." | 8 + 5 | "8 + 5 is the same as 8 + 2 + 3 which is the same as 10 + 3 which is 13." |
| **Counting Back** | Subtraction strategy for subtracting 0, 1, 2 or 3. Say beginning number, and then "count back." | 9 – 2 | " Nine, eight, seven." |
| **Close Together** | Subtraction strategy when the two numbers are "close together." Start at the smaller number and count up to the larger. | 8 – 6 | "Seven, eight – so the answer is 2 since I counted two numbers up from 6 to get to 8" |
| **Use Addition** | Subtraction strategy focusing on the fact family relationship between addition and subtraction. Use what kids know about addition facts to solve subtraction facts. | 10 - 5 | "I know 5 + 5 is 10, so 10 – 5 must be 5." |
| **Ten Between** | Subtraction strategy when ten lies between two numbers. Figure out how far each number is away from ten to find the total distance between the two numbers. | 13 – 8 | "13 is 3 away from ten and 8 is 2 away from ten, so 13 is 2 + 3 = 5 away from 8. 13 – 8 = 5." |
| **Zero Property** | Multiplication strategy – anything times 0 equals 0. | 7 x 0 | "Since 0 is a factor the answer is 0." |
| **Identity Property** | Anything times 1 equals the number itself. | 1 x 8 | "Since 1 is a factor the answer is 8." |
| **Doubles** | Anything times 2 is the same as addition doubles | 5 x 2 | "Five plus five is 10 so 5 x 2 = 10." |
| **Clock 5s** | Use what kids know about telling time on an analog clock to help with multiplying by 5. The number the minute hand points to represents that many sets of "five minutes" past the hour. Utilize what kids know about the 3 (15 minutes) and 6(30 minutes) to help them solve numbers close to those. | 7 x 5 | "I know when the minute hand in on the 6 it is 30 minutes past the hour, so when it is on the 7 it is 5 minutes MORE, or 35 minutes past the hour. So 7 x 5 = 35." |
| **Nine facts** | Answers to nine facts are always in the "tens" right before the other factor (i.e. 8 x 9 is in the 70s, 6 x 9 is in the 50s), and the digits of the answer always add up to 9. | 9 x 8 | "I know the answer is in the 70s, so it must be 72 since 7 + 2 = 9." |
| **Doubles Doubled** | Multiplication strategy for 4s. When multiplying by 4, just double the other factor, and then double it again. | 4 x 7 | "7 doubled is 14, 14 doubled is 28, so 7 x 4 = 28." |
| **Doubles Plus One Set** | Multiplication strategy for 3s. When multiplying by 3, just double the other factor, and then add one more set of the other factor. | 3 x 6 | "6 doubled is 12, plus 6 is 18." |
| **Fives Plus One Set** | Multiplication Strategy for 6s. Kids use what they know about 5 facts to answer 6 facts. | 6 x 8 | "I don't know what 6 times 8 is, but I DO know that 5 x 8 is 40, plus one more set of 8 is 48." |
| **Think Multiplication** | Students use what they know about multiplication and fact family relationships to answer division facts. | 45/5 | "What times 5 is 45? 9! So 45/5 = 9." |