Autumn 1: Week 3: Mastering this Objective – Deeper Understanding

Addition & Subtraction: Add and subtract numbers mentally with increasingly large numbers.

Teaching Sequence

Mentally:

- Add any two 2-digit numbers
- Subtract any 2-digit number from any other greater 2-digit number
- Subtract any 2-digit number from any 3-digit number
- Add any 2-digit and any 3-digit number
- Subtract any 2-digit number from any 4-digit number
- Add together two 3-digit numbers
- Subtract a 3-digit number from a greater 3-digit number
- Add any 1000s number to any 4 or 5-digit number
- Subtract any 1000s number from a greater 5-digit number

If pupils have mastered this objective they will be able to complete these activities independently:

Sequence Checker

177,000, 187,000, 197,000, 217,000
What is wrong with this sequence of numbers?

238,000, 228,000, 218,000, 208,000, 188,000
What is wrong with this sequence of numbers?

456,000, 455,500, 455,000, 454,500, 453,000
What is wrong with this sequence of numbers?

Improving your mental subtraction

Take 129 from 347

129 ⟶ 200 = 71
200 ⟶ 300 = 100
300 ⟶ 347 = 47
Answer = 218

Use this method to calculate the following:

521 – 276; 712 – 413; 926 – 382
691 – 367; 827 – 672; 520 - 167

Take 500 away from each of these numbers:

1,234,893	439,265	812,256
768,092	845,289	723,127

Take 5000 away from each of these numbers:

1,346, 989	2,346, 235	3,125,890
2,562,123	5,763,124	7.090,123

Mental agility involving money

Paying amounts with a £50 note:
How quickly can you respond when asked to give change?

How much change will you have from a £50 if you were asked to pay:

£21.98;	£14.92	£17.93	£16.32	£16.88
£19.34	£34.56	£14.87	£17.45	£17.77

Autumn 1: Week 3: Working at greater depth

Addition & Subtraction: Add and subtract numbers mentally with increasingly large numbers.

Teaching Sequence

Mentally:

- Add any two 2-digit numbers
- Subtract any 2-digit number from any other greater 2-digit number
- Subtract any 2-digit number from any 3-digit number
- Add any 2-digit and any 3-digit number
- Subtract any 2-digit number from any 4-digit number
- Add together two 3-digit numbers
- Subtract a 3-digit number from a greater 3-digit number
- Add any 1000s number to any 4 or 5-digit number
- Subtract any 1000s number from a greater 5-digit number

Activities for pupils working at greater depth:

Paying multiple amounts

Work these out mentally first and then check:

Pay with one or two £50 notes for these tickets. How much change will I receive?

- 2 adult tickets @ £13.50 and 2 children's tickets @£9.50
- 4 adult tickets @ £9.99 and 6 children's tickets @ £7.99
- 4 adults tickets @ £19.50
- 6 children's tickets @ £7.95

What are the missing digits?

Estimate first and then check.

123,908 + 125,0 ☐ 6 = 248,984

256, ☐ 56 + 125,896 = 382,452

☐ 72,901 + 262,980 = 1,035,881

1,892,009 - 435, ☐ 76 = 1,456,233

3,901,834 - 1, ☐ 34,999 = 1,966,835

Minus 1500

Take 1,500 away from each of these numbers:

Mentally first and then check

1,234,893	439,265	812,256
768,092	845,289	723,127

Take 50,000 away from each of these numbers:

1,346, 989	2,346, 235	3,125,890
2,562,123	5,763,124	7.090,123

Card Fun

Have two sets of cards:

Set A has numbers of multiples of 100; 1,000; 10,000 and 100,000 on them.

Set B has numbers in their millions.

The idea is to show one of the Set B cards and then either add or subtract the next card from Set A.

Pupils play this in 2s or 4s and time each other to see how many correct answers they get within a given time frame.