Dr Fog Presents

Adding and Subtracting Multiples of 1, 10 and 100.

Year 3 (National Numeracy Strategy)
(Based on DFEE Sample Lessons)

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Resources

• Large set of arrow cards 1-9, 10 - 90 and 100 - 900.
• Six cards, showing: +1, -1, +10, -10, +100, -100.
• Worksheet on Number patterns
Mental Learning Objective

• I know what each digit in a number represents.
Mental Learning Task

• Today’s lesson is about adding and subtracting multiples of 10 and 100 - ‘tens’ numbers and ‘hundreds’ numbers.
Mental Learning Task

- To get warmed up, we are going to play a few counting games.
Mental Learning Task

Start at 28. Count on in ones...

Count back to 28
Mental Learning Task

Start at 5. Count on in tens...

Count back to 5
Mental Learning Task

Start at 100. Count on in tens...

Count back to 100
Mental Learning Task

Start at 5. Count on in hundreds...

Count back to 5
Mental Learning Task

- 1 is the start number
- Now change to...

+1 -100 +10 End
Mental Learning Task

• Can you make these numbers from the arrow cards?

26 78 708 34 630
Mental Learning Task

- Now can you make the numbers which are one more than these?

26 78 708 34 630
Mental Learning Task

• Now can you make the numbers which are ten more than these?

26 78 708 34 630
Mental Learning Task

- Now can you make the numbers which are 100 more than these?

26 78 708
34 630
Mental Learning Task

• Now can you make the numbers which are 1 less than these?

26  78  708
34  630
Mental Learning Task

• Now can you make the numbers which are 100 less than these?

26 78 708
34 630
Mental Learning Task

• Now can you make the numbers which are 10 less than these?

26 78 708
34 630
Mental Learning Objective

- I know what each digit in a number represents.
Main Learning Objective

- I can split or partition a number into its component hundreds, tens and units.

- I can say the number that is 1, 10 or 100 more or less than any given two- or three-digit number.
Key idea

If you add or subtract 10 or 100, the units stay the same!
Main Learning Task

- Today we are going to work in three groups.
  - Group 1: - Easiest
  - Group 2: - Middle
  - Group 3: - Hardest
Main Learning Task

• Group 1: Easiest.

• You will need to wait as you need to use the computer.
Main Learning Task

• Group 2:
• You can only write the following numbers and signs.
• You can use each more than once in any sum.
• What are the answers?

+ 0 = 1
Main Learning Task

- Group 3: Hardest

- Complete the number patterns worksheet.
Main Learning Task

- Group 1: Simplest.
- You need a set of operation cards.
- You need a set of arrow cards.

<table>
<thead>
<tr>
<th>305</th>
<th>781</th>
<th>746</th>
<th>400</th>
<th>234</th>
</tr>
</thead>
<tbody>
<tr>
<td>455</td>
<td>321</td>
<td>398</td>
<td>607</td>
<td>432</td>
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</table>
Main Learning Task

- Pick a number from the table.
- Make it with arrow cards.
- Pick an operation card.
- What does it say?

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Main Learning Task

• Take the card made from the arrow cards.

• Work out the answer to the sum in your head.

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Main Learning Task

• Change the arrow cards to show the new number.
• Can someone else check if you are right?
Main Learning Task

- The child who solved the sum picks the next number.

- How many can you do?

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Main Learning Objective

- I can split or partition a number into its component hundreds, tens and units.

- I can say the number that is 1, 10 or 100 more or less than any given two- or three-digit number.
I have got lots of 1p and 10p coins.

How could we make 15p?
How could we make 33p?
How could we make 59p?
What other ways could we make 59p?
Plenary

• My bag now only contains ten coins.

• I know they are only 1p and 10p coins.

• What different amounts might there be?
Plenary

- Let's write them down...

Different amounts of coins.
Plenary

- Did you find all 11 ways?

Different amounts of coins.
Plenary

• How can we find which one is missing?

Different amounts of coins.
Plenary

• We can count them, put them in order and look for patterns.

Different amounts of coins.
Review of Key Idea

• Today’s key idea was....

• If you add or subtract 10 or 100, the units stay the same.

• Did you find that out today?
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