AT A GLANCE

The children count on and back in tens from any two-digit number using money and explain how they do this. They use a range of resources to explain and record how they solve problems when they add or subtract a multiple of ten (exploring the inverse relationship between addition and subtraction). They then practise adding and subtracting a multiple of ten by playing the Multiples of Ten Game.

RESOURCES/PREPARATION

Two-Digit Number Cards
1-3 Spinner
Multiples of Ten Game Mat (x 3)
Multiples of Ten Pathway sheet (x 5)
Counters
Finish Envelopes (x 2)
Winning Statements (x 2)
Sticky notes
Purse/money box
10p and 1p coins
Base ten apparatus

ADAPTING THE LESSON

Making it easier...
Start from a multiple of ten (10, 20, 30, 40...) when counting in tens.
Use a Two Hundred Grid to support counting on in multiples of ten.
Extending the learning...
Count beyond 100, starting with a two-digit number to end up with a number over 100.

THINGS TO WATCH OUT FOR

Can they make jumps of ten on a blank number line?

Can they say the value quickly when they see an amount in 10ps and 1ps, e.g. four 10ps and three 1ps.

MATHEMATICAL LANGUAGE/VOCABULARY

2 is the **tens digit** in 26 6 is the **ones/units digit** in 26 10 **more than** 26 is 36 10 **less than** 26 is 16	26 **add** 10 equals 36 Find the **total** How many **altogether**? 30 is a **multiple** of 10

COUNTING: We are going to practise counting on and back in ten from any number using money.

Ask the children to make 24p (two 10ps and four 1ps).
Record this starting number on a sticky note.
Add a 10p.
How much is in the purse now? 34p
Record 34p on a sticky note.
Model adding 10p repeatedly, with the children saying the total as you place down the 10p pieces: 34p, 44p, 54p, 64p.
Record the numbers each time on a sticky note.
Look at the numbers recorded.
How could we reach 94p?
What would we need to do to reach 97p? We would need to add 1p coins.

Look at the numbers recorded.
What pattern can you see / hear?
Which digit changes? Which digit stays the same? Why?
(Can children explain that when you count in tens, the units digit stays the same?)
We are now going to count back in tens from 64p.
Count backwards as you take away 10p: 64p, 54p, 44p, 34p, 24p.

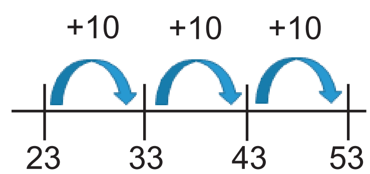
MAIN LEARNING: We are going to practise adding a multiple of ten to a two-digit number.

Who can think of a multiple of ten?
Take a few examples: 10, 20, 30 etc.

Display 23 + 30 =
How could we add 30 to 23?

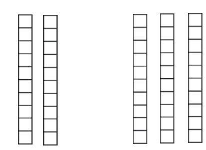
23 + 30 =

We could use a blank number line to help us. Draw a blank number line and label 23.
I have 23 and I want to add 30.
If I want to add 30, how many jumps of ten do I need to make?
Model jumping in tens from 23 (see diagram).

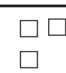


Establish that the result will be more than the starting number when we add.
So 23 add 30 is 53. We started at 23 and counted on 30.
Record 23 + 30 = 53.

We could also use base ten apparatus to show 23 + 30.
What does the 2 represent in 23? Two tens or **twenty.**
Who can make it using tens sticks?
Place two tens sticks above the 23.
What does the 3 represent in 23? 3 ones/units
Place 3 unit cubes below the 23.
How any tens must we add? 3 tens or thirty
Place three ten sticks above the 30.
Now we must add them together.
How shall we do this? Count on in 10s from the 23 or add the tens then the ones to make 53



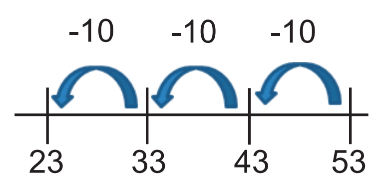
23 + 30 =



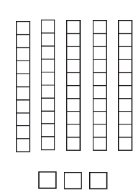
What would 53 – 30 be?
Display 53 – 30 =
How could we subtract 30 from 53?

53 - 30 =

We could use a blank number line to help us. I have 53 and I want to subtract 30.
Draw a blank number line and label 53.
If I want to subtract 30, how many jumps of ten do I need to make?
The children may need to identify 30 as three jumps of ten.
Model jumping back in tens from 53 (see diagram).
Establish that the result will be less than the starting number when we subtract.
So 53 subtract 30 is 23. We started at 53 and counted back 30.
Record 53 - 30 = 23.



How could we show this with base ten apparatus?
Make 53 using 5 ten sticks and 3 ones.
How many tens should I subtract? 3 tens or thirty
So 53 subtract 30 is 23.



What do you notice about your sets of calculations?
23 + 30 = 53
53 – 30 = 23
What is the same? Different? Can you explain your thinking?

Repeat with another example.

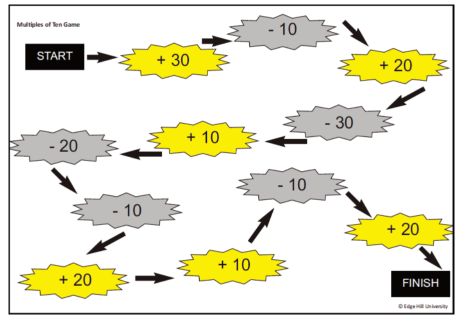
USING WHAT WE HAVE LEARNT: We are going to use what we know about adding and subtracting multiples of 10 to play a game.

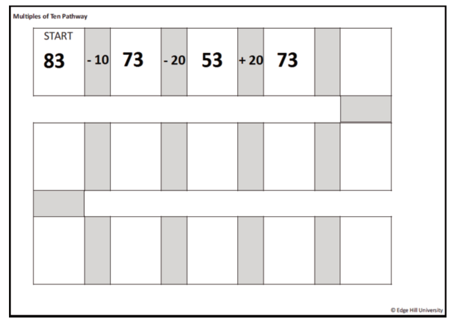
Play the Multiples of Ten Game.
Give each child a Multiples of Ten Pathway sheet to record their moves.
Ask each child to choose a 'starting number' between 80 and 90 and record it on their Pathway sheet.

Give each child a counter and ask them to put it on START on the game mat.
The first player spins the 1-3 Spinner and moves that many spaces on the mat.
Read what it says on the square e.g.' -10'.
The player must subtract 10 from their starting number.
They then record their move (-10) and new number on their Pathway.

Each player takes it in turn, adding or subtracting multiples of ten from their number as they go along.
When all players reach the finish open the Finish Envelope to decide the winner.
It will either say 'The player with the largest number wins' or 'The player with the smallest number wins'.

The children compare their numbers to decide the winner.
Play again.





TO FINISH: We are now going to think about our learning.

Record a relevant example of today's learning on the postcard or in their book.
Discuss:
- **What have we been learning today?**
- **What skills did we use?**
- **What maths words/language have we been using?**

Celebrate successes within the lesson for each child.
Complete a 1stClass postcard to share with other adults and / or for the working wall.

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