##  <br> Maths <br> Counting in Tens

Focused education on life's walk

## Aim

- To count forwards and backwards in steps of ten from any number.


## Success Criteria

- I can use place value to spot a pattern.
- I can work out the next numbers in a sequence.
- I can explain what happens to the ones digit and the tens digit.
- I can use the pattern to help me count on and back from any number.


## Counting in Tens



## Remember It

What numbers are missing on the number lines? How do you know?


## Remember It



A is the odd one out.
There are 11 circles. B and C both have 10 shapes each.

## Counting in Tens from Zero



## Counting in Tens from Zero

## How much money is there?



10


20


30


There is 60 pence.

## Counting in Tens from Zero

Let's count in tens and watch what happens on the 100 square.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

What do you notice?

## Counting in Tens from Any Number

Can you count in tens to find the total?
What do you notice?


## 53

## Counting in Tens from Any Number

Can you count in tens to find the total number of eggs?


## Counting in Tens from Any Number

Each box contains 10 marbles.
Jack says there are 90 marbles.
Is Jack correct? Prove it!


Jack is incorrect. There are 45 marbles. Jack counted the ones as tens.

## Counting in Tens from Any Number

What happens if you count in steps of ten from a number other than 0 ?


Let's try counting in tens from 4.


## Counting in Tens from Any Number

Let's count in tens from 4 and watch what happens on the 100 square.

What do you notice?

The ones digit stays the same but the tens digit gets bigger.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

## Counting in Tens from Any Number

| What do you think <br> would happen if you <br> counted in tens <br> from 26? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |  |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |  |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |  |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |  |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |  |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |  |
|  | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |  |
|  | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

## Frog Leaps

They are not multiples of 10 .
The sequence is counting forwards in leaps of 10.

$$
14,24,34,44,54
$$

Can you see a pattern?
 How do you know?

## Frog Leaps

## What comes next in the sequence?

How do you know?


## Frog Leaps

What numbers should be marked next on the number line?
How do you know?


## Frog Leaps

10 pence is being added on each time.
How much money would be in the last box?


How much money would there be next in the sequence? How do you know?

## Frog Leaps

We can count in steps of 10 from any number.
When counting forwards in steps of 10 , we count on 10 more at a time.
The number gets bigger by 10 each time. The ones digit always stays the same.



53


63


73


Do you think the ones digit will stay the same when counting backwards in steps of 10? Discuss with a partner and prove it.

## Frog Leaps

We can also count backwards in steps of 10 from any number.


The number gets smaller by 10 each time. The ones digit always stays the same.

## Frog Leaps

## What comes next in the sequence?

How do you know?


## Frog Leaps

What numbers should be marked next on the number line?


## Frog Leaps

## What comes next in the sequence?

What do you notice about the tens and hundreds digits?

## $69,79,89,99,109,119,129$



Once we get past 100, we need to include a hundreds digit. The ones digit will still stay the same.

The tens digit keeps getting bigger.

## Frog Leaps

What comes next in the sequence?

## $72,82,92,102,112,122$



## Is Frankie Correct?

## Is Frankie correct? Prove it!

Use equipment to help you explain your ideas.

When counting in steps of 10 , the hundreds digit always stays the same.

Frankie is incorrect. Look what happens in the sequence:


## Is Frankie Correct?

## Is Frankie correct? Prove it!

Use equipment to help you explain your ideas.

Only the tens digit will change when counting forwards and backwards in steps of 10.

Frankie is incorrect. Look what happens in the sequence:

## 182, 192, 202, 212, 222

## Is Frankie Correct?

Is Frankie correct? Prove it!
Use equipment to help you explain your ideas.

I can only count in tens from the number 10 on this number line.


Frankie is incorrect. You can count in tens from any number on this number line. For example, you could count from 16.

## Lily Pad Hopping

Can you count in steps of 10 from any number?


## Diving into Mastery

Dive in by completing your own activity!


## Lily Pad Spinner

Work in pairs to complete the challenge the pointer lands on.

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