Calculator Week – Exploring number patterns Y5/6

For this week you will need:

- A calculator. There are calculators on phones, laptops and other devices. Here's a link to one: https://www.online-calculator.com/
- Paper, pencil and pens (you'll need to keep the work you do each day).

Day 1

Did you know you can make a calculator count for you by pressing the keys?

- Press 0 then + 100 = =
- Keep pressing = to keep counting
- Record the sequence. What do you notice?
- Which numbers do you find harder to read aloud?
- Which numbers can you read in more than one way? For example, 1200 can be read as 'one thousand two hundred' or as 'twelve hundred' or…
- You have counted in steps of one hundred. Now make the calculator count in other equal steps. Record your sequences.

Notes for adults working with groups of children

- Help the children to notice that the calculator is counting in equal steps
- Help the children to read the numbers they are unsure of, for example ten thousands, hundred thousands, millions etc.

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Day 2

- Look back at your number sequence for counting in steps of 100.

- What do you think will happen if you count in steps of 50?

- Make the calculator count in steps of 50 and record the sequence. Is this what you expected? What do you notice?

- Can you write something using mathematical symbols to show the connection between counting in steps of 100 and counting in steps of 50?

- Find some measuring equipment in the kitchen or online marked in one hundreds or fifties.

- Think of other contexts where you might be counting in steps of 100 or 50.

- In what way is counting in steps of 50 and 100 like counting in steps of 500 and 1000?

Notes for adults working with groups of children

- Help the children to notice that the calculator is counting in equal steps and the doubling and halving relationship between the two number sequences which can be represented using mathematical symbols.
- Help the children to read the numbers they are unsure of, for example ten thousands, hundred thousands, millions etc.

Tweet pictures of work referencing @BabcockLDPmaths with the hashtag #BabcockMathsAtHome

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Day 3

- Look back at your number sequence for counting in steps of 100 and steps of 50.

- What do you think will happen if you count in steps of 25?

- Make the calculator count in steps of 25 and record the sequence. Is this what you expected? What do you notice?

- Can you write something using mathematical symbols to show the connection between counting in steps of 100 and counting in steps of 25?

- In what way is counting in steps of 25 like counting in steps of 250?

- Find contexts where it would be useful to understand and use counting in steps of 25 or 250.

Notes for adults working with groups of children

- Help the children to notice that the calculator is counting in equal steps and the relationships between the number sequences which can be represented using mathematical symbols.

- Help the children to read the numbers they are unsure of, for example ten thousands, hundred thousands, millions etc.

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Day 4

- Look back at your number sequence for counting in steps of 100.
- Make the calculator count in steps of 20 and record the sequence. Is this what you expected? What do you notice?
- Can you write something using mathematical symbols to show the connection between counting in steps of 100 and counting in steps of 20?
- In what way is counting in steps of 20 like counting in steps of 200? Write an explanation and show it to someone else.
- Find contexts where it would be useful to understand and use counting in steps of 20 or 200.

Notes for adults working with groups of children

- Help the children to notice that the calculator is counting in equal steps and the relationships between the number sequences which can be represented using mathematical symbols.
- Help the children to read the numbers they are unsure of, for example ten thousands, hundred thousands, millions etc.

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Day 5

- Think about some of the equal steps you've counted in this week: 100, 50, 25 and 20. Look back at your work and circle the numbers that appear in all four of the sequences.

- What do you notice about these numbers?

- What other numbers would appear in all of the sequences? Can you make a statement about the numbers that would appear in all four sequences that explains it to someone else?

- Now choose a different number, one that you are interested in.

- Make your calculator count in equal size steps of your chosen number.

- Write down the sequence; what do you notice? Can you predict bigger numbers that would be shown if you kept pressing =? How do you know?

- Tell someone else what you have noticed.