Choccie quarters

Focus of activity: Counting in ¼s; Finding ½, ¼ and ¾ of amounts.

Working together: conceptual understanding
- Give each child a strip of paper and ask them to fold it in half and then in half again.

- *Open up your piece of paper. Show me half.* Chn fold it to show ½. *Now show me ¼.* Chn fold again to show ¼. *Now show me ¾.* Chn open the piece of paper and hide ¼ to show ¾. *Now show me two quarters.* Point out that two quarters is the same as one half.
- Ask chn to put their strips together. Count along them: *One quarter, one half, three quarters, one whole piece. One and a quarter, one and a half, one and three quarters, two whole pieces. Two and a quarter…*
- Ask each child to take their own strip back.
- Give each child 12 'chocolate buttons' (or counters) and ask them to share them equally between the four spaces. *How many are in each space? If you were to eat a ¼ of the 12 chocolate buttons, how many would you eat? What if you ate two quarters? What other way can we say this fraction? How many chocolate buttons are in three quarters? And four quarters?*
- Record:
    - ¼ of 12 is 3
    - ½ of 12 is 6
    - ¾ of 12 is 9
    - $^4/_4$ of 12 is 12.
- Repeat for 20 'chocolate buttons'.

Up for a challenge?
What's a quick way of finding a ¼ of a number? Remind chn how they folded the strip in half, and in half again at the beginning of the session. *So to find ¼ of 20, we could have halved 20, and then halved 10. Use halving twice to work out a quarter of 40. Imagine you had 40 chocolate buttons, how many would be in each quarter of your strip?* Ask chn to write that number in each part of their fractions strip. *Does the total of each quarter add up to 40?*

10	10	10	10
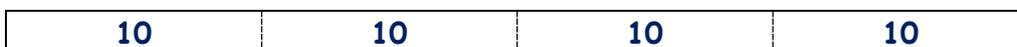
Now it's the children's turn:
- Chn find ¼, ½ and ¾ of amounts by sharing chocolate buttons between quarters on a cake outline (see child instructions).
- Go round the group and mark their answers as they work them out, e.g. after the first group of three questions.

S-t-r-e-t-c-h:
If chn cope well, ask them to think of other numbers of chocolate buttons they could place on the cake, so that there is the same number of buttons in each quarter. They are not allowed to cut up any buttons!

Things to remember

How many quarters are the same as one half? Remember that to find a quarter of an amount, we can halve, and halve again. Each quarter is one of four <u>equal</u> parts. Ask chn whether they would prefer ¼ of 20 chocolate buttons, or ½ of 8 chocolate buttons and why. If necessary, show both calculations using counters.

You may want to add something that has emerged from the activity. This may refer to misconceptions or mistakes made.

Resources	Outcomes
• Strips of paper for each child, e.g. cut from a piece of A4 paper. Each strip must be the same length • Pots of counters (or a pack of real chocolate buttons for each child) • Cake outline (see child instructions)	1. Chn can find ¼, ½ and ¾ of amounts (whole number answers). 2. Chn understand that $^2/_4$ is equivalent to ½. 3. Chn begin to see that we can share numbers in the 4 times table into quarters (whole number answers).

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