

100s neighbours

Activity 1

Focus of activity: Placing 3-digit numbers on landmarked lines.

Working together: conceptual understanding

- Sketch a 0 to 100 line on the flipchart, with no marks between 0 and 100. Ask a child to mark and label 53 on the line, explaining how they are doing so, e.g. it's a bit after half way.
- Cross out 0 and write 100. Cross out 100 and write 200. *Now this line is a 100 to 200 line. We need to change 53 to a different number. What number should it be?* Cross out 53 and write 153.
- Cross out 100 and write 200. Cross out 200 and write 300. *Now this line is a 200 to 300 line. We need to change 153 to a different number. What number should it be?* Cross out 153 and write 253.
- Repeat, this time change the line so it's from 400 to 500, and then 700 to 800, changing the number marked on the line each time.
- Shuffle a set of 100s cards, a set of 10s cards and a set of 1s cards. Place down in three piles. Ask a child to take a card from each pile to make a 3-digit number, e.g. 624. They read it to the rest of the group. Sketch a 0 to 1000 line, with 'landmarks' of 100 (0, 100, 200, 300... 1000). *Where does 624 belong on this line?* E.g. between 600 and 700, and closer to 600 than 700.
- *Now we are going to zoom in on this line. What multiple of 100 is before 624? What multiple of 100 is after 624? In other words, which numbers are the '100s neighbours'?* Sketch a line from 600 to 700; ask a child to mark 624 on the line. *Use your skill in placing numbers between 0 and 100 to help you.* Draw out how 624 belongs in the same place between 600 and 700 as 24 does between 0 and 100.
- Repeat for each child.

Up for a challenge?

Sketch a long 0 to 1000 line with no other marks between 0 and 1000. *What number belongs half way between 0 and 1000?* Mark this on the line. Challenge children to place the 3-digit numbers made on this line.

Now it's the children's turn:

- Children work in pairs to shuffle a pack of 0–9 digit cards, and take three to make a 3-digit number. They discuss which two multiples of 100 it lies between, sketch a line between the two multiples of 100 and mark on the number. They repeat this at least 6 times.
- Go round the group and mark their number lines. Are they using their skills in placing 2-digit numbers between 0 and 100 to place 3-digit numbers between multiples of 100?

S-t-r-e-t-c-h:

If children cope well, ask them to draw a 0 to 1000 line, making it as long as they can. They mark at least three of the 3-digit numbers they made on this line.

Things to remember

Remember that we can use our skills in placing 2-digit numbers on 0 to 100 lines to place 3-digit numbers on lines between 100s neighbours. Sketch a line from 500 to 600 and mark on 525, 550 and 575 but do not label the marks. What three numbers do you think I've marked on this line? Stress that any guesses within 10 of your numbers would be really good guesses.

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

Resources	Outcomes
<ul style="list-style-type: none">• 100s, 10s and 1s place value cards• 0 to 9 digit cards	<ol style="list-style-type: none">1. Children can place 3-digit numbers on lines marked in 100s.2. Children begin to place 3-digit numbers on an empty 0 to 1000 line.

100s neighbours

Activity 1

Work in pairs

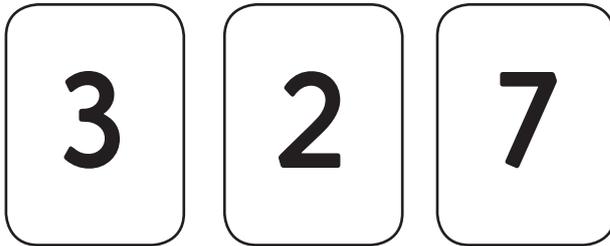
Things you will need:

- 0 to 9 digit cards
- A pencil



What to do:

- Shuffle a pack of 0–9 digit cards. Take three to make a 3-digit number.
- Which multiples of 100 are the 100s neighbours of your number?
- Draw a line between these two multiples of 100.
- Mark your number on the line.
- Repeat at least six times.
- Remember to use your skill in placing 2-digit numbers between 0 and 100 to place your 3-digit numbers between 100s neighbours.



S-t-r-e-t-c-h:

Draw a 0 to 1000 line, making it as long as you can. Mark at least three of the 3-digit numbers you made on this line.

Learning outcomes:

- I can place 3-digit numbers on lines marked in 100s.
- I am beginning to place 3-digit numbers on an empty 0 to 1000 line.