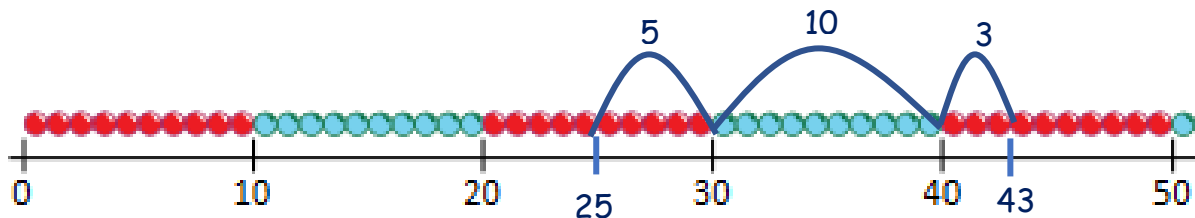


## Hop, jump and hop

**Focus of activity:** Subtracting pairs of 2-digit numbers either side of a multiple of 10, e.g.  $54 - 37$ , using counting up (Frog).

### Working together: conceptual understanding

- Give each child a sheet of beaded and landmarked lines (see child instructions).
- Write  $43 - 25$ . We're going to use Frog to help us to work out the answer to this subtraction.
- Frog starts on the 'baby' number and hops to the next 10s number. So he's going to start on 25, and hop to 30. Ask children to draw a mark after the 25<sup>th</sup> bead on the first line and label it 25. How many more beads to reach 30? Ask children to draw a hop from after the 25<sup>th</sup> bead to after the 30<sup>th</sup> bead. Now Frog will jump to the next 10s number. Ask chn to draw a jump from 30 to 40. How big is this jump? Now Frog hops to 43. How big is this hop? Children draw a hop from 40 to 43 and label the hop.



- How far did Frog have to go from 25 to 43? Complete the subtraction. Frog did a hop, a jump of 10, then a hop.
- Repeat for  $72 - 56$  on the next beaded line. Point out the pair to 10: 6 and 4 to make the next 10s number.
- Pairs to 10 and counting in 10s are proving to be really helpful today!

### Up for a challenge?

- Write  $54 - 38$ . Ask children to mark 38 on the first landmarked line (line without beads). Do they agree with their neighbour where 38 belongs on this line? Draw out through discussion that 38 lies between 30 and 40, but closer to 40. *Imagine 10 beads in between 30 and 40 to help. What's the next 10s number? What do we add to 8 to make 10? So what do we add to 38 to make 40?* Ask what Frog will do next. Children draw a jump of 10 to reach 50. *And what does Frog do now?* Ask children to mark on 54, and draw a hop of 4 from 50 to 54. *So what is the answer to the subtraction?*
- Repeat for  $65 - 47$  on the next landmarked line. Point out how we can use the number fact  $7 + 3 = 10$  to help.

### Now it's the children's turn:

- Children practise using Frog to subtract, using beaded lines to help.
- Go round the group and mark their subtractions as they do them, e.g. initially after two examples.

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

If children cope well, ask them to use landmarked lines to work out the subtractions.

### Things to remember

Remember that Frog hops to the next 10, jumps to the next 10s number, then hops to the bigger number. We can use our pairs to 10 to work out what we need to add to a 2-digit number to make the next 10. We don't need to count on in ones! Ask for a volunteer to choose one of their subtractions and describe how they worked out the answer. As they do so, sketch a number line jotting to show the steps.

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

<b>Resources</b>	<b>Outcomes</b>
<ul style="list-style-type: none"><li>• Sheets of beaded lines and landmarked lines (see child instructions, copy onto A3 paper if possible)</li></ul>	<ol style="list-style-type: none"><li>1. Children can use counting up (Frog) to subtract numbers with a small difference, e.g. <math>54 - 37</math>, using a beaded line to help.</li><li>2. Children begin to use counting up (Frog) to subtract numbers with a small difference, e.g. <math>54 - 37</math>, using a landmarked line to help.</li></ol>

## Hop, jump and hop

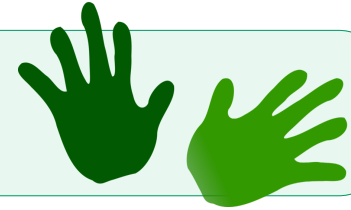
*Work in pairs, but write on your own sheet*

### What to do:

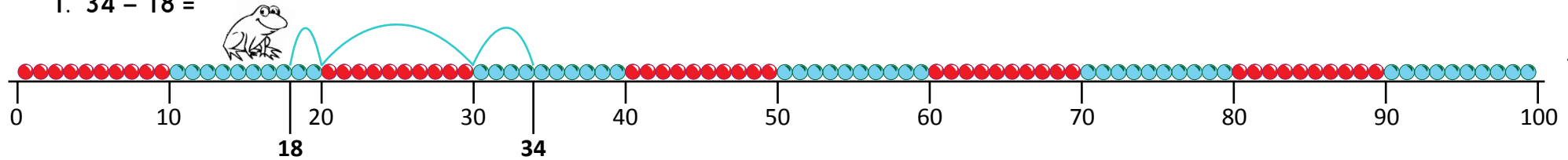
- Mark the 'baby' number on the line.
- Use Frog to hop to the next 10s number.
- Jump to the next 10s number.
- Hop to the bigger number.
- Write the answer to the subtraction.

### Things you will need:

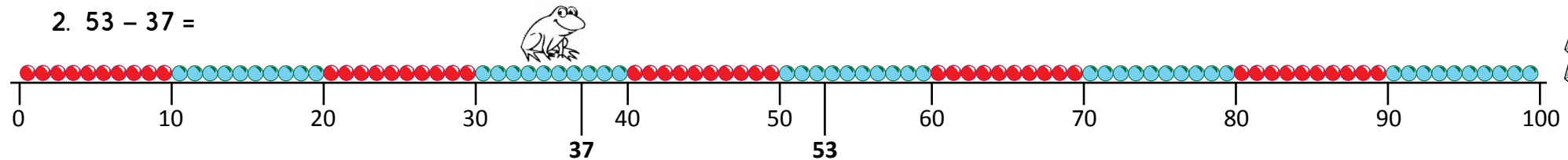
- A pencil
- A sheet of beaded lines or landmarked lines



1.  $34 - 18 =$



2.  $53 - 37 =$



- Now use Frog to work out at least three of these subtractions on the beaded lines.

$42 - 26$

$81 - 68$

$65 - 49$

$52 - 35$

$93 - 76$

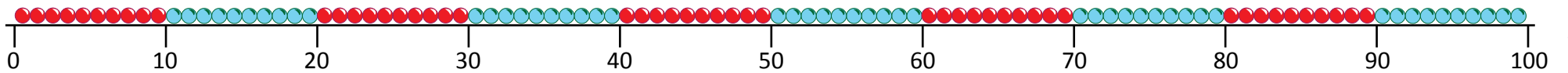
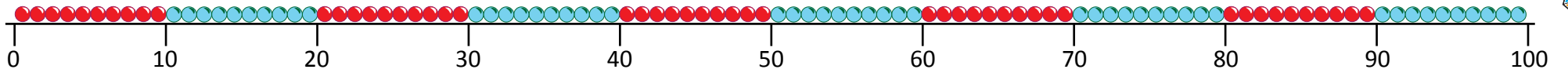
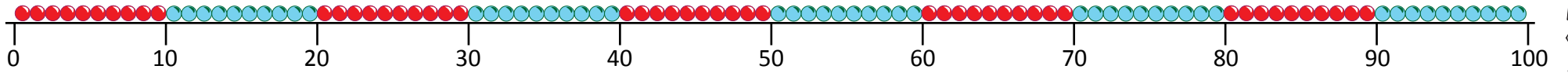
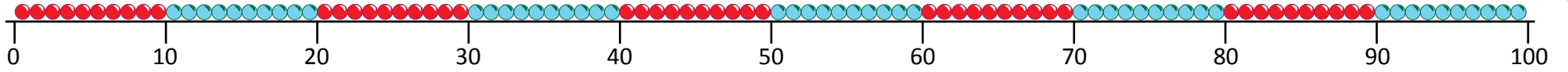
### *S-t-r-e-t-c-h:*

Use landmarked lines instead of beaded lines.

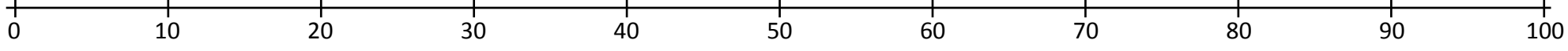
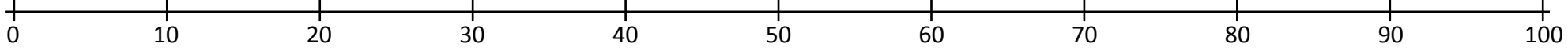
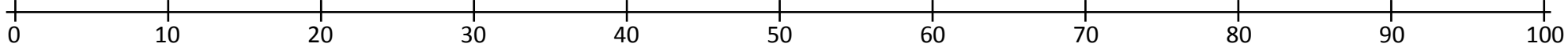
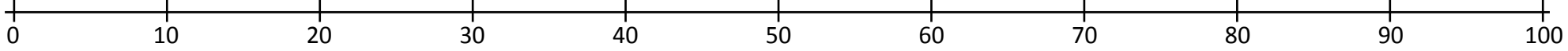
### Learning outcomes:

- I can use Frog to subtract numbers with a small difference, e.g.  $53 - 37$ , using a beaded line to help.
- I am beginning to use Frog to subtract numbers with a small difference, e.g.  $53 - 37$ , using a landmarked line to help.

# Hop, jump and hop



**Hop, jump and hop**





# Hop, jump and hop

