



## Number Lines

What you will need:

- String or sticks
- Chalk
- Natural items (these can be replaced by lego or small toys)

Number lines can be used to help children represent and understand the place each number has in the counting system. They can also be used for counting forwards and backwards and for a method of representing addition and subtraction. Below you will see how to use a number line with your child for each of these things.

### Number Representation & Counting

If your child is still developing their understanding of number and counting skills (especially 0-20) then using a number line like this is a fun way to practise! Start by using string or sticks to create the actual line, then use chalk to put on marker points. You decide whether to go up to 10 or 20. See the photo below for an example.



Then ask your child to find things in your outdoor space to place on the number line (you could also use lego or small toys in the house to do this) to represent the numbers. Challenge them to represent the numbers in different ways e.g using a bundle of sticks for 10. After this practise counting with them forwards and backwards along the number line.





# Number Lines

## Addition & Subtraction

### Addition

Where your child is in their learning will dictate the numbers you use for this activity. Here are the progression steps for addition:

$$7 + 4 = \textbf{1-digit + 1-digit}$$

$$13 + 6 = \textbf{2-digit + 1-digit}$$

$$14 + 20 = \textbf{2-digit + tens numbers}$$

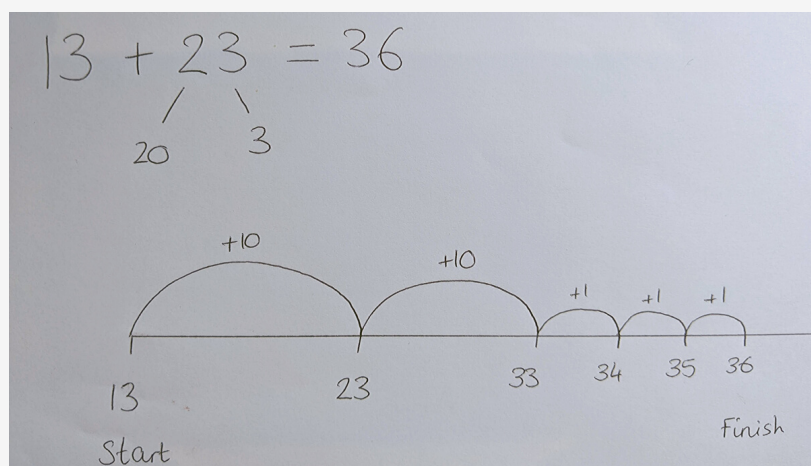
$$24 + 32 = \textbf{2-digit + 2-digit, but no crossing over tens boundary}$$

$$35 + 37 = \textbf{2-digit + 2-digit, with crossing over tens boundary}$$

For year 1 begin by checking your child can add two numbers up to 20 before going higher, in year 2 adding two numbers up to 100.

For this activity, follow these steps and then repeat for each calculation you practise! See the photo below for an example of a completed number line.

1. Give your child a calculation
2. Ask them to separate the second number into tens and ones
3. Let your child create the number line (using either string or sticks) and write on the starting number
4. They will need to stand at the start and jump along the number line for each ten and stepping along for each ones. E.g 14 would be 1 jump and 4 steps.
5. Fill in the numbers along their number line as they are completing the calculation.





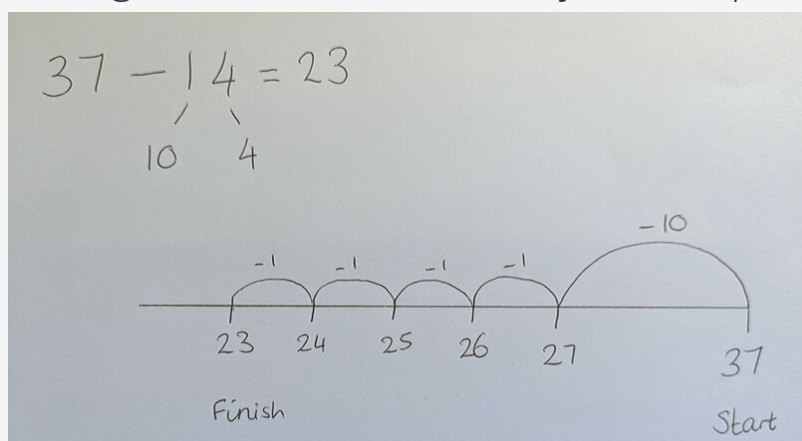
# Number Lines

## Subtraction

The progression for subtraction is the same as for addition.

For this activity, follow these steps and then repeat for each calculation you practise! See the photo below for an example of a completed number line.

1. Give your child a calculation
2. Ask them to separate the second number into tens and ones
3. Let your child create the number line (using either string or sticks) and write on the starting number
4. They will need to stand at the start and jump along the number line for each ten and stepping along for each ones. E.g 14 would be 1 jump and 4 steps.
5. Fill in the numbers along their number line as they are completing the calculation.



## Extend the addition and subtraction learning:

- Draw the number line for your child, but leave some gaps where the numbers should be, ensuring you have put the calculation and jumps at the top for them to refer to. Ask your child to fill in the gaps. This can work for addition or subtraction.
- Draw the number line and put the numbers in, but leave the jumps blank, can your child fill these in?
- Spot the mistake; fill out a number line incorrectly, can your child spot the error and correct it for you?

