Five Frames

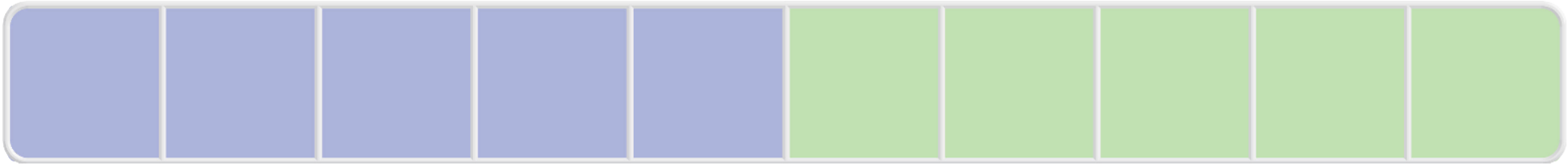
Structuring Concrete Materials

Using length based representations such as Bond Blocks, Ten Strips, Number Tracks and Number Lines helps students increase their understanding of the relationships between numbers.

Once students can count from one to ten using the first three counting principles, organise countable manipulatives to develop number line thinking. To do this the manipulative should be organised so that students can identify how many **without having to count the collection from one**, but can instead look for relationships between quantities.

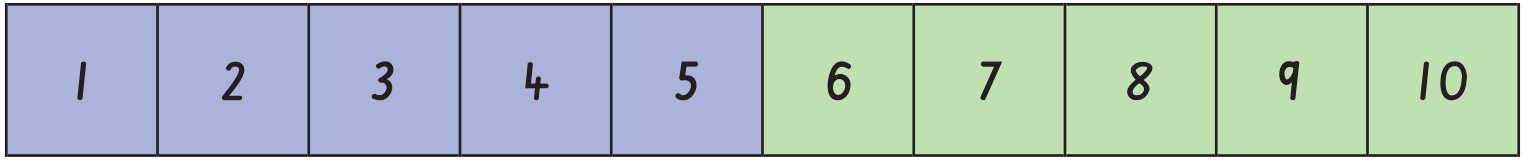
For example, this ten strip is coloured in two fives so as quantities to ten can learn to be identified without counting from one.

Ten Strips



Number Track

One of the first representations of number, linked to the concrete material, is a number track. Each object is represented by one cell on the track.
The number representing the set is written in the space inside the cell. When counting on a number track students say the number as they touch the number inside the cell.



Number Lines

Next, discrete countable materials such as cubes and Bond Blocks are linked to number lines.

When using number lines, the number representing the set is written above or below **the vertical line** that marks the **end of the length of the Bond Block** (not in the space between the vertical marker lines as per a number track). For this reason the number line requires **zero** to be placed, marking the start of the block. Students say the number as they **touch the vertical marker indicating the end of the length of the Bond Block.**

When locating whole numbers on a number line it is **incorrect** to point to the space between the whole numbers and say the whole number (as per a number track).
For example, in this diagram the finger is pointing to a number between five and six, approximately five and one half.