

Big Numbers on a Number Line

Instructions

Photocopy, laminate and cut out the cards below.

Students should work in small groups.

Place a 1m ruler (or tape measure) on the table. (You could use a length of string instead, but by using the ruler you will also highlight some nice place value and metric system relationships). Have students place the cards numbered between 0 and 1000 along the metre ruler so that they are correctly positioned.

You can have some useful discussion about how close 0 and 1 are to each other (and even 0 and 10), together with 99 and 100, and 999 and 1000. You should highlight that 100 is only one-tenth of the way along, and so is very small in comparison to 1000. You can also highlight benchmarks like 500 (half-way), 667 (about two-thirds of the way), and 750 (three-quarters of the way).

Now allow students to discuss where the remaining “Don’t include me just yet” cards should go. 2000 should be another metre’s length away, 10000 will be at the 10 metre mark (which makes 100 look very tiny indeed), 100000 should be 100m from the start of the ruler (perhaps way out on the oval), and 1000000 will be 1km away. This discussion should help students appreciate the magnitude of some of these numbers ... and note that we haven’t even got up into the billions yet!

0	20	3	120
75	199	920	50
750	999	100	800

667	500	1000	Don't include me just yet 2000
Don't include me just yet 10 000	Don't include me just yet 1 000 000	Don't include me just yet 100 000	10
99	1	450	950