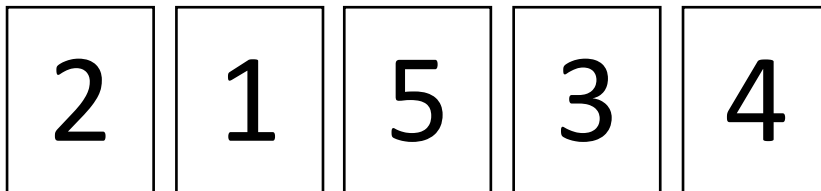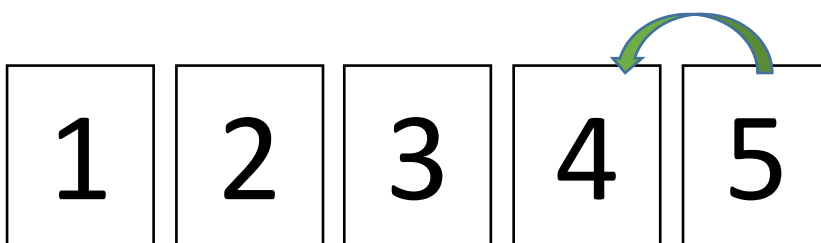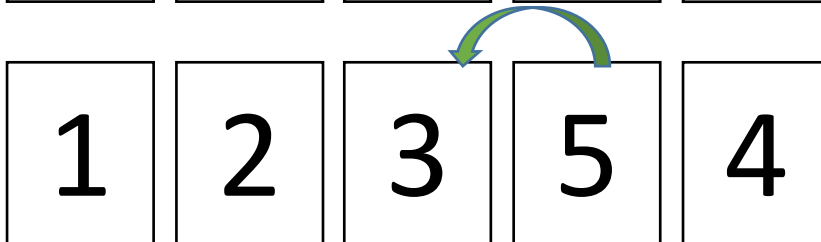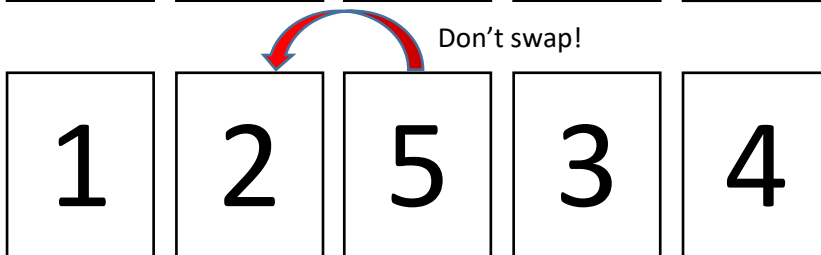# Bubble sorting in class

As we saw with playing cards in the video, it is simple to demonstrate a bubble sort by simply swapping pairs of values if they are in the wrong order, and repeating until no more swaps are made.

This can be run as an activity in class by printing some A4 sheets with numbers on, and getting pupils to hold the numbers in a line. Ask them to randomly shuffle up E.g.

| 2 | 1 | 5 | 3 | 4 |

Then, proceed along the line and ask pairs of children whose numbers are in the wrong order to swap places, eg.:

| 1 | 2 | 5 | 3 | 4 |

Don't swap!

| 1 | 2 | 5 | 3 | 4 |

| 1 | 2 | 3 | 5 | 4 |

| 1 | 2 | 3 | 4 | 5 |

RED arrow – don't swap this pair, they are already in the correct order

GREEN arrow – swap this pair, as they are in the wrong order.

Running through again, no more swaps are made, so we can stop. If we make a new swap, we have to run through again, until no more swaps are made.

- What do the children notice about the bigger numbers?
  - They **bubble up** to the top of the list – like the 5 in the example above – hence the name of the sort.