Selection Sort
(one of the simplest sorting algorithms)

3	10	4	6	8	9	7	2	1	5

Search through the array, find the largest value, (10) and exchange it with the value stored in the last array location (5)

3	**10**	4	6	8	9	7	2	1	**5**

3	**5**	4	6	8	9	7	2	1	10

Find the second-largest value in the array (9), and exchange it with the value stored in the second last array location (1).

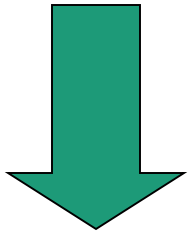
3	5	4	6	8	**9**	7	2	**1**	10

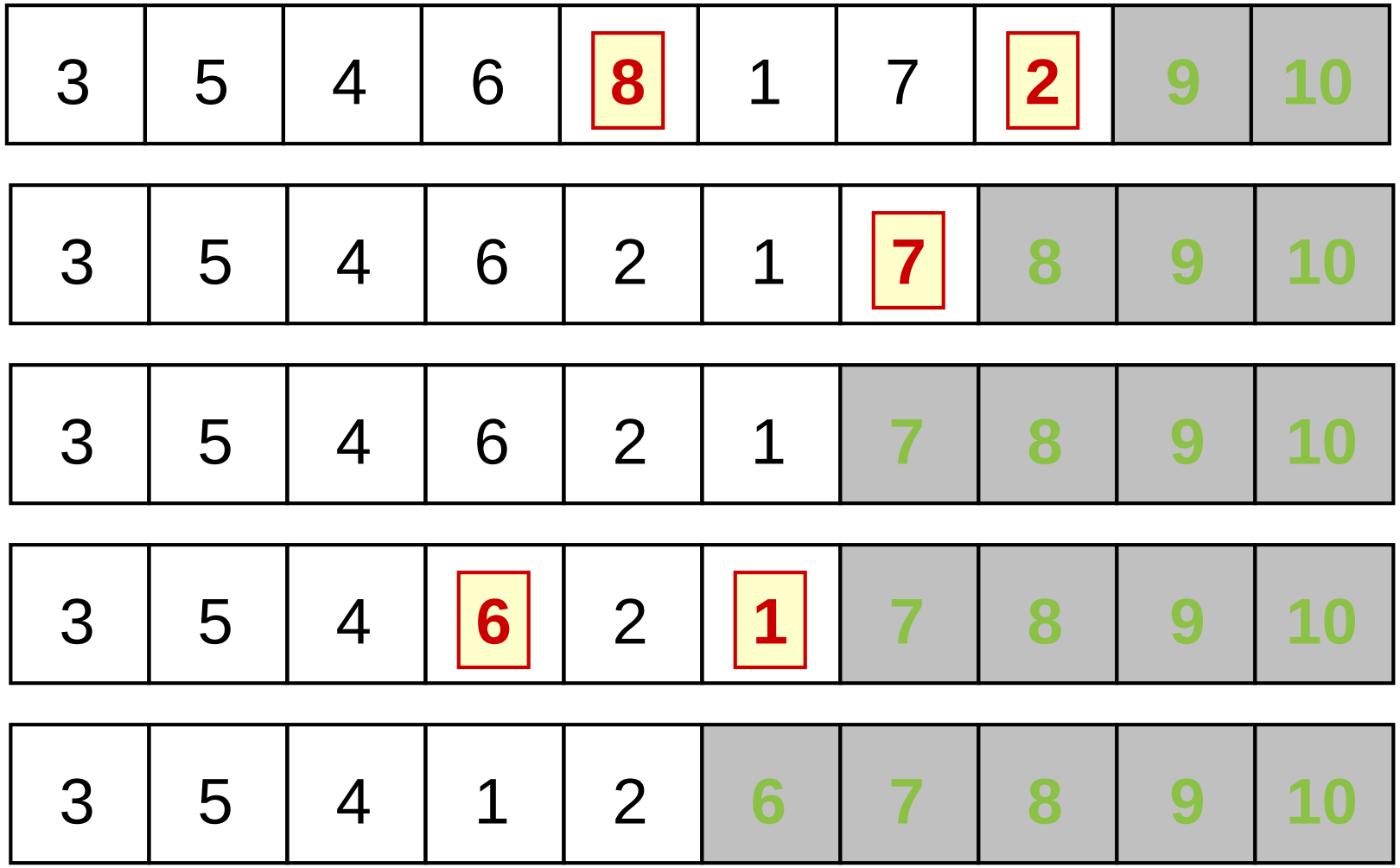
3	5	4	6	8	**1**	7	2	9	10

3	5	4	6	8	1	7	2	9	10

The last two blue elements will not be changed further because they are already the largest and the second largest elements in the array.

Now, repeat the “select and exchange” process…




3 5 4 6 8 1 7 2 9 10
3 5 4 6 2 1 7 8 9 10
3 5 4 6 2 1 7 8 9 10
3 5 4 6 2 1 7 8 9 10
3 5 4 1 2 6 7 8 9 10


3 5 4 1 2 6 7 8 9 10
3 2 4 1 5 6 7 8 9 10
3 2 4 1 5 6 7 8 9 10
3 2 1 4 5 6 7 8 9 10
3 2 1 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10