

Ordering Numbers Lesson plan

Subject: Maths	Lesson Title: Ordering numbers
Date:	Time Span:
Year Group:	Group Size: 30

Desired Learning Outcomes

To be able to order numbers from lowest to highest

Key Language:

More, less, higher, lower, smallest, largest, compare and order

Use of ICT:

Place Value ITP
Ordering numbers game for extension

Assessment (Make reference to each section of the lesson)

Intro – See if children are able to order numbers from lowest to highest on their whiteboards

Main – Mark children's work as they complete it. Sit with any children who are struggling, bringing them back to the carpet if necessary. If still unsure by end of lesson sit with TA during plenary.

Plenary – Can children arrange themselves in to the correct order from lowest to highest? Can they explain how they knew where to stand?

Use of Other Adults

TA to work with lower ability children during main part of lesson

TA to sit and continue working with children (of any ability) who struggled in plenary

Anticipated Misconceptions/Difficulties

Children not understanding that numbers in the tens column are worth more than numbers in the units column or that numbers in the hundreds column are worth more than numbers in the tens column

Children not understanding that numbers with more digits are always worth more e.g. 600 is worth more than 60

Resources

<https://www.ictgames.com/mobilePage/arrowCards/index.html> (if the link does not work, Google 'place value interactive teaching tool' to find something similar) to compare the numbers

Number lines from [http://www.sparklebox.co.uk/2576-](http://www.sparklebox.co.uk/2576-2580/sb2579.html#.UFmg1BgQmPo)

[2580/sb2579.html#.UFmg1BgQmPo](http://www.sparklebox.co.uk/2576-2580/sb2579.html#.UFmg1BgQmPo) (laminated and cut up, and put in places where less able children sit)

Pupil whiteboards and pens

Numbers laminated and cut up for plenary

Introduction	Time
<p>Revise model from previous lesson on comparing two numbers and using the symbols $<$, $>$ and $=$</p> <p>Explain that today instead of comparing just two numbers, we are going to be comparing more than two numbers at a time and putting them in order.</p> <p>Revise how the first thing that you need to do is to see how many digits each number has. If one number has more digits than another, the one with more digits is the highest e.g. 60 is higher / more than 6, and 600 is greater than 60. Model how to decide how to re-order 3 such numbers e.g. 20, 200 and 2</p> <p>If two numbers have the same number of digits e.g. 45 and 72, first you need to look at the number furthest on the left e.g. the 4 in 45 or the 7 in 72, because the tens are worth more than the units. Model how to re-order 3 such numbers e.g. 43, 81, 56</p> <p>If two numbers have the same number furthest on the left e.g. 45 and 41, then you need to look at the next number along and compare them e.g. the 5 in 45 and the 1 in 41. Model how to re-order 3 such numbers e.g. 47, 41 and 44.</p> <p>Repeat these explanations for numbers with 3 digits.</p> <p>Put a series of 3-digit numbers on the board. Ask more able talk partners (if children are sat in mixed ability pairs) to explain to their partner how they would decide which order to put them in</p> <p>Put a series of 2-digit numbers on the board. Ask less able talk partners to explain to their partner how they would decide which order to put them in.</p> <p>Ask less able children to begin work. Model for them how to use the number lines to order the numbers.</p> <p>Put a series of numbers on the board. Ask remaining children to order them from lowest to highest. Remind children not to show their boards until you ask them (to prevent copying). Repeat this until most children seem confident in their understanding</p> <p>With children who are still unsure keep them on the carpet and go through with them again. Children who seem more secure to begin their independent work</p>	15 mins
<p>Main (including differentiated tasks)</p> <p>Lower ability – Use a number line to order numbers from 1 to 20 from lowest to highest</p> <p>Middle ability – Order 2-digit numbers up to 100</p> <p>Higher ability – Order 3-digit numbers up to 1,000</p> <p>Extension – Order 4-digit numbers up to 10,000</p> <p>Extension – Children who finish early to play game on ordering numbers at https://www.ictgames.com/mobilePage/countingCaterpillar/index.html as a reward and to reinforce the lesson</p>	20 mins
<p>Plenary</p> <p>Arrange children in to house teams. Give each child a number. Each house team needs to organise themselves so that they are in order from lowest to highest in a race. When children are in finished, ask them how they knew where to stand. Praise children for using words like digit, lower, higher, smaller, larger</p>	10 mins