








# Number and Place Value: Ordering Numbers Differently

<b>Aim:</b> Compare and order numbers from 0 up to 100; use < > and = signs.  To order numbers in different representations.	<b>Success Criteria:</b> I can order numbers in different representations from smallest to greatest.  I can order numbers in different representations from greatest to smallest.	<b>Resources:</b> <a href="#">Lesson Pack</a> Base ten blocks Hundred squares
	<b>Key/New Words:</b> Numbers 0-100, up, back, zero, teen, two-digit, represent, tens, ones, greater, less, equal, larger, smaller, quantity, order.	<b>Preparation:</b> <a href="#">Extended Place Value Cards 0-100</a> – one per pair <a href="#">Ordering Numbers Represented Differently Activity Sheet</a> – one per child <a href="#">Ordering Numbers in Different Representations Challenge Cards</a> – one per pair <a href="#">Diving into Mastery Activity Sheets</a> - as required

**Prior Learning:** It will be helpful if children have a secure understanding of [ordering numbers to 100](#).

## Learning Sequence

	<b>Remember It:</b> Children use their knowledge of place value and ordering numbers to complete the challenges featured on the <a href="#">Lesson Presentation</a> . Children recap ordering two-digit numbers in different ways (from smallest to greatest and greatest to smallest). Children record their results on whiteboards.	
	<b>Ordering Numbers:</b> Read through the slides on the <a href="#">Lesson Presentation</a> to review the concept of ordering numbers. Ensure that the children use vocabulary such as 'greatest' and 'smallest'. Use number grids, place value blocks and place value to check answers. Introduce the concept of ordering numbers when they are represented differently. Work as a class to order numbers represented in different ways from smallest to greatest and greatest to smallest.	
	<b>Order It Again!</b> Children work in pairs using the <a href="#">Extended Place Value Cards 0-100</a> . They select five cards at random, then work together to order the cards. (These will need cutting out and mixing up beforehand.) <b>Can the children order the representations from smallest to greatest and greatest to smallest?</b>	
	<b>Ordering Numbers Represented Differently:</b> Children complete the differentiated <a href="#">Ordering Numbers Represented Differently Activity Sheet</a> , using knowledge of place value to order two-digit numbers represented in different ways from smallest to greatest and greatest to smallest. <b>Can the children order the representations from smallest to greatest and greatest to smallest?</b>	
	Children order two-digit numbers up to 100 represented in different ways, and answer true or false questions with opportunities to explain reasoning. Children may use base ten blocks for support.	
	Children order two-digit numbers up to 100 represented in a range of different ways, and answer true or false questions with opportunities to explain reasoning.	
	Children order two-digit numbers up to 100 represented in a greater range of different ways, answer true or false questions with opportunities to explain reasoning and create their own sequences of numbers represented in different ways.	

	<p><b>Diving into Mastery:</b> Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.</p> <p> Children order numbers in different representations from smallest to greatest and greatest to smallest.</p> <p> Children look for a mistake in numbers that have been ordered and correct the mistake, representing the numbers in different ways.</p> <p> Children solve 'find all possibilities' problems involving ordering numbers in the context of length and time.</p>	
	<p><b>Challenge Time:</b> Children work in pairs to solve the reasoning problems about ordering numbers on the <b>Lesson Presentation</b>. Encourage children to explain their answers and prove them. Alternatively, children could complete the challenges on the <b>Ordering Numbers in Different Representations Challenge Cards</b>.</p>	

### Exploreit

- Orderit:** Children work in groups with small manipulatives, base ten blocks or coins. Each child takes a handful of objects and count them. The group must then sort themselves into order from greatest to smallest, or from smallest to greatest.
- Createit:** Children work in pairs using the [Ordering Numbers in Different Representations](#). They select two cards at random to use as their start and end point. They create a sequence between these numbers using as many representations as possible.
- Learnit:** Children will find this visually exciting [Ordering Numbers in Different Representations](#) a useful tool for supporting understanding within number and place value.