

Lesson Plan Chapter 4

In practice

The lesson plan which follows was used to support a group of children early in their understanding of place value. I wanted to introduce them to a number line as they have experience in moving along number tracks. I am also using a counting stick to support the children in developing mental images of number lines to help them develop mental methods for calculating.



The plan includes ICT to support the children's learning. The programme described in the case study is available on the companion website which accompanies the book. You may wish to explore the 'Zoom Number Line' program on the website before reading the lesson plan. Following the plan is an evaluation of the lesson which explores how successful the plan was in supporting the children to develop their knowledge, skills and understanding.

Topic: Understanding Place Value

Age Group: Lower Primary

Objectives:

Explain what each digit represents in whole numbers and decimals up to two places and partition, round and order these numbers
Relate numbers to their position on a number line

Key vocabulary:
Equal to,
ascending,
descending, < ,>

Context: This is the second lesson in a series of five looking at place value, ordering and rounding. In the last lesson the pupils used digit cards to create numbers up to seven digits and named the numbers and wrote them down. All the group could recognise numbers up to four digits but found it difficult to name the numbers with five digits and above. One group worked with the TA naming the numbers and she acted as a scribe for them. A particular difficulty was numbers containing zeros, such as 10,007
The children often work in numeracy partners – that is, one child achieving at expected levels or above paired with a child achieving below expected levels

<p>Resources Ten-sided dice Digit cards</p>	<p>Starter activity: I will use a counting stick. Initially we will count in 10s, starting at 0. Then we will count in 100s, then 1000s up to counting in 100,000s. I will then throw the 10 sided dice once to generate a number and we will count up in 10s from this number. I will repeat this with a two-digit number counting in 100s and then a three-digit number counting in 1000s and then 10,000s. I will use my 'numeracy partners' for this activity. They will take it in turn to count on</p>	
<p>Main activity</p>	<p>Teacher</p> <p>On the whiteboard draw _____ < _____ _____ > _____</p> <p>Use a single set of 0–9 digit cards to generate a digit, one digit at a time. The pupils sit with their numeracy partners and have to place each digit to try to make the expression correct</p>	<p>Pupil activity</p> <p>Discuss placing each digit in pairs – understand the importance of placing the digits appropriately showing an understanding of place value. Recognise the 10,000 column in order to name the numbers. Respond to my prompts in order to name the numbers</p>
<p>Group activity: Children operating above expected levels</p>	<p>Children generate six-digit numbers using 10-sided dice. They place these in ascending order and write the numbers also in ascending order</p>	<p>Assessment: I will point to digits and ask the children what the value of the digit is. I will write down numbers such as 120,002 and ask what the zeros represent. I will ask them to think what the values of some seven- digit numbers might be</p>
<p>Group activity: Children operating at expected levels</p>	<p>I will give these children the digit cards 0, 2, 5, 6, 9 and ask them to make as many different five digit numbers as they can. They should then place them in ascending order</p>	<p>I will ask the children how they make 'big' and 'small' numbers. What is their strategy for making the largest possible number?</p>

<p>Group activity: Children operating below expected levels</p>	<p>These children will use the digits 0, 3, 5, 8 to generate four digit numbers and then order these numbers</p>	<p>I will ask the TA to support this group. She will pay particular attention to the naming of the numbers and the effect of zero in a column</p>
<p>Plenary: I will use the zoom number line software to create a number line from 0 to 10,000. We will generate any four-digit number using digit cards and I will ask individuals to come to the interactive whiteboard (IWB) and zoom in on the appropriate 1000 to locate the number on the number line</p>		