

Comparing numbers and using $<$, $>$ or $=$ lesson plan

Subject: Maths	Lesson Title: Comparing numbers and using $<$, $>$ or $=$
Date:	Time Span:
Year Group: 2	Group Size: 30

Desired Learning Outcomes

To be able to compare two numbers and say which is greater or less than the other

To be able to use the symbols $<$ $>$ and $=$ correctly

Key Language:

Higher, lower, greater than, less than, smaller, bigger and equal to,

Use of ICT:

Place Value ITP
Game on IWB for extension

Assessment (Make reference to each section of the lesson)

Intro – TA to check children who may / may not be able to count up to 20. Can children explain why teacher's deliberate mistakes are incorrect?

See if children are able to draw a representation of a number 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 draw a suitable representation of a given number?

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

Children not understanding that the open part of either $<$ or $>$ needs to face the higher number

Resources

Place Value ITP at http://www.taw.org.uk/lic/itp/place_val.html (if link does not work, just Google 'Place Value ITP')

Game for extension at <http://www.crickweb.co.uk/ks2numeracy-calculation.html>

Pupil whiteboards and pens

Numbers and symbols (laminated and cut up) for plenary

Worksheets

	Time
<p>Introduction</p> <p>For each explanation below you can use the Place Value ITP (which allows you to see a representation of each / all digits in a number) (http://www.taw.org.uk/lic/itp/place_val.html) to compare the numbers:</p> <ol style="list-style-type: none"> 1. Choose a number to display by clicking on the arrows above the boxes in the bottom right-hand corner and clicking on the numbers 2. Use the arrows to change the number you wish to display, click on the numbers again and you should have both numbers there to compare <p>Revise how the first thing that you need to do to compare numbers 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. 50 is higher / more than 5, and 500 is greater than 50. Repeat with similar examples e.g. 56 and 8, 243 and 87</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. Repeat with similar examples e.g. 81 and 32</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. Repeat with similar numbers e.g. 67 and 62.</p> <p>Repeat these explanations for numbers with 3 digits.</p> <p>Explain that we can use symbols to compare numbers and show which number is bigger or smaller</p> <p>Draw the symbols < > and =. Ask children if they have seen any of these before. Which ones? What do they stand for?</p> <p>Explain that < means 'less than' and > means 'more than'. Write these on the board. Explain that each one is a picture of a crocodile's mouth. Crocodiles are always hungry so the crocodile always gets ready to eat the biggest / highest / greatest number. Model how to use these symbols with several examples, always reminding children that the crocodile eats the biggest / highest / greatest number</p> <p>Give children a couple of examples to do on their pupil whiteboards. 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 compare numbers below 20</p> <p>Middle ability – compare numbers up to 100</p> <p>Higher ability – compare numbers up to 1,000</p> <p>Gifted and talented – compare numbers up to 10,000</p> <p>Extension – play game on IWB at http://www.crickweb.co.uk/ks2numeracy-calculation.html (3rd game down) as a reward and to reinforce lesson OR give children a pupil whiteboard and pen to make up their own examples</p>	15 mins
<p>Plenary</p> <p>Give each child a number or a symbol (<, > or =). When teacher counts down from 3, 2, 1, Go children need to find other children to make a three that looks correct. Repeat</p>	15 mins