Plan: Abacus Year 3   **Week:** Week 2

Date: 10/06/14 **School Name:** Pearson School   **Teacher:** Claire Randall   **Class:** Miss Randall's class

Lesson: Year 3 Lesson 7
Strand Number and place value (NPV)
Main Focus Use greater than > and less than < signs correctly between two 3-digit numbers, identify the number of 100s, 10s and 1s in a 3-digit number and use to compare and order numbers
Objectives • **NPV.33** Understand place value in 3-digit numbers by creating 3-digit numbers, placing them on a number line and solving place value additions and subtractions • **NPV.34** Order and compare 3-digit numbers and say a number between
Prior Learning Read and write 3-digit numbers; Begin to understand place value including placing numbers on a 100s, 10s and 1s place-value chart; Solve place-value additions and subtractions
Key Vocabulary addition; bonds to 100; matching; multiples; multiple of 5; multiple of 10; number bonds
Starter **ST 3.2.2 Tell the time to quarter to on analogue and digital clocks** Show the analogue clock face on the Clock tool 3.2.2 and ask chn to remind you what each of the hands shows us. *How many minutes in a hour? How many hours in a day?* Count round the clock face in 5s. Ask chn to remind you of o'clock, half past and quarter past times. Discuss where the minute and hour hands are at these times. Show chn quarter to three. Ask chn to say this time. Demonstrate how the minute hand is three-quarters round the clock. *This means there are 15 minutes (quarter of an hour) till 3 o'clock* . Point out that digital times are always shown as the number of minutes past the hour and so 45 is three-quarters of 60. Demonstrate counting round the clock in 5s to 45 minutes past and remind chn that this is quarter to. Rpt showing chn other quarter to times and ask them to write the equivalent digital times on their whiteboards.
Main Teaching • Show Screen 3.2.2a. Point to the inequality sign >. *Big mouths and sharp teeth!* Remind chn this sign is used in maths to show greater than. Click on it to show < and remind chn this sign is used to mean less than. • Remind chn the crocodiles are very greedy and they always eat the biggest fish (number) so their mouth is always open facing the biggest number. • Read the numbers on the interactive screen. • Choose two chn to each make one of the numbers using the place-value cards from Resource sheet 22 Resource sheet 23a Resource sheet 23b Resource sheet 24a and Resource sheet 24b. As they do this, discuss with the class how many 100s, 10s and 1s are in their number. • Ask the class which number is larger. Discuss how they know. By first comparing the digits with the greatest place value, that is, looking at the 100s digit first and knowing three 100s is greater than two 100s. • Choose a child to click on the crocodile (inequality sign) to make the number sentence correct. Emphasise how the crocodile always eats the bigger fish. • Rpt for the other pairs of numbers on the screen, using place-value cards if chn need support. Always emphasise that the crocodile's open jaws face the larger number. • Discuss what chn do if the 100s digits are the same. Agree that they need to look at and compare the digits with the next biggest place value, i.e. the 10s digit. *Which is larger?* If the 10s digits are the same then look at the 1s digit. Show that if the numbers are equal then the crocodiles cannot be used; we need to use an equals sign (=). **Key questions** • *Which number is greater? How can you be sure?* • *What do you look at to identify how many hundreds, tens or ones there are in a number?* • *What happens if both numbers are the same?* • *How can you remember which way round the sign (crocodile) should face?* **Watch out for** • Chn who can't identify the number of 100s, 10s, and 1s in a 3-digit number.

- Chn who can't compare 3-digit numbers by looking systematically at the digits with the greatest place value.
- Chn who don't understand how to use the inequality sign correctly.

Core

GP.C 3.2.2 < > and = signs

Chn write <, >, or = between each pair of numbers to make the number sentence correct. They should complete as many examples on GP 3.2.2 as they can. Encourage them to check their answers by checking that the 'crocodile's mouth' is open towards the bigger number.

Support

T Gui 3.2.2 < and > signs

Chn use place-value cards made from Resource sheet 22 Resource sheet 23a Resource sheet 23b Resource sheet 24a and Resource sheet 24b to make pairs of 3-digit numbers. Then they work together to compare them. They look for the bigger 100s digit, if it is the same they look at the 10s digit, etc. Encourage chn to read their numbers out loud and stress the numbers of 100s, 10s and 1s. When chn agree which is bigger, support them in writing <, >, or = between each pair of numbers, remembering that the 'crocodile's mouth' is open towards the bigger number.

Assessment Focus

- Do chn understand what each digit represents in numbers with up to 3-digits?
- Can chn compare and order numbers using place value?
- Can chn use < > signs correctly?

Extend

IP 3.2.2 Making larger numbers

Chn play a game in pairs where one child writes a 3-digit number and the other child can ask one question about the number and then has to try and write a larger number. Discuss appropriate questions, e.g. How many 100s does it have? Chn should check, in pairs, that the second number is larger, then swap roles. Chn can extend the game where they get to 'zap' a digit from their partner's number by subtracting the correct number of 10s, etc. to ensure that their number is bigger.

GP.E 3.2.2 < > and = signs

Chn complete questions 7-17 on GP 3.2.2 . Encourage them to go as quickly as possible.

Further Support

Chn use the place-value cards made from Resource sheet 22 Resource sheet 23a Resource sheet 23b Resource sheet 24a and Resource sheet 24b to make a 3-digit number. They then use the place-value cards to make a 3-digit number that is bigger than their first number and another 3-digit number that is smaller. They write three number sentences correctly using their numbers and < and > signs.

Plenary

Show Screen 3.2.2b. Look at first set of numbers 867, 876, 786 on the whiteboard. Explain to chn that you want to put these numbers in order largest to smallest. Discuss how we can do this. Ask chn to use facts about the place value of the digits to tell you about the numbers and their relative size, e.g. *786 only has seven hundreds so it is smaller than the other two numbers which both have eight hundreds* . Ask a child to drag and drop the numbers into the correct order. Rpt, asking chn to order 405, 504, 450. Again, discuss answers emphasising the place value of each digit. Finally rpt with, 726, 763 and 673.

Outcomes

Children can:

- recognise 100s, 10s and 1s in 3-digit numbers and use them to compare and order numbers.
- use greater than > and less than < signs correctly in a number sentence.

Physical Resources	Photocopiables	Digital Resources
- whiteboards	- Resource sheet 22 - Resource sheet 23a - Resource sheet 23b - Resource sheet 24a - Resource sheet 24b	- Clock tool 3.2.2 - GP 3.2.2 - Screen 3.2.2a - Screen 3.2.2b