Introduction

Students will recognise, model, represent and order three-digit numbers.

Resources

- Early FISH Kit
- My number is? Hundreds, Tens, Ones
- Place value chart
- Digits – 1 set between two students
- Counters or blocks for scoring
- Place value arrows
- Hundreds Chart mazes
- Tiny Hundreds Tens and Ones
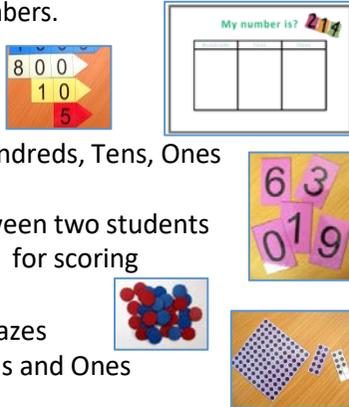
Time/Classroom Organisation

The *My Number is?* game may be played with the whole class or with small groups. Allow time for reflection and discussion at the end of the game, so that strategies and understandings can be shared.

Australian Curriculum Year Two

Recognise, model, represent and order numbers to at least 1000 (ACMNA027)
Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting (ACMNA028)
Proficiency Strand: Understanding – partitioning and combining numbers flexibly

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Activity Process---My Number Is?

1. Each student has a *My Number Is?* game board.
2. Place digits face down on the table – 1 set between two students.
3. The game begins with the teacher or student nominating the *target number*, for example: *the highest number wins*; OR *the lowest number wins*; OR *the number closest to 500*. Write the rule on the bottom of the game board.

4. All players select a digit and decide whether it will represent the hundreds, tens or ones. Students will need to *think strategically,* for example: If the object of the game is to have the highest number, and the student draws a 9, they would be wise to place this number in the hundreds column. Conversely, if they draw a 2, they would place this in the ones column.

5. When all players have placed their first digit in the selected place value column, each player draws a second digit.

6. Continue using the game board is full. Students will have no option but to place the third digit in the remaining empty column.

7. Students compare their numbers to see who has the highest number. The winner takes a counter. Repeat, changing the rule if desired. Play five rounds.

8. Ask students *to share their strategies, discussing reasons for their use*. Provide place value arrows and any hundreds tens and ones to support the discussion.

Source for resources: E deVries & E Warren
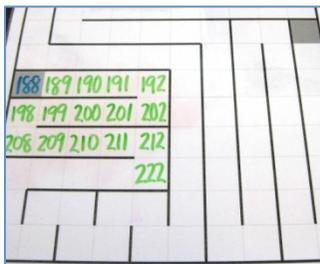
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1. Hundreds Chart mazes

Resource Hundreds Chart mazes, washable markers

Place a staring number in one shaded square.
Students follow the maze, filling in the numbers.
The object of the activity is to identify the number that belongs in the second shaded square.

Source: E deVries 2008

2. Counting in tens

Resources: Calculator, individual whiteboards

Ask students to use constant addition on their calculator to count in 10's. To begin, students key in '10+' and then press '=' The students then press '=' each time they which to add 10 – they no longer need to press '+10' each <me. Have students predict which number will come next (writing the prediction on a whiteboard), then press '=' to verify. Students can work in pairs and take turns at predicting. To vary the activity, nominate a starting number, for example: 34, and ask students to predict counting up in 10's.

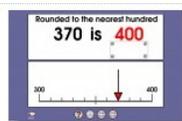Source: First Steps in Mathema<cs – Number. 2010. Rigby: Port Melbourne. p57..

Digital Resources

http://www.ideal---resources.com.au/index.php
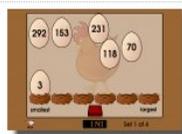
Eggs to Order (1)
Choose the level of difficulty, and then drag the eggs to the nests from smallest value to largest. Happy Hatching!

Round it nearest 100
370 is 400
Round numbers with the visual aid of a number line.

Nearest Number (Three Digit)
543
From the four choices given, select the number nearest to the one displayed on Sid's card (One Player).

http://www.ideal---resources.com.au/index.php

http://www.scootle.edu.au/ec/viewing/L8631/index.html

Contexts for Learning

Play:

Highest number: Remove picture cards and tens from a deck of cards, ace has a value of 1. Deal three cards to each player. Each player arranges the cards to make the highest possible hundreds number. Player with the highest number takes the other players' cards. Game continues until all cards have been played.

Source: Dutton, 2007. *Maths Games Cards and Dice*. Firefly: Buderim.

Investigation:

Draw two empty number lines. Show 10 and 60 on one number line; and 10, 60, and 90 on the other number line. Write four other numbers on your number lines

Note if students realise that the larger number does not have to be put at the very end of the line. The placement of each number is dependent on the other number/s.

Source: Sullivan and Lilburn. 2010. *Open-ended maths activities*. Oxford University Press: South Melbourne. p40.

Real life experience:

Each student brings a bar code from a discarded item. Compare the bar codes and discuss which is the highest /lowest number. Add the numbers; create a new number that is lower/higher.

Routines and Transitions:

Transition: Count up in 10's – each student provides the next number before transitioning to next activity.

Assessment

First Steps in Mathematics – Number Course Book
Diagnostic Task – **Up to and over 100** page 16
Diagnostic Task – **Up to and through the 100s** page 16
Diagnostic Task – **Read, write and say whole numbers** page 42

Achievement Standard: count to and from 1000

Background Reading

Although numbers can be applied in all sorts of different ways in the real world, they are also abstract objects that can be thought about and manipulated in their own right. Moving backwards and forwards between quantities and abstract numbers can help us to make sense of each.

We can think of 'three' separately from three things. Without having to refer to physical objects or actual quantities, we can compare and order the numbers themselves. We know that 8 is one more than 7; 3.5 is halfway between 3 and 4; ---4 is less than 0; and 1000 is ten times as big as 100. We also think of numbers as having a magnitude: 3 is a small number and 3 000 000 is a big number.

Although we express this in absolute terms, we are implicitly making relative or comparative statements. Compared to 3, 300 is a big number; compared to 3 000 000, 300 is a small number. Students should have many experiences that help them to get a sense of the order and relative magnitude of numbers. Source: *First steps in Mathematics – Number , 2007. Rigby: Port Melbourne.*

**Year three NAPLAN Numeracy test links**
• Number

Links to Related MAGs
1.3.1 Numbers to 100 - 2
1.3.4 Place Value chart
2.1.2 Numbers to 1000 – 1

Understanding Criteria for Assessment

Criteria must reflect the **intended learning** (content descriptors) of the curriculum. In broad terms they should directly reflect 'what students should know and be able to do'. We use criteria as the **qualities we are looking for** when we assess learners. These qualities are about 'what students should know and can do' as a result of their learning and our teaching. When learners demonstrate these qualities in a suitable (how well) range, they achieve the intentions (students will be able to) of the curriculum discipline as expressed in the achievement standards.

The learner is the primary audience for criteria and they need to be written with that in mind. There are two types of criteria: unit specific and task specific. Teachers select the type based on what is most useful for the purpose of feedback and feeding forward to students.

Criteria sheets are never perfect; they can always be improved in response to feedback from peers and learners. Criteria sheets should always be useful and easy to use by students (I can statements) and indicate aspects of effective mathematics practices expected to be in evidence (assessors).
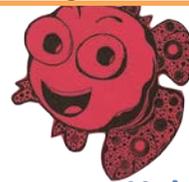
Content descriptor

ACMNA001 Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point

Unit specific

Recognise the number names to 20, say them clearly and record and read them. Continue a count, forwards or backwards from any point. Know, see, understand, position and use numbers in multiple ways.

Task specific

Recite the number names to 20, in order, forwards and backwards

Make connections between number names, numerals and quantities up to 10