



Numbers 0 - 25

P.4.1

Word Wall: row, column, 'one after', 'what is', first, second, between, count, forward, backwards, before, above, 'count backwards from'

Introduction

Students will say, understand and reason with number sequences to 25.



Resources

- Floor grid 5x5 (or make a grid using masking tape)
- Number 1--- 25 cards
- Word 1---25 cards
- Early FISH Kit



Time/Classroom Organisation

The **Grid game** can be played with small or whole group. Allow 15---20 minutes for each part of this activity.

Use the grid regularly for focused teaching, play and transitional activities.



Australian Curriculum Prep

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

Proficiency Strand:

Fluency – counting numbers in sequences readily

Problem Solving – using familiar counting sequences to solve unfamiliar problems



Activity Process---Number to 25

1. Roll out the 5x5 grid.
2. When placing numbers on the grid, start at the top left corner and 'wrap' the numbers from left to right as the grid is filled
3. Give students number cards 1---25.
4. Encourage students to place the numbers in order starting from 1.



5. Discuss the order of the numbers using positional and directional language. Say: *What is the number that comes **one after** seven; the **first** number on the **second** row; What are the numbers **between** 20 and 25?; **Count forward** from 10.*



Activity Process---Backwards Numbers to 25

1. Roll out the 5x5 grid
2. Give students number cards 1---25.
3. Encourage students to place the numbers in order starting from 25 in the bottom right corner.



4. Discuss the order of the numbers using positional and directional language. Say: *what is the number that comes **one before** twenty--five; what is the number **above** 25 on the grid; what are the numbers **between** 20 and 25?;*

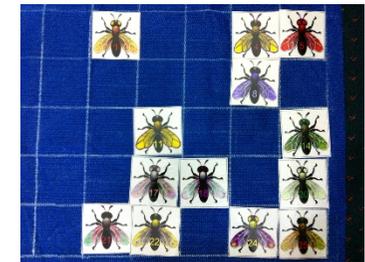
Count backward from 20.

Source: E deVries



Activity Process---Missing Numbers

1. Roll out the 5x5 grid
2. Place some numbers on the grid e.g. 1, 5, 8, 11, 16, 20, 24.



3. Give out remaining number cards to students.
4. Encourage students to 'fill in' the missing numbers
5. Ask the students to explain their reasoning for placing the number in the chosen position on the grid.



Activity Process – Number patterns

1. Start with the grid filled with numbers 1---25
2. Look at the patterns of the grid. Discuss the patterns that students can see, for example: *the 5's column ends in 5 and 10; in the other columns every second number has the same ending; the diagonal numbers end in 1,7,3,9,5 (odd numbers).*

Source: E deVries

Links to other subject areas

Artists dating back to the ancient Egyptians knew of a technique to break down a painting into smaller "grids" to effectively divide the image they were painting into a number of smaller images, each of which has less detail than the whole. The "grid method" was even used by Leonardo Da Vinci in both his works and in teaching.



Catholic Education
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Learning with Faith and Vision

Variations & Extensions

1. Grid – different representations

Resources: 5x5 grid, 1---25 word cards, 1---25 ten frame cards

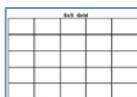
Do the focused teaching and learning activities using word cards 1---25; and ten frame cards 1---25.



2. Mini grid

Resources: A3 5x5 grid and whiteboard pens.

The focused teaching and learning grid games could be played using a laminated A3 5x5 grid.



3. 1---20 Mental Routine

Resources: 1---20 number grid and whiteboard pens

Give each student a 1---20 grid and spend 5 minutes each day on a mental routine involving

- **Closed question:** *What is the number between 9 and 11? What is the number after 13?*
- **Open question:** *I am thinking of a number between 5 and 10. What might it be?*
- **Flip question:** Guess my number – choose a number and ask the students to guess your number by asking questions.

Source: Baker, J. & Baker, A. 2006. *Natural Maths Strategies Book 1*. Blake Education: Clayton. P 89

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

4. Find my number

Resources: A3 5x5 grid, 1---25 numbers

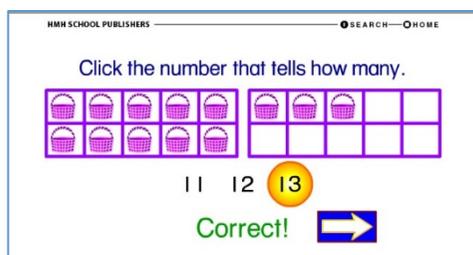
Small group activity: using the completed 5x5 grid filled with numbers 1---25. Using a duplicate set of numbers (or words or ten frames), give each student a mystery number. The student describes their number's position on the grid, without using the number name e.g. *my number is between 13 and 15; my number is above 8 on the grid*. The other students guess the number. The number is then placed in its correct position on the grid.

Digital Resources

<http://www.sheppardsoftware.com/mathgames/earlymath/BalloonCount20.htm>



<http://www.hbschool.com/activity/identify11-30/>



Contexts for Learning

Play:

Hopscotch: Create a hopscotch using the numbers 1 – 25.

Investigation:

Guess my number: Describe a number on the grid and ask the student to identify the number as they go e.g. *The mystery number is the number two before 13.*

Real life experience:

Class Number: Each morning count the number of students that are in attendance.

Routines and Transitions:

Numbers 1---25: On a large piece of card randomly write the numbers 1 – 25 on it. As students walk out the door ask them to point to a certain number.

Assessment

The student can count forwards and backwards from any given number from 1---25; and give a number/s between any two given numbers.

Achievement Standard: *count to and from 20.*

Prep Year Achievement Standard

By the end of the Prep year, students make

- connections between number names, numerals and quantities up to 10.
- compare objects using mass, length and capacity.
- connect events and the days of the week. They explain the order and duration of events.
- use appropriate language to describe location.
- count to and from 20 and order small collections.
- group objects based on common characteristics and sort shapes and objects.
- answer simple questions to collect information.

Consider students fluency with forwards and backwards counting in meaningful contexts and their ability to reason with the number sequences.

Pordolio---Annotated work sample 6

<http://www.australiancurriculum.edu.au/Mathematics/Curriculum/F---10/>

Background Reading

Exploring the patterns in the numbers 1 to 25 on the 5 x 5 grid assists students to see the patterns in the numbers to 100 on the 10 x 10 grid (hundreds board).

Understanding how the 10 x 10 grid 'works' assists learners with addition, subtraction, multiplication and division. The grid also supports early understandings about place value.

Links to Related MAGs

P.2.4 Make to 10

P.3.1 Ten Frames

1.1.1 Counting to 100