

**NELSON
MATHS**

**VICTORIAN
CURRICULUM**



DIGITAL
RESOURCES
INSIDE



Teacher's Resource Book

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Victorian Curriculum: **Number and Algebra**

Number and place value Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point (VCMNA069)

ML

numbers, one, two, three, four, five

LESSON PLAN

1

TUNING IN

NUMBER SONGS

You will need: NTO F.1 'This Old Man', NTO F.2 'Numbers Rumba'

Sing number songs that students know or that have been learned in a literacy lesson. Alternatively, present NTO F.1 'This Old Man' and NTO F.2 'Numbers Rumba', and sing the verses covering numbers 1 to 5 (if unsure of tunes, check on the internet). As students sing, have them hold up the matching number of fingers. After singing, ask students if they can recall any of the numbers in the song. Record responses.

WHOLE-CLASS INTRODUCTION

WRITING AND READING THE NUMERALS TO FIVE

You will need: NTO F.3 'Five Little Bees'

Read the rhyme featured on NTO F.3 'Five Little Bees' to students. Repeat the rhyme, encouraging students to join in. As you say the rhyme, hold up a finger as shown on the NTO. Repeat a number of times, encouraging students to hold up their fingers and move them like bees. Ask, 'How many bees were at the beginning of the rhyme?' Write the numeral on the board. Have students trace in the air as you trace over the numeral on the board. Ensure students start in the correct place and form the number correctly. Continue for the other numbers. Repeat the rhyme, but this time have students trace the numbers in the air as the numbers are mentioned.

INDEPENDENT TASKS

Note: Choose from Tasks 1, 2 or 3.

You will need: set of cards 1 to 5 made from BLM 1 'Number Cards 0-5' for each student, small whiteboards or sheets of paper, markers, NTO F.4 'Numbers', Student Book p. 4 'Writing Numbers to 5'

TASK 1: MYSTERY NUMBERS

In pairs, students combine their sets of cards made from 'BLM 1 Number Cards 0-5' (leave out the zero card), and shuffle. Cards are placed face-down in a pile, so the numerals cannot be seen. One student selects a card and traces the number on it onto their partner's back. The partner then writes their guess on the whiteboard or paper, and if the guess is correct they keep the card. If they do not guess the number, it goes to the bottom of the pile of cards. Students then swap roles. The game continues until all cards have been used.

TASK 2: INTERACTIVE TASK

To practise writing numbers, students use NTO F.4 'Numbers' to randomly select numbers that they copy onto a sheet of paper.

TASK 3: STUDENT BOOK p. 4 'Writing Numbers to 5'

TEACHING GROUP

You will need: set of enlarged cards 1 to 5 made from BLM 1 'Number Cards 0-5' for each student, sheets of paper

WRITING NUMBERS

- For students who require support, have them read through an enlarged set of cards featuring the numbers 1 to 5 made from BLM 1 'Number Cards 0-5'. Spread the cards out and say a number. Select a student to find the card. When the correct number has been selected, ask all students to say the number and then practise writing it on a sheet of paper. For students who are having difficulty writing the numerals, provide them with a copy of BLM 1 'Number Cards 0-5' and have them trace the numerals a few times. Encourage students to say the number when they have written it.

FAVOURITE NUMBERS

- For students who require a challenge, extend the range of numbers. Ask them to write numbers that may be significant, e.g. their age, the number of the classroom, the number of their house, the ages of their siblings and so on. When they have written their numbers, ask them to share them with the group. Continue asking questions relevant to their lives so that the number answers gradually increase.

REFLECTION

Select from the following to suit your class and their learning outcomes:

- Ask students how they were able to recognise numbers either when they were traced onto their backs during Independent Tasks, Task 1, or when they saw them written in Independent Tasks, Task 2.
- Ask students to find and read numbers around the classroom.

LESSON PLAN

2

TUNING IN

REVISITING NUMBERS TO 5

You will need: NTO F.1 'This Old Man', NTO F.2 'Numbers Rumba', NTO F.3 'Five Little Bees'

Revise the songs and chants from Lesson Plan 1 by revisiting NTO F.1 'This Old Man', NTO F.2 'Numbers Rumba' and NTO F.3 'Five Little Bees'. Ask, 'Do you remember any of the numerals we wrote in our last lesson?' Select students to write numerals 1 to 5 on the board. Praise students for their effort, telling them how you like the way they wrote the numeral or part of the numeral.

WHOLE-CLASS INTRODUCTION

RECOGNISING NUMERALS 1 TO 5

You will need: set of enlarged cards 1 to 5 made from BLM 1 'Number Cards 0-5', NTO F.4 'Numbers'

From the board, have students read numerals 1 to 5. Ask, 'Who can point to 3?' Continue asking for students to identify different numerals. Place the enlarged number cards made from BLM 1 'Number Cards 0-5' in different places around the classroom. Instruct students to choose a number and stand beside it. Using NTO F.4 'Numbers', generate numbers in the range of 1 to 5. Select 'Shuffle'. A number from 1 to 5 will appear. Have students call out the number. Students standing at that number card sit down. Then students either move to a different number or stay where they are. Generate another number on NTO F.4. Students standing at that number sit down. Continue until one student is left and wins the game. Alternatively, if not using NTO F.4, randomly select numbers by drawing number cards from a bag.

INDEPENDENT TASKS

Note: Choose from Tasks 1, 2 or 3.

You will need: BLM 3 'Grid Game', dice with the 6 covered by a sticker, NTO F.4 'Numbers', BLM 4 'Rockets', Student Book p. 5 'Bingo 5'

TASK 1: CALL THE NUMBERS

Put students in small groups, each student with a copy of BLM 3 'Grid Game' and a dice. One student in each group is the 'caller', and the other students fill in any numbers from 1 to 5 on the first grid. Students may choose to repeat a number. The caller rolls the dice and calls out the number rolled. If a student in the group has that number, they cross it out. If the sticker is rolled, the dice needs to be rolled again. The game continues until all the numbers in the 2 x 2 grid are crossed out. Students take it in turns to be the caller.

TASK 2: INTERACTIVE TASK

Set NTO F.4 'Numbers' with one card and the number range 1 to 5. Have students work with a partner. Pairs will need a copy of BLM 4 'Rockets'. In turn, students say a number and then select 'Shuffle'. If the number they say matches the one showing on NTO F.4, they colour in a square. The first student to complete their rocket wins.

TASK 3: STUDENT BOOK, p. 5 'Bingo 5'

Students work in pairs. Each pair will need a dice with the 6 covered by a star sticker.

TEACHING GROUP

You will need: set of enlarged cards 1 to 5 made from BLM 1 'Number Cards 0-5', playdough or modelling clay, NTO F.4 'Numbers'

PLAYDOUGH NUMBERS

- For students who require support, spread out the set of enlarged number cards 1 to 5 made from BLM 1 'Number Cards 0-5'. Have students point to a number and say its name. Continue asking students

to point to numbers. Note any student having difficulty recognising a particular number and have them point to it frequently and say its name. Provide playdough or modelling clay, and ask students to make a number, e.g. 2. When students have finished, show them the number 2 card so they can check if they were correct. In pairs, have each student select a card and hide it. Then they tell their partner their number, e.g. 'My number is 4'. They make their partner's hidden number from playdough or modelling clay. When finished, pairs check their model against the number cards.

NUMBER RACE

- For students who require a challenge, have them explore numbers greater than 5. Using NTO F.4 'Numbers', set the NTO to show one card but increasing the range to match the ability of the group. Select 'Shuffle', and have students read the number shown. Ask students to stand in a line, and in turn read the number generated. If they are correct, they take a step forward. Students have a race to see who can cross a given space first. Make the game more difficult by asking students to predict which number will come up next, and if they are correct, they take a step forward.

REFLECTION

Select from the following to suit your class and their learning outcomes:

- Ask students how they remember the number names.
- Tell students that you have a friend who mixes up the numbers 2 and 5 and ask them how they tell the difference between these numbers.

TUNING IN

BACK TO THE HIVE

You will need: NTO F.5 'Here Is a Hive'

Present NTO F.5 'Here Is a Hive'. Say the chant with students and have them perform the actions. Repeat. Tell students that numbers are counted in a special order. Ask, 'What was the first number we said?' Invite a student to write the number on the board and continue until 1, 2, 3, 4 and 5 are written. Using the counting sequence, play 'Back to the Hive'. Students stand in a circle and consecutively say the numbers 1, 2, 3, 4. When a student says '5', the other students say, 'Buzz! Back to the hive' and that student then sits in the middle. Continue until only one student is left. Observe how students participate. Identify students who are experiencing difficulty and may need support in a Teaching Group.

WHOLE-CLASS INTRODUCTION

NUMBER SEQUENCE TO FIVE

You will need: set of enlarged cards 1 to 5 made from BLM 1 'Number Cards 0-5'

Hand out cards 1 to 5 made from BLM 1 'Number Cards 0-5' randomly to five students, and have them stand at the front of the classroom. Ask students to check the order. Ask, 'Who needs to move to the start?' When that student has moved, ask, 'Is the order correct? Who else needs to move?' Continue until the order is correct. Encourage all students to say the number sequence aloud. Ask, 'What was the number we started counting from? What was the last number we counted?' Collect the cards from the students and shuffle. Hold up the cards so that students cannot see the numbers. Have a student select a card and show it to the class. Ask, 'Is this the number we start from?' If it is, have that student hold the card face out; if it is not, take the card back and ask the student to select another card. Continue until '1' has been selected. Ask the student to hold the card so that the class can see the number. Invite another student to choose a card, and continue until the counting sequence 1, 2, 3, 4 and 5 is displayed.

INDEPENDENT TASKS

Note: Choose from Tasks 1, 2 or 3.

You will need: BLM 5 'Dress the Students', NTO F.6 'Order the Numbers', Student Book p. 6 'Dot-to-Dot'

TASK 1: DRESS THE STUDENTS

Provide each student with a copy of BLM 5 'Dress the Students'. Ask students to cut out the t-shirts and arrange/paste them onto the students on the BLM in the correct sequence. Before students begin, have them revise the counting sequence and ask, 'Which number will go first?'

TASK 2: INTERACTIVE TASK

Using NTO F.6 'Order the Numbers', students order the numbers in the correct sequence. Set the range at 1 to 5. Five numbers will randomly appear, and students will need to put them in the correct order.

TASK 3: STUDENT BOOK p. 6 'Dot-to-Dot'

LESSON PLAN

3

TEACHING GROUP

You will need: NTO F.5 'Here Is a Hive', sets of cards 1 to 5 made from BLM 1 'Number Cards 0-5', sheets of paper, NTO F.6 'Order the Numbers'

STARTING WITH ONE

- For students who require support, provide more practice repeating the counting sequence in order and sequencing numbers 1 to 5. Display NTO F.5 'Here Is a Hive' and do the hand actions. Repeat. Ask students to do the hand actions for the numbers 1 to 5 and count out aloud. Repeat. Spread out a set of cards 1 to 5 made from BLM 1 'Number Cards 0-5' with the numerals facing up. Ask students to point to the cards as they repeat the counting sequence 1, 2, 3, 4, 5. Now spread out a number of sets of cards 1 to 5 with the numerals facing down. In turn, students select a card. If it is 1, they keep the card and select again, trying to find 2. If the student does not select the next number in the sequence, they must put the card back and the next student has a turn.

HOW FAR CAN YOU COUNT?

- For students who require a challenge, work with a greater range of numbers. Practise counting aloud, and then ask students to write down on sheets of paper the counting sequence as far as they know. Use NTO F.6 'Order the Numbers' and select a range suitable for students, based on the number sequences they have just written. Have students write the correct sequence and then select a student to check if they are correct.

REFLECTION

Select from the following to suit your class and their learning outcomes:

- Ask students how they put the numbers in the correct order during Independent Tasks, Tasks 1 and 2. Discuss possible strategies like repeat the counting sequence, visualising the sequence of numbers, and remembering a rhyme.
- Ask students how they knew that they had put the numbers in the correct order in 'How Far Can You Count?' in the Teaching Group.

Assessment

- Have students complete **Student Assessment p. 7**.
- Review with students **Assessment Task Card F.1**.

During the three lessons:

- Collect created items from Lesson Plan 1, Independent Tasks, Task 2, and Lesson Plan 3, Independent Tasks, Task 1, as work samples for student portfolios.
- Make note of students completing the scaffolding tasks or the more challenging activities of the Teaching Groups.
- Review Student Book pages and make notes of areas of difficulty.

Recommendations for Future Learning

Specific to Student Assessment p. 7; if the student is experiencing difficulty:

- Q1 Practise counting the sequence 1 to 5 and use NTO F.5 'Here Is a Hive'.
- Q2 Use NTO F.6 'Order the Numbers'.
- Q3 Have the student make a set of number cards 1 to 5 from BLM 1 'Number Cards 0-5', place them in the correct sequence and say numbers repeatedly.

If the student has not achieved the recommended skills for this unit:

- See **Assessment Task Card F.1** for specific recommendations.
- Sing and chant number songs and rhymes.
- Have the student make numbers from playdough on small separate boards, saying the numbers as they make them. Have them arrange the numbers in the correct sequence.
- Practise saying the counting sequence 1, 2, 3, 4, 5 and doing the finger actions from NTO F.3 'Five Little Bees'.

If the student has achieved the recommended skills and these skills are firmly established, consider:

- Moving forward to *Nelson Maths: Victorian Curriculum Foundation Unit 8*.
- Moving forward to *Nelson Maths Building Mental Strategies Big Book F*, pp. 4-5.
- Extending the student in any of the listed activities or tasks by using a greater range of numbers.