## Number Identification: Making Money

## New Zealand Curriculum

This lesson plan could be used to support the teaching and learning of the following Achievement Objective(s) from the New Zealand Curriculum.

Whole Lesson Time All timings are approximate.

Level 3: Number Knowledge
Achievement Objective: Know how many tenths, tens, hundreds and thousands are in a whole number.

## Student-Friendly Learning Intention:

To read and write numbers to 1,000,000.

## Success Criteria:

I can read and write numbers up to $1,000,000$ as words.

I can read and write numbers up to $1,000,000$ as digits.

## Resources:

Lesson Pack
Assessment Resource - a success criteria marking sheet is included if you wish to assess this lesson.

## Preparation:

New Zealand Money - 40 copies per group Making Money Activity (Differentiated) - one per student
Rich List Activity Sheet (Differentiated) - one per student
Problem-Solving Cards - as required

## Key/New Words:

Millions, thousands, hundreds, tens, ones, zero, place value, digit, ten thousands, hundred thousands

## Prior Learning

It will be helpful if students are comfortable with reading and writing numbers up to 1000.
Learning Sequence

| \% | Warm-up <br> Reading Numbers: This Lesson Presentation will look at reading numbers up to 1,000,000 in the context of money. <br> Number Puzzles: Using the Lesson Presentation, match the numbers as words and digits. <br> Parts of Numbers: Continue working through the Lesson Presentation, this time looking at the different parts of a number. | (10 |
| :---: | :---: | :---: |
| $\square$ | Guided Groups <br> Insert text here. <br> In this group, students will make numbers out of New Zealand Money. Ask students to make numbers out of the money up to 10,000, then challenge to 100,000 , and ask a partner to check the notes they have chosen. Get one student to share back. <br> Write a number on the board for students to make. Share back different ways to make the number using notes and coins, challenge to 100,000 . <br> In this group, students will make numbers out of New Zealand Money. Ask students to make numbers out of the money up to 500,000 , then ask a partner to check the notes they have chosen. Get one student to share back. Write a number on the board for students to make. Share back different ways to make the number using notes and coins, examples should be in the 1-500,000 range. <br> In this group, students will make numbers out of New Zealand Money. Ask students to make numbers out of the money up to $1,000,000$, then ask a partner to check the notes they have chosen. Get one student to share back. Write a number on the board for students to make. Share back different ways to make the number using notes and coins, examples should be in the 1-1,000,000 range. | per group |
| Q | Follow-up Activities <br> This group will complete the one star Making Money Activity where students will practice writing numbers as digits and words up to 100,000. <br> This group will complete the two star Making Money Activity where students will practice writing numbers as digits and words up to 500,000 <br> This group will complete the three star Making Money Activity where students will practice writing numbers as digits and words with numbers up to 1,000,000. Students are also required to perform addition calculations to find the solutions. | ( 10 |


|  | Independent Activity Ideas <br> Solveit: Students complete this <br> by solving addition sums using numbers up to six digits. <br> Slideit: Students use the $\qquad$ to make a teaching aid to show numbers to $1,000,000$. Students will cut out the number strips, then carefully cut along the dotted lines on the slider. Slot the number strips into the sliders and it's ready to go. <br> Fillit: Students fill out this <br> to revise and reinforce the place value of seven-digit numbers. | 75 mins |
| :---: | :---: | :---: |
| -00 | Wrap-up <br> Play a card game. Shuffle a pack of cards with the face cards and tens removed. Deal out six cards face down to each student. Students turn their cards over and say the number on their card. They then turn their cards back over, shuffle them then reflip them to the face side up again and write this number down as words on a small whiteboard. Set a challenge, who can make a number closest to 500,000 ? | ( 10 |

## Extending Learning

For schools following a problem-solving approach, you may wish to extend learning with the Problem-Solving Cards. Alternatively, these could be used as a home learning task or introduction to another lesson.

## Disclaimer/s

We hope you find the information on our website and resources useful.

## Animations

This resource has been designed with animations to make it as fun and engaging as possible. To view the content in the correct formatting, please view the PowerPoint in 'slide show mode'. This takes you from desktop to presentation mode. If you view the slides out of 'slide show mode', you may find that some of the text and images overlap each other and/or are difficult to read.

To enter slide show mode, go to the slide show menu tab and select either from beginning or from current slide.


## Mathematics

Number Identification


Regent Studies | www.regentstudies.com

## Learning Intention

- To read and write numbers to $1,000,000$


## Success Criteria

- I can read and write numbers up to 1,000 as in words.
- I can read and write number up to 1,000 as in digits.


## Reading Numbers

Partition the numbers and write the value of each number in words.
An example has been given.

| 421 | $\mathbf{4 0 0 + 2 0 + 1}$ | four hundred and <br> twenty-one |
| :---: | :---: | :---: |
| (1) | (2) |  |
| (3) |  |  |
| 78,560 |  | one thousand, two <br> hundred and eight |
| (5) 90,092 |  |  |

## Reading Numbers

Ms Story is a famous writer.


## Reading Numbers

## Were you able to read it?



## Reading Numbers

The place value grid helps us to see the value of each digit in the number so that we can read it easily.

## 576,293

| Ten <br> Millions | Millions | Hundred <br> Thousands | Ten <br> Thousands | Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 5 | 7 | 6 | 2 | 9 | 3 |

Five hundred and seventy-six thousand, two hundred and ninety-three.

## Reading Numbers

Use the place value grid to help you read how much money these celebrities earned.

| Tara Singer earned $\$ 764,830$. | $\$$ |
| :---: | :---: |
| Thomas Theatre made $\$ 57,847$. | $\$$ |
| Dorothy Dancer earned $\$ 648,539$. | $\$$ |


| Ten <br> Millions | Millions | Hundred <br> Thousands | Ten <br> Thousands | Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{Z}$ | $\mathbf{6}$ | $\mathbf{8}$ | $\mathbf{8}$ | $\mathbf{8}$ | (7) |

Fifty-seven thousand, eight hundred and forty-seven dollars.


## Parts of Numbers

Each digit in a number tells us about a different part of the number.

A pop band earned $\$ 675,209$ last month.
We can split this number into its separate parts.

## 675,209



## Parts of Numbers

## A girl band earned $\$ 802,684$.

Can you describe each part of this number?
802,684
eight hundred thousands
zero ten thousands
two thousands


## Learning Intention

- To read and write numbers to $1,000,000$


## Success Criteria

- I can read and write numbers up to 1,000 as in words.
- I can read and write number up to 1,000 as in digits.


## The Rich List

To read and write numbers to 1,000,000.
These celebrities are all featured on the Rich List.
Can you read and write the amounts of money they have earned?

1. The Kereru Chorus are a girl band. Their last album sold well, and they earned \$9672 in one month.

Can you write this figure as words?
$\square$

2. Makavalu is a famous actor. For their last film, they were paid eight thousand, seven hundred and eighty-five dollars.

Can you write this figure as digits?
$\square$

3. Waipa Wonders are an orchestra and have recently been on tour. Altogether their concerts made them two thousand and forty-six dollars.

Can you write this amount as digits?
$\square$

4. Zarya Dalton writes children's books. Her latest book was so popular that she made $\$ 98,742$ from its sales.

Can you write this figure as words?

5. Wairere is a famous singer. She recently started to design clothes. The earnings from her clothing line total five ten thousands, six thousands, nine hundreds, three tens and two ones.

Can you write this figure as digits?
$\square$


## The Rich List

To read and write numbers to 1,000,000.
These celebrities are all featured in the Rich List.
Can you read and write the amounts of money they have earned?

1. The Kereru Chorus are a girl band. Their last album sold well, and they earned $\$ 305,127$ in one month.

Can you write this figure as words?
$\square$

2. Makavalu is a famous actor. For their last film, they were paid four hundred and sixty-two thousand, eight hundred and ninety-one dollars. Can you write this figure as digits?
$\square$

3. Waipa Wonders are an orchestra and have recently been on tour. Altogether their concerts made them three hundred and five thousand, one hundred and twenty-seven dollars.

Can you write this amount as digits?
$\square$

4. Zarya Dalton writes children's books. Her latest book was so popular that she made $\$ 98,742$ from its sales.

Can you write this figure as words?

5. Wairere is a famous singer. She recently started to design clothes. The earnings from her clothing line total five ten thousands, six thousands, nine hundreds, three tens and two ones.

Can you write this figure as digits?
$\square$


## The Rich List

To read and write numbers to 1,000,000. O

These celebrities are all featured in the Rich List.
Can you read and write the amounts of money they have earned?

1. The Kereru Chorus are a girl band. Their last album sold well, and they earned $\$ 805,127$ in one month from its sales, plus an extra $\$ 80,000$ from advertising.

Can you write this figure as words?

2. Makavalu is a famous actor. For their last film, they were paid four hundred and sixty-two thousand, eight hundred and ninety-one dollars but he gave seventy thousand dollars to charity.

Can you write as digits the final amount that he ended up with?
$\square$

3. Waipa Wonders are an orchestra and have recently been on tour. Altogether their concerts made them four hundred and ten thousand, three hundred and five dollars from ticket sales and an additional eleven thousand dollars from merchandise sales.

Can you write the total amount they earned from their tour as digits?

4. Zarya Dalton writes children's books. Her latest book was so popular that she made \$708,324 from its sales.

Can you write this figure as words?

5. Wairere is a famous singer. She recently started to design clothes. The earnings from her clothing line total three tens, seven hundred thousands, eight ones, four ten thousands, zero thousands and one hundred.

Can you write this amount as digits and words?




1) a) $30,000+4000+200+80+1=34,281$
b) $\mathbf{6 0 , 0 0 0}+100+\mathbf{4 0}+7=60,147$

c) $50+3000+20,000+500+2=23,952$
d) $100,000+3000+\mathbf{2 0} 100+1=103,121$
2) Terri is incorrect. This number should be 3402. Terri has placed the 3 digit in the ten thousands place rather than the thousands and the $\mathbf{2}$ digit in the tens place rather than the ones.
3) 



1) Terri is incorrect. This number should be $\mathbf{6 0 3 , 4 0 2}$. Terri has placed the 3 digit in the ten thousands place rather than the thousands and the $\mathbf{2}$ digit in the tens place rather than the ones.

2) 

| 422,407 | to | 402,307 | Subtract 20,000 and $100(20,100)$ |
| :---: | :---: | :---: | :--- |
| 203,810 | to | 103,780 | Subtract 100,000 and $\mathbf{3 0}(\mathbf{1 0 0 , 0 3 0})$ |
| 397,198 | to | 381,191 | Subtract 10,000, $\mathbf{6 0 0 0}$ and $\mathbf{7}(\mathbf{1 6 , 0 0 7 )}$ |
| 499,232 | to | 299,132 | Subtract 200,000 and 100 (200,100) |
| 382,111 | to | 22,111 | Subtract 300,000 and 60,000 (360,000) |
| 198,382 | to | 78,302 | Subtract 100,000, 20,000 and 80 (120,080) |

3) a) Accept any answer that highlights that Freya has not used a zero in the hundreds place and has written one in the place of the hundreds. Freya has written an incorrect number.
b) Accept any answer that shows that Adam has incorrectly read the position of the nine and five digits. For example Adam has said that the digits nine and five represent the ten thousands and thousands but they actually represent the hundreds and tens. The number in words should be three hundred thousand, nine hundred and fifty-five.
4) a) 848,482
b) eight hundred and forty-eight thousand, four hundred and eighty-two
5) $240,325=20+4000+3000+200,000+5$

Correct or incorrect? Incorrect 300 has been written as 3000.
$493,989=400,000+900+90,000+9+3000+80$
Correct or incorrect? Correct
3) a) Mr Strings $\$ 727,410$
b) Ms Percussion \$444,709

## Read and Write Numbers to 1,000,000

## Read and Write Numbers to 1,000,000

1. Find the missing values in these numbers.
a) $30,000+$ $\qquad$ $+200+80+1=34,281$
b) $\qquad$ +100 + $\qquad$ $+7=60,147$
c) $50+3000+20,000+$ $\qquad$ $+$ $\qquad$ $=23,952$
d) $100,000+$ $\qquad$ $+$ $\qquad$ $100+1=103,121$
2. Last year, an inventor earned three thousand, four hundred and two dollars. Terri writes this in numerals as $\$ 30,420$. Is she correct? Explain your thinking.

Match the correct numerals to the words.


> twenty, thousands, three hundred and forty-two
twenty-three thousand and forty-two

```
23,042
```

and forty-two
twenty thousands, four hundred and twenty

1. Find the missing values in these numbers.
a) $30,000+$ $\qquad$ $+200+80+1=34,281$
b) $\qquad$ +100 + $\qquad$ $+7=60,147$
c) $50+3000+20,000+$ $\qquad$ $+$ $\qquad$ $=23,952$
d) $100,000+$ $\qquad$ $+$ $\qquad$ $100+1=103,121$
2. Last year, an inventor earned three thousand, four hundred and two dollars. Terri writes this in numerals as $\$ 30,420$. Is she correct? Explain your thinking.
3. Match the correct numerals to the words.

twenty, thousands, three hundred and forty-two
twenty-three thousand and forty-two

## twenty thousands, four

 hundred and twenty
## Read and Write Numbers to 1,000,000

## Read and Write Numbers to 1,000,000

1. Last year, an inventor earned six hundred and three
2. Last year, an inventor earned six hundred and three thousand, four hundred and two pounds. Terri writes this in numerals as $\$ 630,420$. Is she correct? Explain your thinking.
3. Explain how you can use place value to calculate the difference between each number. The first one has been done for you.

| 422,407 | to | 402,307 | Subtract 20,000 and <br> $100(20,100)$ |
| :---: | :---: | :---: | :---: |
| 203,810 | to | 103,780 |  |
| 397,198 | to | 381,191 |  |
| 499,232 | to | 299,132 |  |
| 382,111 | to | 22,111 |  |
| 198,382 | to | 78,302 |  |

3. These children are writing numbers as digits and numbers as words.
a) 427,15

Freya has written the number four hundred and twentyseven thousand and fifteen. Can you explain the mistake that Freya has made?
b) 300,955

Adam has written the numeral in words, three hundred and ninety-five thousand and five. Can you explain the mistake that Adam has made?
2. Explain how you can use place value to calculate the difference between each number. The first one has been done for you.

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Adam has written the numeral in words, three hundred and ninety-five thousand and five. Can you explain the mistake that Adam has made?

## Read and Write Numbers to 1,000,000

1. I'm thinking of a number.

- It is an even number.
- The hundred thousands digit is greater than six.
- The ten thousands digit is half of the hundred thousands digit.
- The hundreds digit is an even number less than ten.
- The ones digit is an even prime number.
a) What number am I thinking of?
b) Can you write the number in words.

2. 

Are these statements correct or incorrect?
$240,325=20+4000+3000+200,000+5$
Correct or incorrect?
$493,989=400,000+900+90,000+9+3000+80$
Correct or incorrect?

The orchestra players were comparing how much they earnt this year. Mrs Viola earnt \$558,230, Mr Brass earnt \$295,900 and Mrs Notes earnt \$750,000.
a) Mr Strings has recorded his earnings for the year. Using the clues, can you work out how much he earnt?
He has thirty few ten thousands than Mrs Notes.
He has double the hundreds of Mrs Viola.
He has the hundred thousands of Mrs Viola and Mr Brass added together. He has twenty fewer tens than Mrs Viola. He has two thousands more than Mr Brass.

Ms Percussion recorded her earnings for the year. Using the clues, can
b) you work out how much she earnt?

She has half as many thousands as Ms Viola.
She has two fewer hundreds than Mr Brass.
She has nine ones.
She has the ten thousands of Mr Brass minus the ten thousands of Mrs Notes.
She has double the hundred thousands of Mr Brass.

## Read and Write Numbers to 1,000,000

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- It is an even number.
- The hundred thousands digit is greater than six.
- The ten thousands digit is half of the hundred thousands digit.
- The hundreds digit is an even number less than ten.
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a) What number am I thinking of?
b) Can you write the number in words.

2. Are these statements correct or incorrect?
$240,325=20+4000+3000+200,000+5$
Correct or incorrect?
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Read and Write Numbers to 1,000,000 | Making Money

| To read and write numbers to 1,000,000. |
| :--- |
| I can read and write numbers up to 1,000,000 as <br> words. |
| I can read and write numbers up to 1,000,000 as <br> digits. |

Read and Write Numbers to 1,000,000 | Making Money

| To read and write numbers to 1,000,000. |
| :--- |
| I can read and write numbers up to 1,000,000 as <br> words. |
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Read and Write Numbers to 1,000,000 | Making Money

To read and write numbers to $1,000,000$.

I can read and write numbers up to $1,000,000$ as words.

I can read and write numbers up to 1,000,000 as digits.

Read and Write Numbers to 1,000,000 | Making Money

To read and write numbers to $1,000,000$.

I can read and write numbers up to $1,000,000$ as words.

I can read and write numbers up to 1,000,000 as digits.

Read and Write Numbers to 1,000,000 | Making Money

| To read and write numbers to 1,000,000. |  |  |
| :--- | :--- | :--- |
| I can read and write numbers up to 1,000,000 as <br> words. |  |  |
| I can read and write numbers up to 1,000,000 as <br> digits. |  |  |

Read and Write Numbers to 1,000,000 | Making Money

| To read and write numbers to 1,000,000. |  |  |
| :--- | :--- | :--- | :--- |
| I can read and write numbers up to 1,000,000 as <br> words. |  |  |
| I can read and write numbers up to 1,000,000 as <br> digits. |  |  |

