Number Identification: Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

New Zealand Curriculum Whole Lesson Time This lesson plan could be used to support the teaching and learning of the following Achievement Objective(s) All timings are from the New Zealand Curriculum. approximate. 50 mins Level Number 3: Number Knowledge Achievement Objective: Know how many tenths, tens, hundreds and thousands are in a whole number. **Student-Friendly Learning Intention: Resources: Preparation:** To read and write numbers to Numbers to 1,000,000 Number Cards - one Lesson Pack 1,000,000. per class Assessment Resource - a success criteria marking sheet is included if you wish to assess Read and Write Numbers to 1,000,000 Success Criteria: this lesson. Activity (Differentiated) - one per student I can read and write numbers up to Whiteboards Millions Place Value Grid - one per student 1,000,000 as words. Whiteboard pens Problem-Solving Cards - as required I can read and write numbers up to 1,000,000 as digits. Key/New Words: Ten thousands, hundred thousands, thousands, hundreds, tens, ones, zero, digits, partition, place value.

Prior Learning

It will be helpful if students recognise four-digit numbers.

Learning Sequence

Warm-up Reading Numbers: Use the Lesson Presentation to teach students about numbers to 1,000,000. This presentation uses a place value grid to help students understand how to read and say numbers to 1,000,000.	10 mins
Guided Groups In this group, students will read and write numbers to 1,000,000 using digits and words. Use the Millions Place Value Grid to analyse numbers. Students write down a number and say it to their partner. Work with students to recognise how to say numbers, e.g. four hundred and twenty-three thousand, four hundred and sixty-four. Students then write the number down in words. Prompt students to use the Millions Place Value Grid if they are unsure of spelling. Can students read and write numbers up to 1,000,000 as words? In this group, students will read and write numbers to 1,000,000 using digits and words. Use the Millions Place Value Grid to analyse numbers. Students write down a number and say it to their partner. Work with students to recognise how to say numbers, e.g. four hundred and twenty-three thousand, four hundred and sixty-four. Students write down a number and say it to their partner. Work with students to recognise how to say numbers, e.g. four hundred and twenty-three thousand, four hundred and sixty-four. Students then write the number down in words. Include examples that have a zero as a placeholder. Can students read and write numbers up to 1,000,000 as words?	Per Group
In this group, students will read and write numbers to 1,000,000 using digits and words. Use the Millions Place Value Grid to analyse numbers. Students write down a number and say it to their partner. Work with students to recognise how to say numbers, e.g. four hundred and twenty-three thousand, four hundred and sixty-four. Students then write the number down in words. Include examples that have a zero as a placeholder.	
Can students read and write numbers up to 1,000,000 as digits? Can students read and write numbers up to 1,000,000 as words?	

Follow-up Activities This group will complete the one star Read and Write Numbers to 1,000,000 Activity. Students will match numbers written in words and digits as well as practice writing numbers in words. Students partition numbers and recognise the value of each digit. Students work up to the number 500,000.	10 mins
This group will complete the two star Read and Write Numbers to 1,000,000 Activity . Students will match numbers written in words and digits as well as practice writing numbers in words. Students partition numbers and recognise the value of each digit. Students practice understanding zero as a place value holder.	
This group will complete the three star Read and Write Numbers to 1,000,000 Activity . Students will match numbers written in words, diagrams and digits as well as practice writing numbers in words. Students partition numbers and recognise the value of each digit. Students are challenged at this level to recognise zero as a place value holder in several places in a number.	
Independent Activity Ideas Matchit: Students are to use this Numbers to 1,000,000 Matching Game to match the numbers written as digits to the numbers written as words. This game keeps students exploring their instant recall when it comes to recognising numbers in digits and words.	15 mins
Learnit: Use this handy <u>Reading and Writing Numbers to 1,000,000 Maths Mat</u> to help students read and write numbers to 1,000,000. This mat can be used alongside other games to support students to feel confident knowing the words used to say numbers.	
Make it: Students use these <u>Number Fans</u> to make and say numbers up to 1,000,000. Students can work in pairs to say or write a number, the partner then makes the number using the number fan.	
Wrap-up Hand out the Numbers to 1,000,000 Number Cards. One student says their number out loud using the correct words. The other students in the group write what they think the number is on a whiteboard. Students self- check with the original number on the paper to see if it is correct. Another student then takes their turn to say their number aloud.	10 mins

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

Level 3 Number Identification: Read and Write Numbers to 1,000,000 Recognise Numbers in Digits, Diagrams and Words up to 1,000,000 Lesson 1



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.

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

421	400 + 20 + 1	four hundred and twenty-one
878,909	800,000 + 70,000 + 8000 + 900 + 9	eight hundred and seventy- eight thousand, nine hundred and nine
1208	1000 + 200 + 8	one thousand, two hundred and eight
2580	2000 + 500 + 80	two thousand, five hundred and eighty
107,070	100,000 + 7000 + 70	one hundred and seven thousand and seventy
19,019	10,000 + 9000 + 10 + 9	nineteen thousand and nineteen

In year 4, we found out that the value of a given digit is 10 times the size if it moves one place to the left on the place value grid.



Warm-up

We can use a place value grid to help us read large or small numbers.

We always enter numbers into the place value grid starting from the right.

76,293

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
	7	6	2	9	3

Seventy-six thousand, two hundred and ninety-three

Use the place value grid to help you read the amounts shown.



0

Reading Numbers

Use the place value grid to help you read the amounts shown.

706,293Seven hundred and six thousand, two hundred and ninety-three						
	80,002		Eigl	nty-thousan	d and two)
	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
	7	θ	6	8	θ	B

Use a place value grid to help read the following numbers aloud.



Use a place value grid to help read the following numbers out loud.



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.



Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

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

1. Match the representation to the correct number.

121,111		982,207		21,112	
			_		
Twenty-one thousand, one hundred and twelve		Nine hundred and eighty-two thousand, two hundred and seven		One hundred twenty-one the one hundred an	l and ousand, d eleven

2. Write the following numbers in words.

156,939	
93,824	
388,493	

3a) Complete the partition diagram to help describe the place value of each digit in the numbers in words.



Recognise Numbers in Digits, Diagrams and Words up to 1,000,000 **Answers**

1. Match the representation to the correct number.



2. Write the following numbers in words.

156,939	One hundred and fifty-six thousand, nine hundred and thirty-nine
93,824	Ninety-three thousand, eight hundred and twenty-four
388,493	Three hundred and eighty-eight, four hundred and ninety-three

3a) Complete the partition diagram to help describe the place value of each digit in the numbers in words.



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

 Match the representation to the correct number.

 292,764
 932,123

 Sol,042

 Nine hundred and thirty-two thousand, one hundred and one thousand one thousand is even hundred and is even hund

and forty-two

sixty four

2. Write the following numbers in words.

twenty-three

1.

302,443	
694,311	
778,435	

3a) Complete the diagram to help describe the place value of each digit in the numbers in words.



Read and Write Numbers to 1,000,000 **Answers**

1. Match the representation to the correct number.



2. Write the following numbers in words.

302,443	Three hundred and two thousand, four hundred and forty-three
694,311	Six hundred and ninety four thousand, three hundred and eleven
778,435	Seven hundred and seventy-eight, four hundred and thirty-five

3a) Complete the diagram to help describe the place value of each digit in the numbers in words.



3b)



To read and write numbers to 1,000,000.Match the representation to the correct number.43,250203,495209,395Two hundred and
three thousand,
four hundred and
ninety-five43,00043,500Two hundred and
nine thousand,
three hundred and
ninety-five

2. Write the following numbers in words.

1.

490,328	
110,002	
283,495	

3a) Complete the diagram to help describe the place value of each digit in the numbers in words.



Read and Write Numbers to 1,000,000 **Answers**

1. Match the representation to the correct number.



2. Write the following numbers in words.

490,328	Four hundred and ninety thousand, three hundred and twenty-eight
110,002	One hundred and ten thousand and two
283,495	Two hundred and eighty-three thousand, four hundred and ninety-five

3a) Complete the diagram to help describe the place value of each digit in the numbers in words.



Millions, Thousands, Hundreds, Tens and Ones Place Value Grid

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
		Regent St	udies www.regentstu	udies.com		

Numbers to 1,000,000 Matching Game

This pack contains individual sets of 7 pairs to make a game that can be played by any number and create a winner. The sets could be printed on different colours to avoid mixing up.

To play:

- Place all cards face down either in a random pattern or a more organised grid.
- 2. The first player turns 2 cards in their places and checks to see if they match.
- 3. If the cards match they take the pair and try again.
- 4. If they do not match the next player turns.



- 5. The game continues until all the cards are paired.
- 6. The winner is the player with the most pairs.

Other Activities

It is possible to use the cards for matching ordering activities other than the game.













90,090	Ninety thousand and ninety
900,900	Nine hundred thousand, nine hundred
900,909	Nine hundred thousand, nine hundred and nine
90,099	Ninety thousand, and ninety-nine
909,990	Nine hundred and nine thousand, nine hundred and ninety
991,919	Nine hundred and ninety-one thousand, nine hundred and nineteen
999,999	Nine hundred and ninety-nine thousand, nine hundred and ninety-nine







Answers

1.													(حکی
Number in	Digits	Numb	er in Words	6] [Number ir	ı Digi	ts	Number	r in Words		
31,504	31,504 Thirty-one thousand, five hundred and four						23,649			Twenty- and fort	three thous y-nine	and, six	hundred	
Place Valu	e Represento	ıtion						Place Valu	e Rep	resento	ition			
Hundred Thousands	Ten 5 Thousan	ds Thousa	inds Hund	lreds	Tens	Ones		Hundred Thousands	undred Ten T ousands Thousands T		Thousands	Hundreds	Tens	Ones
	000			30		88		00		000		88		
Number in	Digits	Number	r in Words]	2.						
73,073		Seventy seventy	-three thou -three	ısand	and			Mr Pukek	20	Fifty-five thousand, two hundred and forty-three				ed and
Place Valu	e Represento	ıtion												
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Te	ens	Ones		Mrs Tui Sixt		y-seven th forty-two	ousand, ti	iree hu	ndred	
		000						Miss Huid	a	One hun	hundred o dred and t	ınd one th hirty-eigh	ousand t	, four

1.										E	Eres and a second	
Number in Digits Number in Words					Number ir	ı Digits	Number	nber in Words				
391,504	391,504 Three hundred and ninety-one thousand, five hundred and four			ie four	903,485		Nine hu four hu	Nine hundred and three thousand, four hundred and eighty-five				
Place Value	Representatio	n				Place Valu	e Represento	ation	n			
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	
000		0						000				

- 2. Mrs Watson is incorrect. The number should have been written as \$30,200. She placed the two hundreds in the tens column.
- 3. a. 145,567





Answers

Regent Studies | www.regentstudies.com

Number in D	Digits	Number in	Number in Words					
301,504	Three hund five hundre	lred and one d and four	e thous	sand,	900,061			
Place Value		Place Val						
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Hundred Thousands		
000		0						

		_						
Number ir	n Digits		Number	in Words				
900,061			Nine hundred thousand, and sixty-one					
Place Value Representation								
Hundred Thousands	Ten Thousands	Т	housands	Hundreds	Tens	Ones		
						0		

2. a. 104,567



b. 765,410



3.

1.

Number as Digits	Number as Words	
4 <u>1</u> 0,4 <u>1</u> 0	Four hundred and <u>one</u> thousands, four hundred and <u>one</u>	The number as digits should read 401 401. The digit '1' has been placed in the wrong column twice
723,812	Seven hundred and twenty-three thousand, eight hundred and twelve	No error
699, <u>4</u> 00	Six hundred and ninety-nine thousand, and <u>forty</u>	The number as digits should read 699 040. The digit '4' has been placed in the hundreds column

Complete the tables.

2.

Nu	nber in Digit	S		Numb	er in Words			
	31,504							
	Р	lace Value	Rej	oresentation				
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones		
		•						
Nu	mber in Digit	s		Numb	er in Words			
			t	wenty-three t and	housand, six forty-nine	hundred		
	Р	lace Value	Rej	oresentation				
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones		
Nu	nber in Digit	S		Numb	er in Words	Ones Ones		
	Р	lace Value	Rej	oresentation				
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones		
	0000	•••			0000	000		

This table shows teacher earnings at Twinkl Primary School. Write each of the teacher's earnings in words.

Mr Pukeko	Mrs Tui	Miss Huia
\$55,243	\$67,342	\$101,438

Read and Write Numbers to 1,000,000

1. Complete the tables.

Nu	mber in Digit	S		Numb	er in Words				
	31,504								
	Р	lace Value	Rej	presentation					
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones			
	•••	•							
Nu	mber in Digit	s		Numb	er in Words				
			Number in Words Representation Number in Words twenty-three thousand, six hundred and forty-nine Representation Is Hundreds Tens Ones Mumber in Words Number in Words Ones Ones Representation It It Number in Words Representation It It It It Representation It It It It It Representation It It						
	Place Value Representation								
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones			
Nu	mber in Digit	s		Numb	er in Words				
	Р	lace Value	Rej	presentation					
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones			
		•••				•••			

This table shows teacher earnings at Twinkl Primary School. Write each of the teacher's earnings in words.

Mr Pukeko	Mrs Tui	Miss Huia
\$55,243	\$67,342	\$101,438

2.

Complete the tables.

Number in Digits				Numb	er in Words	
391,504						
	Р	lace Value	Rep	presentation		
Hundred Thousands	Ten Thousands	Thousand	.s	Hundreds	Tens	Ones
•••		•				

Number in Digits			Number in Words			
903,485						
Place Value Representation						
Hundred Thousands	Ten Thousands	Thousand	.s	Hundreds	Tens	Ones

Mrs Watson bought a new apartment for thirty 2. thousand, two hundred dollars. She writes this in digits as \$30,020. Is she correct? Explain your thinking.



5

5

Finn has the digit cards 4, 6, 7, 1, 5 and, 5. 3.

6

- **a)** What is the smallest number he can make using all the digits?
- **b)** What is the biggest number he can make using all the digits?







Complete the tables.

Number in Digits			Number in Words				
391,504							
	Place Value Representation						
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones	
		•					

Number in Digits			Number in Words			
903,485						
Place Value Representation						
Hundred Thousands	Ten Thousands	Thousand	.s	Hundreds	Tens	Ones

Mrs Watson bought a new apartment for thirty thousand, two hundred dollars. She writes this in digits as \$30,020. Is she correct? Explain your thinking.

Finn has the digit cards 4, 6, 7, 1, 5 and, 5.

6

a) What is the smallest number he can make using all the digits?

b) What is the biggest number he can make using all the digits?



4

2.

3.



Complete the tables.

3.

Number in Digits			Number in Words				
301,504							
Place Value Representation							
Hundred Thousands	Ten Thousands	Thousand	ls	Hundreds	Tens	Ones	
•••		•		000			

Number in Digits			Number in Words			
			Nine hundred thousand, and sixty-one			
	Place Value Representation					
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones

Griffin has the digit cards 4, 6, 7, 1, 0 and, 5.

- a) What is the smallest number he can make using all the digits?
- **b)** What is the biggest number he can make using all the digits?

4	6	7	1	0	5
---	---	---	---	---	---

Find the mistakes in this table, underline them and explain why this is a mistake.

Number as Digits	Number as Words
410,410	Four hundred and one thousands, four hundred and one
723,812	Seven hundred and twenty-three thousand, eight hundred and twelve
699,400	Six hundred and ninety-nine thousand, and forty

Read and Write Numbers to 1,000,000

Complete the tables.

Number in Digits			Number in Words				
301,504							
Place Value Representation							
Hundred Thousands	Ten Thousands	Thousands	s	Hundreds	Tens	Ones	
•••		•					

Number in Digits			Number in Words				
			Nine hundred thousand, and sixty-one				
Place Value Representation							
Hundred Thousands	Ten Thousands	Thousand	s	Hundreds	Tens	Ones	

Griffin has the digit cards 4, 6, 7, 1, 0 and, 5.

a) What is the smallest number he can make using all the digits?

b) What is the biggest number he can make using all the digits?



2.

3.

Find the mistakes in this table, underline them and explain why this is a mistake.

Number as Digits	Number as Words
410,410	Four hundred and one thousands, four hundred and one
723,812	Seven hundred and twenty-three thousand, eight hundred and twelve
699,400	Six hundred and ninety-nine thousand, and forty

Read and Write Numbers to 1,000,000 | Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

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 \mid Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

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 | Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

To read and write numbers to 1,000,000	
I can read and write numbers up to 1,000,000 as words.	
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Read and Write Numbers to 1,000,000 | Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

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 | Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

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 | Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

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 Nur	nbers to	1,000,	000	Recognise	Numbers
in Digits,	Diagrams	and Wo	rds up	to 1,0	000,000	

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 | Recognise Numbers in Digits, Diagrams and Words up to 1,000,000

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.				

Mathematics | Number Identification | Read and Write Numbers to 1,000,000 Recognise Numbers in Digits, Diagrams and Words up to 1,000,000 | Lesson 1 of 4