1) 124 025

2)

HTh	TTh	Th	H	T	O

3) Accept any two missing parts that total 2800. For example:

2000 and 800 or 1000 and 1800

4) a) 30 000

b) 300 000

c) 3000

d) 3

e) 30

f) 300

1) No because there should be zero placeholders (and no counters) in the ten thousands and hundreds columns. There should be three counters in the thousands column, four counters in the tens column and one counter in the ones column.

2) Zeke is incorrect. The missing number in the first statement is 8000 but the missing number in the second statement is 80 000.

3)

a)

	hundred thousands digit is odd	hundred thousands digit is even
ten thousands digit is odd	573 602 (101 004) **795 032**	816 502 (795 032) **870 517**
ten thousands digit is even	(428 608) 701 923 **101 004**	(870 517) 288 041 **428 608**

b) Open-ended question so answers will vary.

1) There are many possible answers. For example:

501 110, 530 000, 222 002, 100 340

2)

a) 970 000, 860 000, 750 000, 640 000, 530 000, 420 000, 310 000, 201 000, 200 100, 200 010, 200 001

3) Open-ended question so answers will vary.

Numbers to 1 000 000

1) What number is represented on the place value chart?

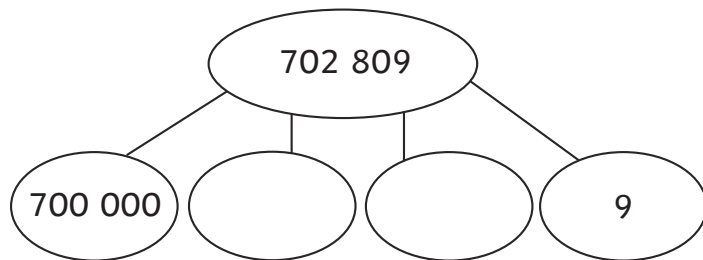| Thousands			Ones		
HTh	TTh	Th	H	T	O
●	● ●	● ● ● ●		● ●	● ● ● ● ●

[   ]

2) Represent these numbers with counters on the place value chart.

a) two hundred and three thousand, five hundred and thirty

b) nine hundred and sixty thousand and fifty-one

HTh	TTh	Th	H	T	O

3) Complete the part-whole model.

702 809

700 000   (   )   (   )   9

4) What is the value of the digit 3 in each of these numbers?

a) 437 902 _____

b) 302 791 _____

c) 803 102 _____

d) 980 123 _____

e) 201 530 _____

f) 400 368 _____

Numbers to 1 000 000

1) Is the number 703 041 represented correctly on the place value chart? Explain your reasoning.

Thousands			Ones		
HTh	TTh	Th	H	T	O
●● ●● ●● ●	●● ●		●● ●●	●	

_____

_____

_____

_____

2) Is Zeke correct? Explain your reasoning.

Zeke

I think the missing number in both statements is 8000.

7 + 300 + _____ + 20 000 + 50 + 400 000 = 428 357

500 + 9 + _____ + 800 000 + 3000 = 883 509

_____

_____

_____

3) a) Circle the numbers that have been sorted incorrectly on the Carroll diagram and then write them in the correct places.
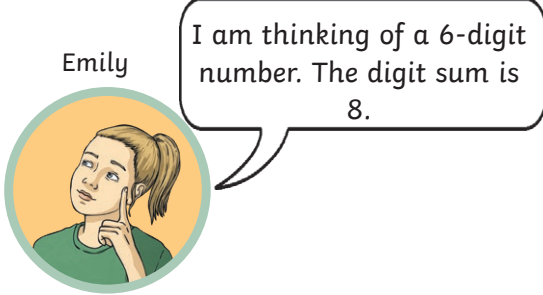
	hundred thousands digit is odd	hundred thousands digit is even
ten thousands digit is odd	573 602 101 004	816 502 795 032
ten thousands digit is even	428 608 701 923	870 517 288 041

b) Choose three of your own 6-digit numbers and write them in the correct place on the Carroll diagram.

Numbers to 1 000 000

1) Find four possible numbers that Emily could be thinking of.

Emily

I am thinking of a 6-digit number. The digit sum is 8.

2) Find all of the numbers that match all of these statements.

The number has six digits.

The difference between the hundred thousands digit and the ten thousands digit is 2.

The hundred thousands digits is the greatest digit.

There are four zeros as placeholders.

3) Four children each think of a 6-digit number and write it on a sticky note.

307 303   809 707   609 505   109 457

Choose one of the numbers and partition it in four different ways using different representations.

Diving into Mastery

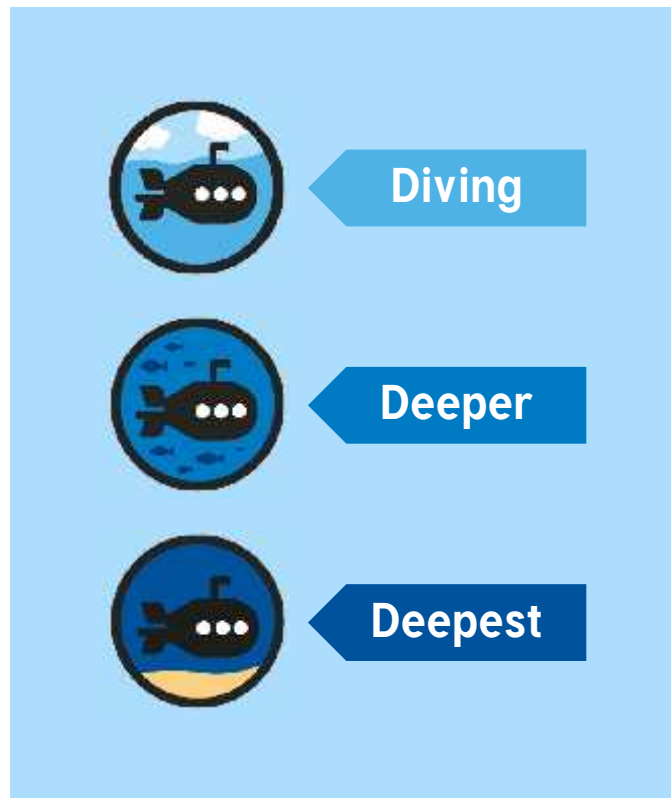100

1 000 000

10 000

1 000 000

100

1 000 000

10

Numbers to 1 000 000

Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:

Diving

Deeper

Deepest

These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

Aim

- Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.

100

10

Write the number represented on each place value chart.

a)

HTh	TTh	Th	H	T	O
●	●● ●● ●		●● ●● ●	●	●● ●● ●●

b)

HTh	TTh	Th	H	T	O
●● ●	●● ●● ●	●	●	●●	●● ●●

c)

HTh	TTh	Th	H	T	O
●● ●● ●	● ● ●	●● ●●	●		●

d)

HTh	TTh	Th	H	T	O
●● ● ●●	●		●● ●● ●●	● ● ●	●●

What is the value of the bold, underlined digit in each number?

6**<u>5</u>**7 902

527 **<u>3</u>**91

<u>8</u>06 268

9**<u>2</u>**0 705

82**<u>5</u>** 120

I think the missing number in both statements is 90 000.

Zeke

Is Zeke correct? Explain your reasoning.

7 + 100 + 6000 + _____ + 50 + 400 000 = 496 157

500 + 9 + _____ + 6000 = 960 509

Which numbers have been sorted incorrectly on the Carroll diagram? Where should they go?

	hundred thousands digit is odd	hundred thousands digit is even
ten thousands digit is odd	(670 517) 573 102	816 502 (731 923)
ten thousands digit is even	(422 601) 965 032	288 041 (901 004)

Here are four 6-digit numbers written on sticky notes.

697 391	903 286	400 568	294 050

Choose one of the numbers and partition it in four different ways using different representations.

You could use part-whole models, bar models or place value charts.

Numbers to 1 000 000

Dive in by completing your own activity!

Diving into Mastery

100

1 000 000

10

1 000 000

100

1 000 000

10

Numbers to 1 000 000

1) What number is represented on the place value chart?

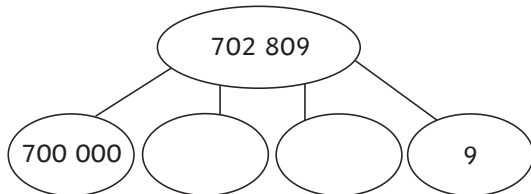| Thousands			Ones		
HTh	TTh	Th	H	T	O
●	● ●	● ● ● ●		● ●	● ● ● ● ●

2) Represent these numbers with counters on the place value chart.

a) two hundred and three thousand, five hundred and thirty

b) nine hundred and sixty thousand and fifty-one

HTh	TTh	Th	H	T	O

3) Complete the part-whole model.

702 809

700 000 ⬡ ⬡ 9

4) What is the value of the digit 3 in each of these numbers?

a) 437 902

b) 302 791

c) 803 102

d) 980 123

e) 201 530

f) 400 368

Numbers to 1 000 000

1) Is the number 703 041 represented correctly on the place value chart? Explain your reasoning.

Thousands			Ones		
HTh	TTh	Th	H	T	O
⬤⬤ ⬤⬤ ⬤⬤ ⬤	⬤⬤ ⬤		⬤⬤ ⬤⬤	⬤	

2) Is Zeke correct? Explain your reasoning.

Zeke

I think the missing number in both statements is 8000.

7 + 300 + _____ + 20 000 + 50 + 400 000 = 428 357

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3) a) Circle the numbers that have been sorted incorrectly on the Carroll diagram and then write them in the correct places.

	hundred thousands digit is odd	hundred thousands digit is even
ten thousands digit is odd	573 602 101 004	816 502 795 032
ten thousands digit is even	428 608 701 923	870 517 288 041

b) Choose three of your own 6-digit numbers and write them in the correct place on the Carroll diagram.

Number Line to 1 000 000

1) Find four possible numbers that Emily could be thinking of.

Emily

I am thinking of a 6-digit number. The digit sum is 8.

2) Find all of the numbers that match all of these statements.

The number has six digits.

The hundred thousands digits is the greatest digit.

The difference between the hundred thousands digit and the ten thousands digit is 2.

There are four zeros as placeholders.

3) Four children each think of a 6-digit number and write it on a sticky note.

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809 707

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