



Erina Heights Public School

Learning from Home - Stage 3

Term	1	2	3	4								
Weeks	1	2	3	4	5	6	7	8	9	10	11	

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00	Daily Zoom Meeting 5B Zoom Link 5/6R Zoom Link 6S Zoom Link				
Morning	Literacy Activities	Literacy Activities	Literacy Activities	Literacy Activities	Literacy Activities
	Recess Break				
Middle	Maths Activities	Maths Activities	Maths Activities	Maths Activities	Maths Activities
	Manga High	Manga High	Manga High	Manga High	Manga High
	Lunch Break				
Afternoon	Olympics Project	Olympics Project	Olympics Project	Olympics Project	Olympics Project
Optional Activities	Last year, the Office of the Advocate for Children and Young People launched a website called Digital Lunchbreak. Children and young people can learn, create and discover through digital workshops, learning materials, virtual excursions and more. Visit the Digital Lunchbreak website by clicking here www.digitallunchbreak.nsw.gov.au				



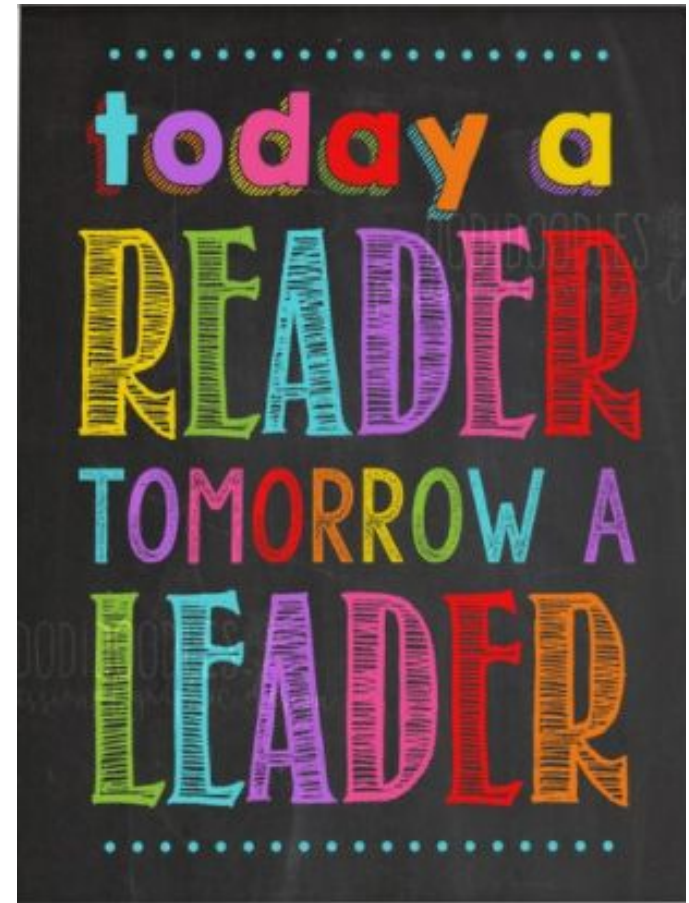
Literacy Activities

Stage 3 – Week 2

EXPECTATIONS

'All things are difficult before they become easy'

- Do one activity each day.
- If you get stuck, send your teacher a message on Google Classroom.
- You can add extra slides to do your answers, otherwise you can do your work in a Google doc or workbook at home.
- Submit your work on Google Classroom.
- Do the best you can! 😊



WONDEROPOLIS

Why do Cicada's emerge every 17 years?

<https://wonderopolis.org/wonder/Why-Do-Cicadas-Emerge-Every-17-Years>

What to do?

- Scan the QR code or click the link above to be taken to the website.

Answer these questions:

- How loud are cicadas?
- Why do cicadas emerge every 17 years?
- What is the life cycle of the cicada?

Vocabulary

Take the wonder words challenge and match words to their meanings. You will find this on the right side of the website. See picture for clue ☐

Test Your Knowledge

On the right hand side of the screen, you will see a green box that says 'Did you get it?' Click this button to test your knowledge. See picture for clue ☐



ADVERBS

Adverbs describe the verb by adding more information.

Use the highlight tool  to highlight the adverbs in these sentences.

- 1. The child was happily playing with his friends.
- 2. She desperately wanted to eat chocolate cake for dessert.
- 3. The cat walked expertly along the window sill.
- 4. The questions were hard but I answered many correctly.
- 5. Mum crept quietly down the hall way so she didn't wake my baby brother.



What is an adverb you ask? Watch the YouTube clip for more information.

Write 5 of your own sentences using adverbs. Highlight the adverbs in each sentence.

Change the adjectives below to make them adverbs. The first two have been done for you.

happy	happily	wild		careless		helpful	
crazy	crazily	active		lucky		terrifying	
lazy		terrible		normal		strange	

TYPING CLUB

Practise your typing skills - 20 minutes.

www.typingclub.com

You will need:

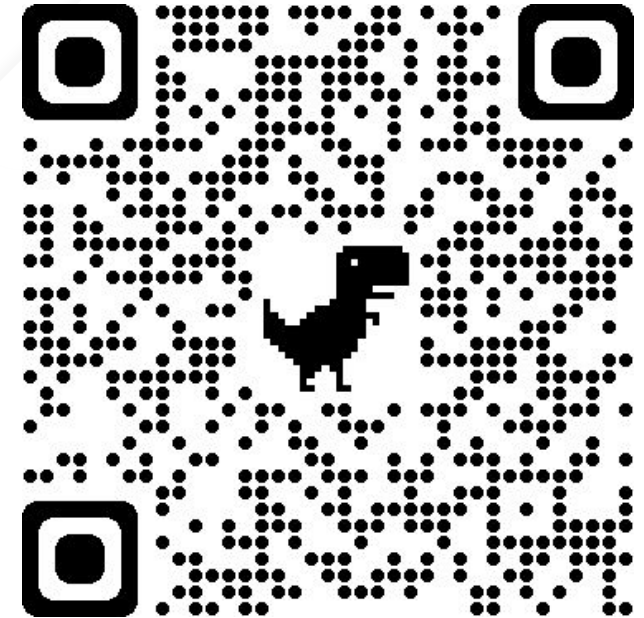
- An iPad or laptop and headphones if working in a group.

What to do:

- Scan the QR code or click the website above.

Do the following:

- Click the 'Get Started' button.
- Click on a lesson to begin. You may like to take the placement test but this is optional. The first lesson is just a video.
- Use the allocated time to practise your typing skills whilst working through the levels.



WRITING TASK 1

Tightening Tension

Tightening the Tension

How can you create nail-biting tension in your writing? It's simple. Fill your scene with detail to make the reader feel as if they were really there. Use the five senses as a guide.

Imagine a volcano erupting. Close your eyes and think what you would:

- See (Smoke, people running, fire spurting, ash floating in the air...)
- Hear (Rumblings, people crying out, animals squealing, sirens blasting...)
- Touch (Hot air, ash, scratches and bruises, people pushing you...)
- Taste (Sweat, blood, thirst, and the taste of fear...)
- Smell (Smoke, heat, sweat, burning...)



Go to the next slide for your activity

So what does it look like?

Before

Tim stood ready at the top of the run. His friends had already had their turn. Now it was Tim's go. He had to beat a time of two minutes. He went through the starting gates and down the slopes as fast as he could. It was all over. He had finished. He looked back to see the clock. One minute and 58 seconds. Tim had won!

After

Tim took a deep breath, dug his poles firmly into the snow and looked at the starter. 'Racer ready,' said the man. Tim gulped and tried to nod. 'Three. Two. One. Go!' With a heave, Tim hurled himself downhill. He pushed hard, heading for the first gate, working for speed. Past the gate, moving fast now, aiming for the second gate. He clipped it with his shoulder, taking it tight. The next gate coming fast - too fast. He felt his knees shudder, trying to keep the edge. Through somehow. He was nearly at the icy patch where people had spun out earlier in the day. Careful now. Careful. Past and clear! The finish line loomed ahead. He tucked. 'Go hard,' he could hear his own voice say. 'Go!' A cheer from the crowd. A pause. He shuddered to a halt and looked back to see the clock. One minute and 58 seconds. Tim had won!

WRITING TASK 1

Tightening Tension

1. Watch the following YouTube clip.



2. Describe the 'Pebble, Rock and Boulder' moments in this scene:

Pebble –

Rock –

Boulder –

3. How could you judge whether you used tension well in your story? *Think about how you felt watching the Youtube clip.*

WRITING TASK 2

Tightening Tension

Read the sizzling start below and finish the story.

We raced around the corner. I could see the finish line, it seemed impossibly far away. My rival was right on my heels, I couldn't let him beat me, not this time. Sweating and puffed, we raced, side-by-side towards the finish line.

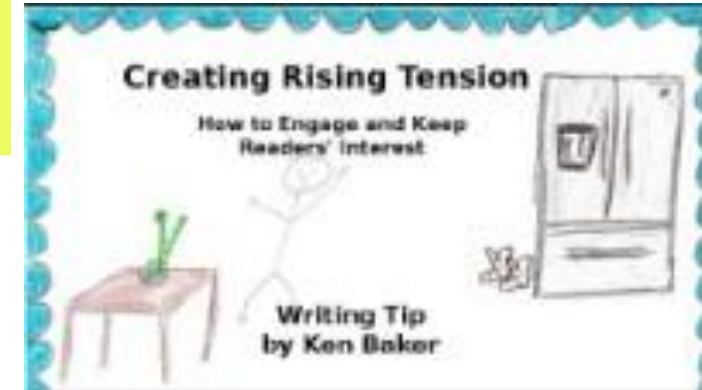
Your Goal

To create tension in your story by applying the 'Pebble, Rock, Boulder' approach to your writing.

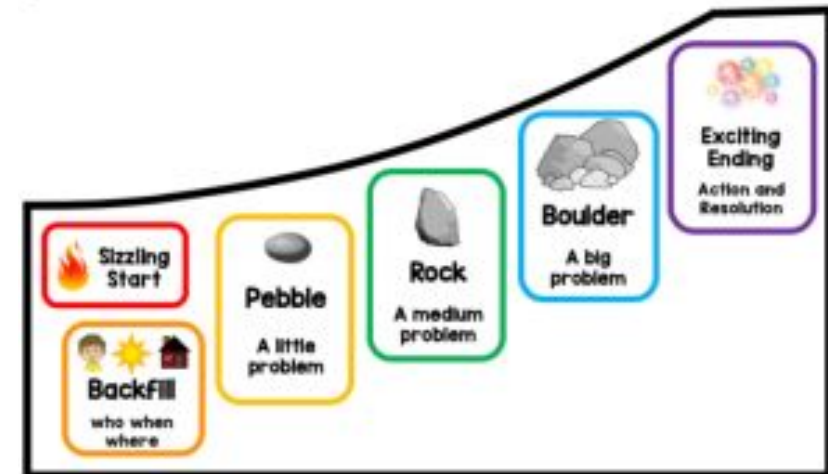
Pebble – The hero's problem gets worse

Rock – Things get even worse

Boulder – It looks as though things couldn't get any worse BUT the hero succeeds and all is well.



Watch this YouTube clip for more tips on creating tension in your story.



Monday's Ignition Activity



SOLUTION ID: 54434

ID: 54434 EASY **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$\begin{array}{|c|c|c|} \hline \text{6} & + & \text{3} \\ \hline \end{array} = 9$$

$$\begin{array}{|c|c|c|} \hline + & + & \\ \hline \text{9} & + & \text{2} \\ \hline \end{array} = 11$$

$$\begin{array}{|c|c|c|} \hline = & = & \\ \hline 15 & 5 & \end{array}$$

$$1 = v \quad 5 = n$$

$$2 = g \quad 6 = e$$

$$3 = t \quad 8 = w$$

$$4 = c \quad 9 = a$$



Solveemoji.com

11/15 (73%)

SOLUTION ID: 54451

ID: 54451 MEDIUM **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$18 + 18 + 18 = 54$$

$$10 \times 9 + 9 = 99$$

$$5 \times 5 + 10 = 35$$

$$18 + 5 \times 20 = 118$$

Solveemoji.com

15/56 (26%)

SOLUTION ID: 54431

ID: 54431 HARD **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$12 + 10 + 12 = 34$$

$$9 + 18 + 12 = 39$$

$$10 + 9 + 10 = 29$$

$$12 \times 10 \times 9 = 1080$$

Solveemoji.com

4/81 (4%)

Tuesday's Ignition Activity



SOLUTION ID: 54411

ID: 54411 EASY **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$8 + 8 + 8 = 24$$

$$1 + 8 + 1 = 10$$

$$7 + 7 + 1 = 15$$

$$1 + 14 \times 8 = 113$$

Solvemoji.com



10/57 (17%)

SOLUTION ID: 54426

ID: 54426 MEDIUM **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$20 + 20 + 20 = 60$$

$$20 + 20 \times 12 = 260$$

$$6 + 6 \times 7 = 48$$

$$10 + 14 \times 12 = 178$$

Solvemoji.com



7/35 (20%)

SOLUTION ID: 54429

ID: 54429 HARD **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$12 + 20 \times 12 = 252$$

$$12 + 12 + 22 = 46$$

$$11 + 20 + 10 = 41$$

$$6 + 11 \times 20 = 226$$

Solvemoji.com



2/3 (66%)

Wednesday's Ignition Activity



SOLUTION ID: 54423

ID: 54423 EASY **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$5 + 2 = 7$$

$$1 + 6 = 7$$

$$= =$$
$$6 \quad 8$$

$$6 + 10 \times 2 = 26$$

Solvemoji.com



11/45 (24%)

SOLUTION ID: 54425

ID: 54425 MEDIUM **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$20 + 20 + 20 = 60$$

$$12 + 20 \times 12 = 252$$

$$12 + 12 \times 10 = 132$$

$$10 + 10 \times 6 = 70$$

Solvemoji.com



12/88 (13%)

SOLUTION ID: 54428

ID: 54428 HARD **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$4 + 20 + 4 = 28$$

$$22 + 4 \times 11 = 66$$

$$10 + 20 + 11 = 41$$

$$20 \times 8 \times 22 = 3520$$

Solvemoji.com



1/3 (33%)

Thursday's Ignition Activity



SOLUTION ID: 54420

ID: 54420 EASY **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$3 + 1 = 4$$

$$1 = d \quad 5 = y$$

$$9 + 8 = 17$$

$$2 = i \quad 8 = g$$

$$=$$

$$3 = o \quad 9 = f$$

$$12 \quad 9$$

$$4 = k \quad 10 = w$$



solvemoji.com



24/218 (11%)

SOLUTION ID: 54408

ID: 54408 MEDIUM **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$9 + 1 = 10$$

$$1 = s \quad 8 = a$$

$$7 \times 8 = 56$$

$$4 = w \quad 9 = t$$

$$=$$

$$5 = n \quad 11 = x$$

$$16 \quad 8$$

$$7 = r \quad 12 = f$$



solvemoji.com



24/57 (42%)

SOLUTION ID: 54412

ID: 54412 HARD **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$16 + 8 + 8 = 32$$

$$18 + 8 + 9 = 35$$

$$4 + 18 + 9 = 31$$

$$8 + 8 \times 18 = 152$$

solvemoji.com



2/5 (40%)

Maths

Week 2 Term 3

Maths Instructions:

1. Watch the instructional videos before beginning the tasks. You may need to watch these more than once.
2. Complete 1 or both activities each day - activities should be completed on paper or in a book. Please draw any tables or diagrams that you need to complete these activities.

Instructional Video Links

Length



STAGE 3
MATHS
Measurement
and
Geometry

Whole Number



Monday





Ignition Activity - choose your level




Answers for today will be posted at the end of the week





ID: 54434 **EASY** Next Level


EMOJI PUZZLES FOR DEVELOPING MINDS

	+		=	9	1 = v	5 = n
+		+			2 = g	6 = e
	+		=	11	3 = t	8 = w
=		=			4 = c	9 = a
15		5				


a













Solvemoji.com

 11/15 (73%)



Answer... 


ID: 54451 **MEDIUM** Next Level

EMOJI PUZZLES FOR DEVELOPING MINDS

	+		+		=	54
	x		+		=	99
	x		+		=	35
	+		x		=	?













Solvemoji.com

 15/56 (26%)



Answer... 


ID: 54431 **HARD** Next Level

EMOJI PUZZLES FOR DEVELOPING MINDS

	+		+		=	34
	+		+		=	39
	+		+		=	29
	x		x		=	?

Solvemoji.com

 4/81 (4%)

Answer... 

Activity 1

How do we change a measurement in kilometres to metres?

A kilometre is a thousand times larger than a metre so we need to multiply by 1000 if converting kilometres into metres.

Example 1:

$$65 \text{ km} \times 1000 = 65\,000 \text{ m}$$

There are 3 zeros added to a whole number when multiplying it by 1000.

That seems easy. Who said I have a few screws loose?!



Example 2:

$$5.42 \text{ km} \times 1000 = 5420 \text{ m}$$

Move the numbers 3 places to the left in each place value column when multiplying a decimal number by 1000. You may need to add a zero to the end of the number to hold its place value.

Look at the place value chart which demonstrates the conversion of 5.42 km to metres.

You will need to add a zero to hold the place value in the ones column.

Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	
			5	.	4	2	km
5	4	2	0	.			m

Tips for converting kilometres to metres

- move the numbers 3 places to the left in each place value column
- add in a zero or take out a decimal point as needed.

Activity 1

1. Look at the following measurements in kilometres on the left. Draw a line to match the equivalent distance represented in metres on the right.

Kilometres	Metres
10 km	120 000 m
6.2 km	8990 m
8.99 km	6200 m
23 km	50 450 m
120 km	10 000 m
50.45 km	23 000 m

Activity 1

What if we needed to change a measurement in metres to kilometres? How would we do this?

If a metre is one thousandth of a kilometre, then we need to divide by 1000 if converting metres to kilometres.

Example 1:

$$4000 \text{ m} \div 1000 = 4 \text{ km}$$

$$4 \cancel{000} = 4 \text{ km}$$

In this example you can take off the 3 zeros when dividing the number by 1000.



Example 2:

$$6210 \text{ m} \div 1000 = 6.21 \text{ km}$$

Move the numbers 3 places to the right in each place value column when dividing a whole number by 1000. Add in a decimal point.



Activity 1

2. Look at the following measurements in metres on the left. Draw a line to match the equivalent distance represented in kilometres on the right.

Metres	Kilometres
1000 m	5.24 km
3000 m	10.6 km
5240 m	12 km
10 600 m	3 km
12 000 m	1 km
25 350 m	25.35 km

Activity 2

3. Find and match three measurements which are equivalent in the columns below. The first one has been done for you.

35 800 cm	3.58 km	0.358 km
3580 m	358 cm	3.58 m
32.85 km	358 m	358 000 cm
3850 cm	32 850 m	38.5 m
3580 mm	385 cm	3850 mm
3.85 m	38 500 mm	3 285 000 cm

4. Write the equivalent measurements from the columns above in the table below. The first one has been done for you.

35 800 cm	=	358 m	=	0.358 km
	=		=	
	=		=	
	=		=	
	=		=	
	=		=	

Tuesday

Ignition Activity - choose your level

Answers for today will be posted at the end of the week



ID: 54411 EASY **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$\begin{array}{lclcl} \text{🚶} & + & \text{🚶} & + & \text{🚶} & = & 24 \\ \text{🧘} & + & \text{🚶} & + & \text{🧘} & = & 10 \\ \text{🚶} & + & \text{🚶} & + & \text{🧘} & = & 15 \\ \text{🧘} & + & \text{🚶🚶} & \times & \text{🚶} & = & ? \end{array}$$

[solveemoji.com](https://www.solveemoji.com)



10/57 (17%)

Answer...



ID: 54426 MEDIUM **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$\begin{array}{lclcl} \text{😼} & + & \text{😼} & + & \text{😼} & = & 60 \\ \text{😼} & + & \text{😼} & \times & \text{😼} & = & 260 \\ \text{😼} & + & \text{😼} & \times & \text{😼} & = & 48 \\ \text{😼} & + & \text{😼} & \times & \text{😼} & = & ? \end{array}$$

[solveemoji.com](https://www.solveemoji.com)



7/35 (20%)

Answer...



ID: 54429 HARD **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$\begin{array}{lclcl} \text{🐟} & + & \text{🦀} & \times & \text{🐟} & = & 252 \\ \text{🐟} & + & \text{🐟} & + & \text{🦈} & = & 46 \\ \text{🦈} & + & \text{🦀} & + & \text{🦀} & = & 41 \\ \text{🐟} & + & \text{🦈} & \times & \text{🦀} & = & ? \end{array}$$

[solveemoji.com](https://www.solveemoji.com)



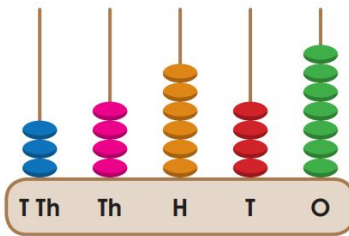
2/3 (66%)

Answer...



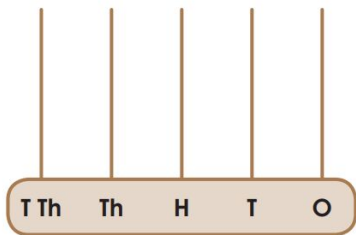
Activity 1

3. Look at the number below. Answer the questions by drawing beads and by writing the number as it changes each time.

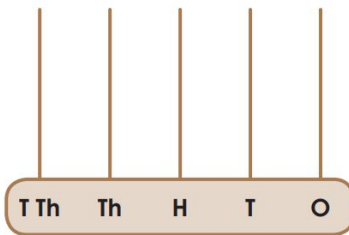


34 647

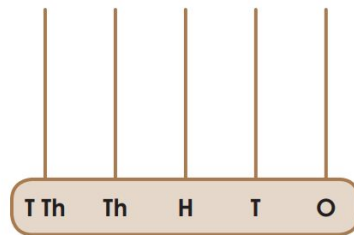
- a. one thousand, two hundred less than 34 647



- b. thirty thousand and ten more than 34 647



- c. eleven thousand, six hundred less than 34 647



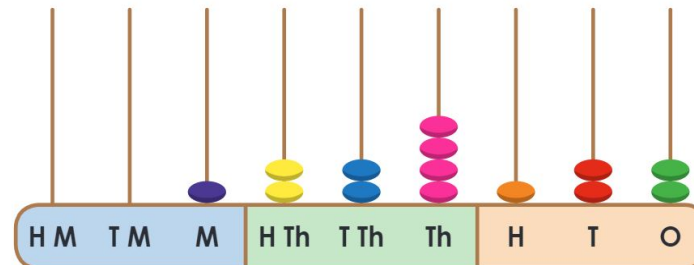
4. Record your answers to the following questions about the number below.

2 231 705

- What does the digit in the hundreds place represent?
- What is the place value of the 1 in the number?
- What is the purpose of the 0 in the number?
- What is the place value of the three in the number?

5. Write the number represented on each abacus.

- a.



Activity 2

We will now explore prime numbers up to 100.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Eratosthenes of Cyrene was a Greek mathematician who lived from 275 BC to 195 BC. He discovered a way to find smaller prime numbers using some simple steps.

2. Follow **Eratosthenes'** method to find all of the prime numbers up to 100.

Step 1. Draw a line through the number 1.

Step 2. Circle the number 2 and draw a line through all other numbers in the two times tables up to 100.

Step 3. Circle the number 3 and draw a line through all other numbers in the three times tables up to 100.

Step 4. Circle the number 5 and draw a line through all other numbers in the five times tables up to 100.

Step 5. Circle the number 7 and draw a line through all other numbers in the seven times tables up to 100.

Step 6. Circle the remaining numbers up to 100. The circled numbers are your prime numbers.

Activity 2

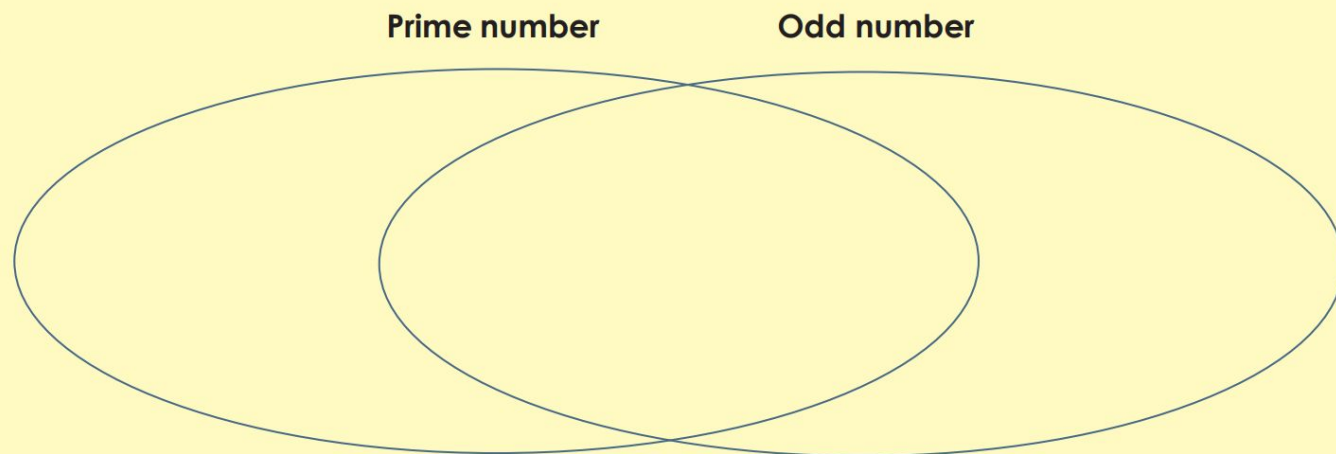
3. Using the hundreds chart, list all the prime numbers up to 100.

4. Is there anything interesting about odd and even numbers in your list above?

5. Write the prime numbers from 0 - 50 in the Venn diagram below by sorting them into the two categories.

Tip:

If a number is both a prime number and an odd number, write it in the middle where the ovals overlap.



Wednesday

Ignition Activity - choose your level

Answers for today will be posted at the end of the week



ID: 54423 EASY **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$\text{Soccer Ball} + \text{2} = 7$$

$$\text{Tennis Ball} + \text{Baseball} = 7$$

=

=

6

8

$$\text{Baseball} + \text{Soccer Ball} \times \text{Tennis Ball} = ?$$

[solveemoji.com](https://www.solveemoji.com)



11/45 (24%)

Answer...



ID: 54425 MEDIUM **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$\text{Baseball Cap} + \text{Baseball Cap} + \text{Baseball Cap} = 60$$

$$\text{Rainbow Bowl} + \text{Baseball Cap} \times \text{Rainbow Bowl} = 252$$

$$\text{Rainbow Bowl} + \text{Rainbow Bowl} \times \text{Pizza Slice} = 132$$

$$\text{Baseball Cap} + \text{Pizza Slice} \times \text{Rainbow Bowl} = ?$$

[solveemoji.com](https://www.solveemoji.com)



12/88 (13%)

Answer...



ID: 54428 HARD **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

$$\text{Volleyball} + \text{Football} + \text{Volleyball} = 28$$

$$\text{Bowling Pins} + \text{Volleyball} \times \text{Bowling Pins} = 66$$

$$\text{Football} + \text{Football} + \text{Bowling Pins} = 41$$

$$\text{Football} \times \text{Volleyball} \times \text{Bowling Pins} = ?$$

[solveemoji.com](https://www.solveemoji.com)



1/3 (33%)

Answer...



Activity 1

3. Change the decimal measurements in kilometres to a measurement in metres and kilometres. **Hint:** the number to the left of the decimal point is kilometres and the number to the right represents metres. Make sure you check your answer to see if you need a zero as a place holder.

a. 15.70 km = _____ km _____ m

b. 7.48 km = _____ km _____ m

c. 21.602 km = _____ km _____ m

d. 55.437 km = _____ km _____ m

e. 3.201 km = _____ km _____ m

f. 8.750 km = _____ km _____ m

g. 9.208 km = _____ km _____ m

h. 4.055 km = _____ km _____ m

i. 36.758 km = _____ km _____ m

Activity 1

4. Solve the following word problems using your converting skills.

- a. On Monday to Friday, Jean walks to and from the train station, which is 620 m from her apartment. How many kilometres does she walk to and from the station in total each week? Use the space to show your working.



- b. At athletics training, Adrian ran 5.55 km while Lily ran 8 laps of the 400 m track. Who ran the longest distance at training, Lily or Adrian? Use the space to show your working.



Activity 2

So what are the rules for converting between different units of measurement of length?



The larger the unit of measurement, the less there are of them!

This example shows how to convert 3194 metres to kilometres.

1000	100	10	1	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
3	1	9	4	•			
			3	•	1	9	4

3194 metres is equal to 3.194 kilometres. This can also be written as 3 km 194 m.



The smaller the unit of measurement, the more there are of them!

This example shows how to convert 5.628 kilometres to metres.

1000	100	10	1	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
			5	•	6	2	8
5	6	2	8	•			

5.628 kilometres is equal to 5628 metres. This can also be written as 5 km 628 m.

Activity 2

5. Convert the kilometres and metres to kilometres. **Hint:** use your knowledge of place value to help you. The first one has been done for you.

a. 37 km and 200 m = 37.2 km

b. 14 km and 600 m = _____

c. 18 km and 25 m = _____

d. 97 km and 4 m = _____

e. 75 km and 9 m = _____

f. 43 km and 100 m = _____

g. 153 km and 42 m = _____

h. 374 km and 1 m = _____



6. Convert the metres and centimetres to metres. The first one has been done for you.

a. 61 m and 7 cm = 61.07 m

b. 4 m and 9 cm = _____

c. 9 m and 10 cm = _____

d. 23 m and 6 cm = _____

e. 14 m and 40 cm = _____

f. 36 m and 90 cm = _____





Thursday

Ignition Activity - choose your level




Answers for today will be posted at the end of the week






ID: 54420 EASY **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

	+		=	4
+		+		
	+		=	17
=		=		
12		9		





1 = d	5 = y
2 = i	8 = g
3 = o	9 = f
4 = k	10 = w

  
solvemoji.com





  24/218 (11%)



Answer... 


ID: 54408 MEDIUM **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

	+		=	10
+		x		
	x		=	56
=		=		
16		8		













1 = s	8 = a
4 = w	9 = t
5 = n	11 = x
7 = r	12 = f

   
solvemoji.com



  24/57 (42%)


Answer... 

ID: 54412 HARD **Next Level**
EMOJI PUZZLES FOR DEVELOPING MINDS

	+		+		=	32
	+		+		=	35
	+		+		=	31
	+		x		=	?

solvemoji.com

  2/5 (40%)

Answer... 

Activity 1

Partitioning numbers in non-standard form

Before carrying out a mental calculation, we often use expanded notation to partition numbers in a standard form. Breaking the numbers down in this way helps us to calculate mentally. Here is an example of partitioning in standard form:

standard partitioning

$$\begin{aligned} & 25\,342 + 33\,216 \\ &= 20\,000 + 5000 + 300 + 40 + 2 + 30\,000 + 3000 + 200 + 10 + 6 \\ &= 20\,000 + 30\,000 = 50\,000 \\ &5000 + 3000 = 8000 \\ &300 + 200 = 500 \\ &40 + 10 = 50 \\ &2 + 6 = 8 \\ &= 58\,558 \end{aligned}$$

Numbers can also be partitioned using **non-standard forms** to help with mental calculations. This is different because it does not use expanded notation but instead breaks the number down in other ways.

Let's look at two examples:

non-standard partitioning

Example 1

$$\begin{aligned} & 25\,342 + 33\,216 \\ &= 25\,000 + 30\,000 + 3558 \\ &= 55\,000 + 3558 \\ &= 58\,558 \end{aligned}$$

In this example, the numbers 25 342 and 33 216 have been partitioned into smaller numbers to help calculate the answer.

Example 2

$$\begin{aligned} & 25\,342 + 33\,216 \\ &= 25\,000 + 25\,000 + 8558 \\ &= 50\,000 + 8558 \\ &= 58\,558 \end{aligned}$$

In this example, the numbers 25 342 and 33 216 have been partitioned into smaller numbers so the near doubles strategy can be used to calculate the answer. 25 000 is doubled and then 8558 is added.

Activity 1

1. Use non-standard partitioning to solve the following problems. Show your working in the space provided.

a. $11\,000 + 14\,556$

b. $13\,162 + 12\,000$

c. $15\,389 + 17\,210$

d. $130\,000 + 123\,555$

e. $163\,480 + 124\,317$

f. $400\,539 + 578\,000$

Activity 2

A **square number** is a number that is formed from multiplying an integer by itself.
A square number can be represented in the shape of a square, by using cubes.



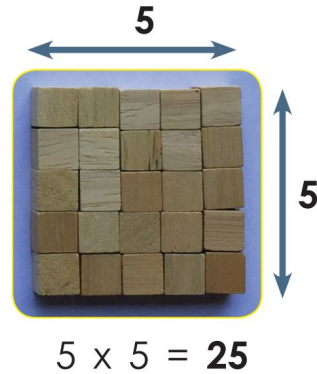
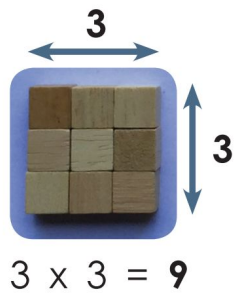
Remember an **integer** is any whole number.

Square numbers are sometimes called perfect squares!



Activity 2

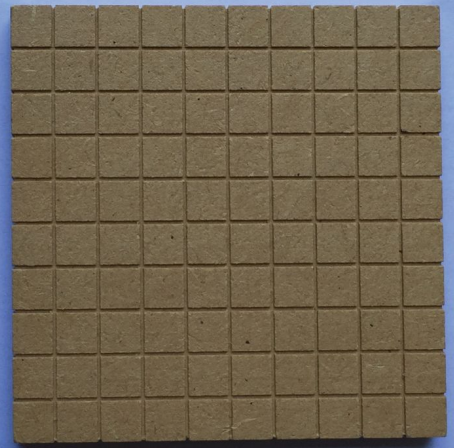
On the right, you can see examples of square numbers. The numbers **3** and **5** have been multiplied by themselves to give the square numbers **9** and **25**.



Making square numbers

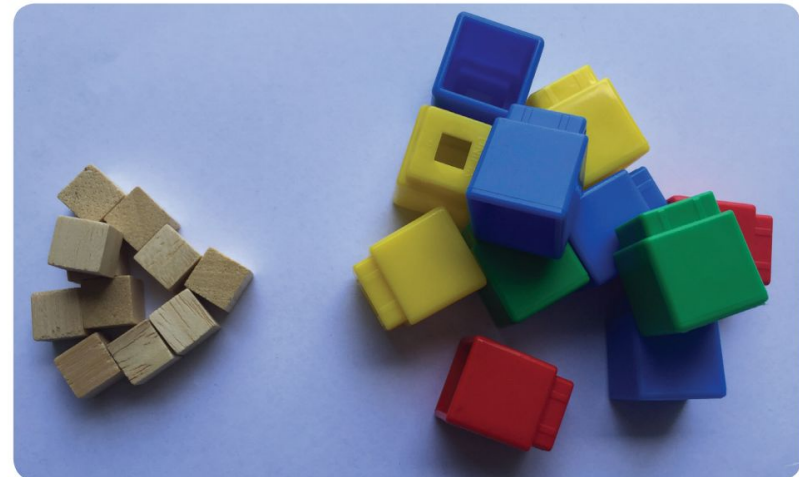
2. It is now your turn to make square numbers.

Using counters, marbles or Lego blocks, make as many square numbers as you can. 1 is a square number because $1 \times 1 = 1$.



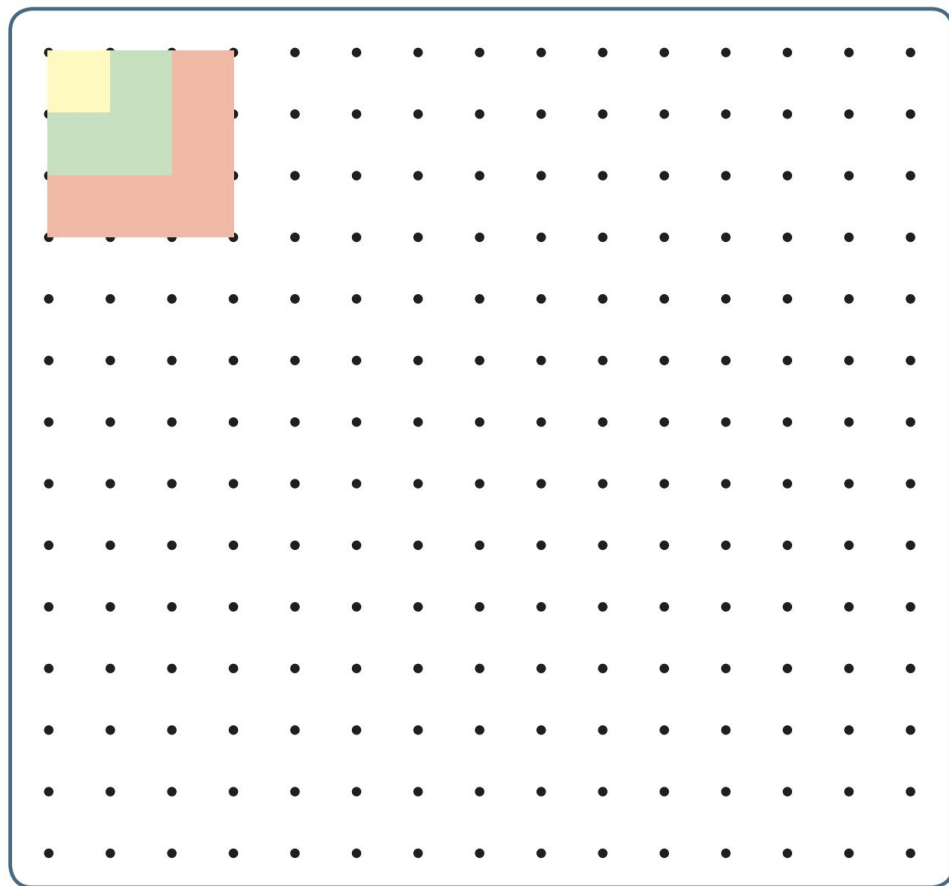
1. Look at the MAB flat opposite, it is a square.

Explain why it represents a square number.



Activity 2

4. Using the grid below, draw and shade to show how the square numbers increase in size. Increase the width and length of the square by one dot each time. Use a different colour for each new square number. The first three have been shaded for you.



5. Complete the number sentences below to show the patterns in square numbers. Use your drawings on the previous page and the examples below to help you complete the pattern.

$$1 \times 1 \text{ square} = 1$$

$$2 \times 2 \text{ square} = 1 + 3 = 4$$

$$3 \times 3 \text{ square} = 1 + 3 + 5 = 9$$

$$4 \times 4 \text{ square} = 1 + 3 + 5 + \boxed{7} = 16$$

$$5 \times 5 \text{ square} = \boxed{} = \boxed{}$$

$$6 \times 6 \text{ square} = \boxed{} = \boxed{}$$

$$7 \times 7 \text{ square} = \boxed{} = \boxed{}$$

$$8 \times 8 \text{ square} = \boxed{} = \boxed{}$$

$$9 \times 9 \text{ square} = \boxed{} = \boxed{}$$

$$10 \times 10 \text{ square} = \boxed{} = \boxed{}$$

Activity 2

6. Look at the difference between each square number, shown on the previous page.

Describe the pattern that you see. _____

7. The difference between every square number is always: (tick one box) **odd**

☐

even

☐

8. What are the first 10 square numbers?

9. Circle the numbers in each set which are **not** square numbers.

a. 1, 3, 5, 9, 16

b. 36, 49, 64, 72, 81

c. 4, 25, 100, 120, 144

d. 9, 81, 65, 121, 169

Friday

Ignition Activity

Work it out

The answer is:

$$\frac{3}{4}$$

What is the question?

Activity 1

5. Read the following information about a long-distance running event conducted over 6 days. Use it to answer the questions below. You may use a calculator to check your answers.

	Fred	Ted
Day 1	8042 m	8739 m
Day 2	9860 m	7930 m
Day 3	6678 m	9385 m
Day 4	5570 m	7646 m
Day 5	8820 m	8830 m
Day 6	?	?

- a. How many kilometres has Fred run so far in the event? _____
- b. How many kilometres has Ted run so far in the event? _____
- c. Who is in the lead after five days? _____
- d. If the running event is 45 km long, how much further does Fred have left to run? _____
- e. How many metres does Ted have to run on day 6? _____

f.
If the daily distances were rounded off to the nearest kilometre, how would this affect the result?

Show your working.

Activity 2

To **convert millimetres** to **centimetres**, divide the millimetres by 10 as $10 \text{ mm} = 1 \text{ cm}$. Look at the example below.



The digits before the decimal point represent **centimetres**.

convert 42 mm to cm

$$= 42 \text{ mm} \div 10$$

= 4 cm and 2 mm

$$= 4.2 \text{ cm}$$

There are **10 mm** in **1 cm**.

The digits after the decimal point represent **millimetres**.

To **convert metres** to **kilometres**, divide the metres by 1000 as $1000 \text{ m} = 1 \text{ km}$. Look at the example below.

convert 46 300 m to km

$$= 46\,300 \text{ m} \div 1000$$

= 46 km and 300 m

$$= 46.3 \text{ km}$$

There are **1000 m** in **1 km**.

The digits before the decimal point represent **kilometres**.

The digits after the decimal point show **metres**.

Activity 2

1. Convert the following units of measurement.

a. 15.7 cm	=		cm		mm	b. 7.048 km	=		km		m
c. 21.602 km	=		km		m	d. 55.37 m	=		m		cm
e. 32.01 m	=		m		cm	f. 87.5 cm	=		cm		mm
g. 9.08 m	=		m		cm	h. 46.304 km	=		km		m

2. Write the following measurements in decimal form.

a. 1 metre 27 centimetres	=		m	b. 10 metres 30 centimetres	=		m
c. 5 metres 85 centimetres	=		m	d. 2 metres 5 centimetres	=		m
e. 0 metres 91 centimetres	=		m	f. 6 metres 8 centimetres	=		m

3. Convert the following measurements into centimetres and millimetres. The first answer has been completed for you.

a. 51 mm	=	5	cm	/	mm	b. 72 mm	=		cm		mm
c. 98 mm	=		cm		mm	d. 160 mm	=		cm		mm
e. 385 mm	=		cm		mm	f. 2 mm	=		cm		mm
g. 591 mm	=		cm		mm	h. 124 mm	=		cm		mm

Optional Weekly Challenge

MOUNTAIN

Around the World - Geography

maths



You will need:

Pencil and paper

- ☐ 1. Research a well-known mountain from a different country and record its height.
- ☐ 2. Ask 9 friends for the name of the mountain they chose. Record the height of these mountains in a table, including your own. (NOTE: research 10 mountains in total if you are unable to obtain data from your peers).
- ☐ 3. Using the information from the table, record the heights of the 10 mountains in millimetres, centimetres, metres and kilometres.
- ☐ 4. Graph the height of the 10 mountains using a graph of your choice. NOTE: the chosen graph must be the most appropriate.
- ☐ 5. Estimate the area of the base of your chosen mountain in cubic metres.
- ☐ 6. Based on your estimation from Activity 5, estimate the volume of your chosen mountain.

Extension

Create a 3-dimensional model of your mountain. Communicate with your peers if they are creating models as well. How will you ensure each mountain is to scale?

Want more Maths?

You can also go onto
Mangahigh or Studyladder

Ask your teacher if you
need your login details.

Individual Olympic Games 2 Week Project





Olympic Games Project

Today you will start a 2 week Olympic Games Project. Your teacher will allocate each student in your class a different participating country.

Once you have been given your country of study, this will be your country for the next 2 weeks, and all activities will be based on your allocated country.



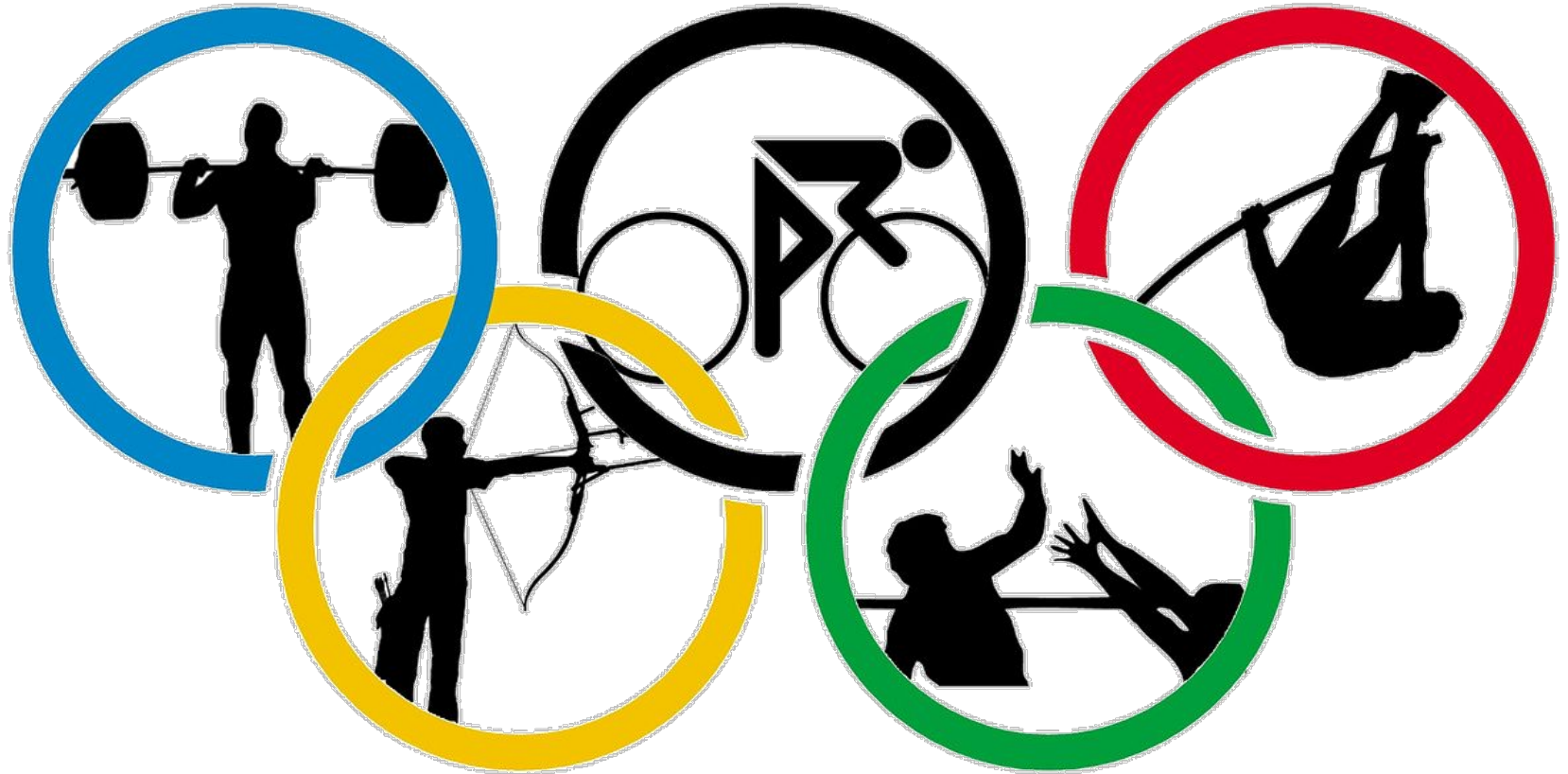
Stage 3 Expectations

Please Note: These tasks are the same as Stage 2, however, our expectation is that as a Stage 3 student, you will be providing more detailed and extended answers, justifying your reasons and giving examples.

Do your very best work -be creative, add links, colour and show your skills. Be like an Olympic Athlete and GO FOR GOLD!



Week 2 Activities





Click on the link to the [Jamboard](#) and add your name to your allocated country. I put my name on Australia to show you how to set it out



National Flag and its Origin

Research your Country's flag and post a picture of it here.

Write a brief summary of what your flag means in terms of it's colours, symbols and emblems.



Country Fact File

Click on the globe and search National Geographic for your country's fascinating facts



Research and find out the following about your country. Add slides and present your information in any way that you like.

- 5 exciting things to do/see in your allocated country - post pictures and descriptions
- Climate overview
- Currency
- Language
- Capital
- Population
- Past performance at Olympics - What sport is your country most famous for. Why?
- 3 interesting laws or cultural beliefs of your country that differ from Australia.

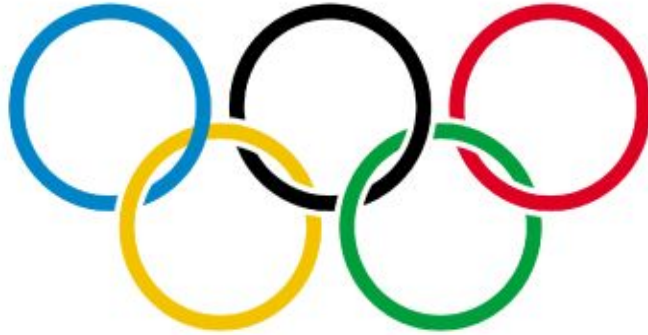
Your Country's Medal Tally

Here is where you will keep track of your country's medal tally

GOLD		SILVER		BRONZE	

Athlete Profile

"Athlete in the Spotlight" Biography



Select an athlete from your
allocated country in a sport of
your choice.

Answer the following questions about your athlete and present the information on additional slides in any way you like.



Pick 3 inspirational photos of your athlete and post them on this slide



What are your athletes greatest achievements?






Week 3 Activities

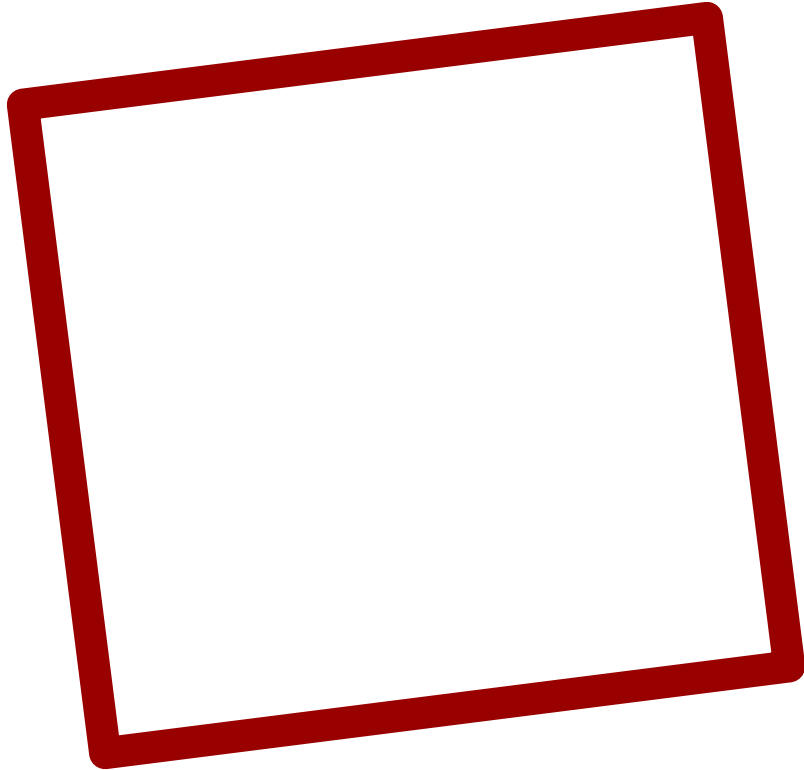


Your Athlete's Medal Tally

Here is where you will keep track of your personal athlete's medal tally.
Remember to keep adding medal's to your country tally as well.

GOLD 	SILVER 	BRONZE 

Find an inspirational quote from your athlete and write about why it inspires you.



Can you find a news report or newspaper clipping about your athlete?

Post any news articles you find on your athlete and highlight any sections that describe what sort of person your athlete is.

If my Athlete's story was made into a movie, I would call the movie.....

You might like to come up with a movie poster advertising your athlete's movie



In five words, describe your athlete.



A day in the life of.....

Describe an average day in the life of your athlete. You might like to set this out as a timetable.

5-6am Wake up/Breakfast
6-8am Strength/Cond.
8-8:30am Team Meeting
8:30-9am shower classes
9am-2pm Classes-Lunch
2-2:30pm Film Study
2:30-3:15pm Get Taped
3:30-6pm Team Practice
6-7pm Shower/Treatment
7-7:30pm Eat Dinner
7:30-9pm Academic Support/Study Hall
9:30-Midnight Finish Homework/Sleep

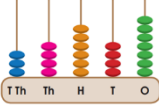
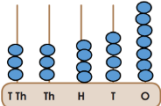
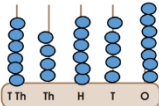
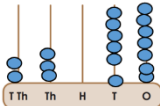
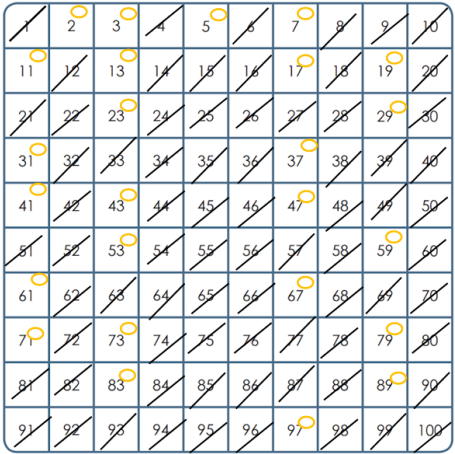
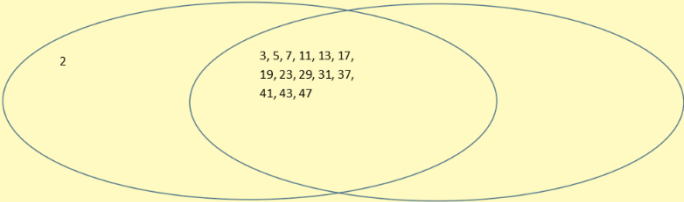
Learning From Home Maths Activities Answer sheet

Term 3 Week 2

Monday	Answers																												
Activity 1	<p>1. Look at the following measurements in kilometres on the left. Draw a line to match the equivalent distance represented in metres on the right.</p> <table><thead><tr><th>Kilometres</th><th>Metres</th></tr></thead><tbody><tr><td>10 km</td><td>120 000 m</td></tr><tr><td>6.2 km</td><td>8990 m</td></tr><tr><td>8.99 km</td><td>6200 m</td></tr><tr><td>23 km</td><td>50 450 m</td></tr><tr><td>120 km</td><td>10 000 m</td></tr><tr><td>50.45 km</td><td>23 000 m</td></tr></tbody></table> <p>2. Look at the following measurements in metres on the left. Draw a line to match the equivalent distance represented in kilometres on the right.</p> <table><thead><tr><th>Metres</th><th>Kilometres</th></tr></thead><tbody><tr><td>1000 m</td><td>5.24 km</td></tr><tr><td>3000 m</td><td>10.6 km</td></tr><tr><td>5240 m</td><td>12 km</td></tr><tr><td>10 600 m</td><td>3 km</td></tr><tr><td>12 000 m</td><td>1 km</td></tr><tr><td>25 350 m</td><td>25.35 km</td></tr></tbody></table>	Kilometres	Metres	10 km	120 000 m	6.2 km	8990 m	8.99 km	6200 m	23 km	50 450 m	120 km	10 000 m	50.45 km	23 000 m	Metres	Kilometres	1000 m	5.24 km	3000 m	10.6 km	5240 m	12 km	10 600 m	3 km	12 000 m	1 km	25 350 m	25.35 km
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12 000 m	1 km																												
25 350 m	25.35 km																												
Activity 2	<p>3. Find and match three measurements which are equivalent in the columns below. The first one has been done for you.</p> <table><tbody><tr><td>35 800 cm</td><td>3.58 km</td><td>0.358 km</td></tr><tr><td>3580 m</td><td>358 cm</td><td>3.58 m</td></tr><tr><td>32.85 km</td><td>358 m</td><td>358 000 cm</td></tr><tr><td>3850 cm</td><td>32 850 m</td><td>38.5 m</td></tr><tr><td>3580 mm</td><td>385 cm</td><td>3850 mm</td></tr><tr><td>3.85 m</td><td>38 500 mm</td><td>3 285 000 cm</td></tr></tbody></table>	35 800 cm	3.58 km	0.358 km	3580 m	358 cm	3.58 m	32.85 km	358 m	358 000 cm	3850 cm	32 850 m	38.5 m	3580 mm	385 cm	3850 mm	3.85 m	38 500 mm	3 285 000 cm										
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Learning From Home Maths Activities Answer sheet

Term 3 Week 2

Tuesday	Answers
Activity 1	<p>3. Look at the number below. Answer the questions by drawing beads and by writing the number as it changes each time.</p>  <p style="text-align: center;">34 647</p> <p>a. one thousand, two hundred less than 34 647</p>  <p style="text-align: center;">33 447</p> <p>b. thirty thousand and ten more than 34 647</p>  <p style="text-align: center;">64 657</p> <p>c. eleven thousand, six hundred less than 34 647</p>  <p style="text-align: center;">23 047</p> <p>4a. 700 4b. Thousands 4c. 0 tens 4d. 3 tens of thousands 5a. 1 224 122</p>
Activity 2	<p>We will now explore prime numbers up to 100.</p>  <p>3) 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97</p> <p>4) Answers will vary</p> <p>5. Write the prime numbers from 0 - 50 in the Venn diagram below by sorting them into the two categories.</p> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1; padding-right: 10px;"> <p>Tip:</p> <p>If a number is both a prime number and an odd number, write it in the middle where the ovals overlap.</p> </div> <div style="flex: 2;"> <div style="display: flex; justify-content: space-around; margin-bottom: 10px;"> Prime number Odd number </div>  </div> </div>

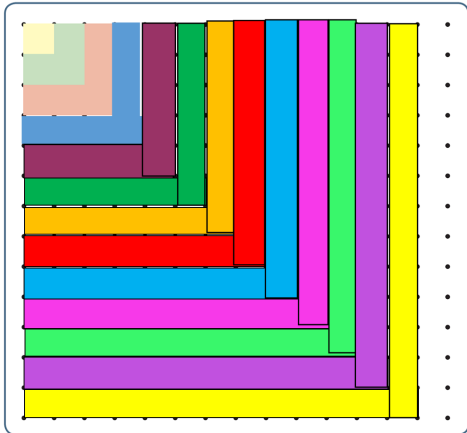
Learning From Home Maths Activities Answer sheet

Term 3 Week 2

Wednesday	Answers
Activity 1	<p>3.</p> <ul style="list-style-type: none">a) 15km 70mb) 7km 48mc) 21km 602md) 55km 437me) 3km 201mf) 8km 750mg) 9km 208mh) 4km 55mi) 36km 758m <p>4. a) $620\text{m} \times 2 = 1.2\text{km}$ per day $1.2\text{km} \times 7 \text{ days} = \mathbf{8.4\text{km}}$ b) Lily- $8 \times 400\text{m} = 3200\text{m} = 3.2\text{km}$ Adrian ran 5.55km Adrian ran the longest distance</p>
Activity 2	<p>5.</p> <ul style="list-style-type: none">a) 37.2kmb) 14.6kmc) 18.025kmd) 97.004kme) 75.009kmf) 43.1kmg) 153.042kmh) 374.001km <p>6.</p> <ul style="list-style-type: none">a) 61.07mb) 4.09mc) 9.1md) 23.06me) 14.4mf) 36.9m

Learning From Home Maths Activities Answer sheet

Term 3 Week 2

Thursday	Answers
Activity 1	<p>Answers and working out will vary</p> <p>a) $11\ 000 + 14\ 000 + 556 = 25\ 556$</p> <p>b) $13\ 000 + 12\ 000 + 162 = 25\ 162$</p> <p>c) $15\ 000 + 17\ 000 + 599 = 32\ 599$</p> <p>d) $130\ 000 + 120\ 000 + 555 = 250\ 555$</p> <p>e) $160\ 000 + 120\ 000 + 7700 + 97 = 287\ 797$</p> <p>f) $400\ 000 + 578\ 000 + 539 = 978\ 539$</p>
Activity 2	<p>1. Written answers will vary</p> <p>2. Hands on activity</p> <p>4.</p>  <p>5.</p> <p>$5 \times 5 = 1+3+5+7+9 = 25$</p> <p>$6 \times 6 = 1+3+5+7+9+11 = 36$</p> <p>$7 \times 7 = 1+3+5+7+9+11+13 = 49$</p> <p>$8 \times 8 = 1+3+5+7+9+11+13+15 = 64$</p> <p>$9 \times 9 = 1+3+5+7+9+11+13+15+17 = 81$</p> <p>$10 \times 10 = 1+3+5+7+9+11+13+15+17+19 = 100$</p>

Learning From Home Maths Activities Answer sheet

Term 3 Week 2

Friday	Answers
Activity 1	<p>5.</p> <ul style="list-style-type: none">a) 38.97kmb) 42.53kmc) Tedd) 6.03km or 6030me) 2500mf) Fred- $8\text{km}+10\text{km}+7\text{km}+6\text{km}+9\text{km}=40\text{km}$ Ted- $9\text{km}+8\text{km}+9\text{km}+8\text{km}+9\text{km}=43\text{km}$ (Written answers may vary)
Activity 2	<p>1.</p> <ul style="list-style-type: none">a) 15cm 7mmb) 7km 48mc) 21km 602md) 55m 37cme) 32m 1cmf) 87cm 5mmg) 9m 8cmh) 46km 304m <p>2.</p> <ul style="list-style-type: none">a) 1.27mb) 10.3mc) 5.85md) 2.05me) 0.91mf) 6.08m <p>3.</p> <ul style="list-style-type: none">a) 5cm 1mmb) 7cm 2mmc) 9cm 8mmd) 16cm 0mme) 38cm 5mmf) 0cm 2mmg) 59cm 1mm

Learning From Home Maths Activities Answer sheet

Term 3 Week 2

	h) 12cm 4mm
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