

*Home Learning Pack*  
*Stage 3*


*Week 1, Term 4, 2021*



**Barramurra**  
Public School

**HOME**  
**LEARNING**

# Matrix - Week 1

		<h2>Stage 3 Home Learning Grid - Term 4 Week 1</h2>				
		Activities can be completed digitally on the Seesaw app or as a hard copy and uploaded as an image to Seesaw				
	Monday	Tuesday	Wednesday	Thursday	Friday	
<b>Good Morning + Warmups</b>	Answer the question given by your teacher on Seesaw and say good morning! <b>Word of the Day</b>					
<b>Reading Log</b>	Complete the word of the day on Seesaw/Hard Copy and submit when complete Read for 20 minutes – PM e-collection, Reading Eggs or a book of your choice. Fill in your reading log, save as a draft and submit it on Friday.					
<b>Physical Activity</b>	Outdoor Physical Activity and Play You could post a picture or video of yourself getting out and getting active					
<b>Literacy</b>	<b>Grammar</b> Seesaw activity: Collective Nouns  <b>Writing</b> Seesaw activity: Reflection – school holidays and Term 4	<b>Grammar</b> Seesaw activity: Homophones: there/their/they're  <b>Writing</b> Seesaw activity: Creative writing	<b>Grammar</b> Seesaw activity: Adverbs  <b>Literacy</b> Seesaw activity: Informative - Australian sharks	<b>Grammar</b> Seesaw activity: Homophones: too/fo/two  <b>Science/STEM Literacy</b> Seesaw activity: Cleaning Up <u>The</u> Oceans STEM Challenge	<b>Maths</b> Seesaw activity: Patterns and Algebra Lesson 4. Log onto Prodigy and complete 30 minutes of activities	
<b>Mathematics</b>	<b>PUBLIC HOLIDAY</b>					
<b>Other Key Learning Areas</b>	<b>Geography:</b> Seesaw activity: Indigenous Peoples	<b>Personal Development and Health:</b> Virtual Sport – Click on any of the images on the Seesaw activity to explore different sports activities.	<b>Creative Arts:</b> Seesaw activity: The Great Wave Be inspired by this famous painting when creating your own seascape.	<b>Free Choice Afternoon</b> Complete any activity that interests you and upload a photo or video to Seesaw with an explanation on what you did and why you like to do this activity		
<b>Additional Optional Activities</b>	<b>PM e-collection/Reading Eggs (Online English)</b> Log on to PM e-collection or Reading Eggs and explore. <a href="#">PM e-collection online Reading Eggs</a>	<b>Mathematics</b> <a href="#">Youcubed</a> <a href="#">Touch Maths</a> OR Number of the day <a href="#">Maths Starters</a>	<b>Outdoor Physical Activity and Play</b> Post a picture or video of yourself being active. <b>DET - Learning from Home Resources</b> <a href="https://education.nsw.gov.au/teaching-and-learning/learning-from-home/learning-at-home">https://education.nsw.gov.au/teaching-and-learning/learning-from-home/learning-at-home</a>			



# Reading Log - Week 1

## Reading Log - Week 1

Find a relaxing space in your house where you can read. Read a book, magazine or a book from the PM e-collection in your chosen space. Add the book you have read, a rating and a picture of where you read to your reading log. Be creative!

	Monday	Tuesday	Wednesday	Thursday	Friday
Book Title and Author	Title: Author:	Title: Author:	Title: Author:	Title: Author:	Title: Author:
Rating - give what you read a rating out of 5, where 1 is not very good and 5 is great!	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
Where I read	Where: Photo:	Where: Photo:	Where: Photo:	Where: Photo:	Where: Photo:



Tuesday  
Activities

You are kind

## Collective Nouns

- Collective nouns are special rules we use to name a group of nouns (things).
- E.g. A **crew** of sailors.
- A **colony** of ants.
- Identify the correct collective noun for each noun below.

A \_\_\_\_\_ of fish.

- a) School
- b) Herd
- c) Class
- d) gang

A \_\_\_\_\_ of thieves.

- a) Pack
- b) Mob
- c) Fleet
- d) Gang

A \_\_\_\_\_ of elephants.

- a) Pride
- b) Herd
- c) School
- d) Banner

A \_\_\_\_\_ of friends.

- a) Group
- b) Herd
- c) Square
- d) Circle

## Tuesday - Grammar

A \_\_\_\_\_ of students.

- a) Mob
- b) Tide
- c) Class
- d) Pack

A \_\_\_\_\_ of kangaroos.

- a) Mob
- b) Murder
- c) Flock
- d) Banner

A \_\_\_\_\_ of ships.

- a) Flock
- b) Fleet
- c) Herd
- d) Class

A \_\_\_\_\_ of birds.

- a) Parliament
- b) Flock
- c) Pack
- d) Gang

A \_\_\_\_\_ of mountains

- a) Range
- b) Fleet
- c) Mob
- d) Crew

A \_\_\_\_\_ of crows.

- a) Herd
- b) Crew
- c) Colony
- d) Murder

## Tuesday - Writing

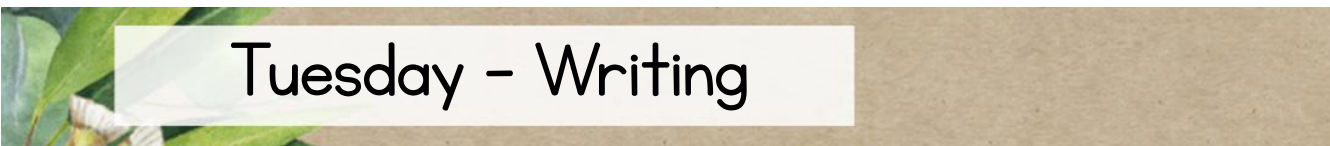
Today you are going to write a reflection. You will need to reflect on your school holidays and most importantly how you are feeling about this term and coming back to school

Answer the questions in the space provided - you need to write at least 3 sentences for each question



What was something you enjoyed doing during the school holidays? What made this activity enjoyable?



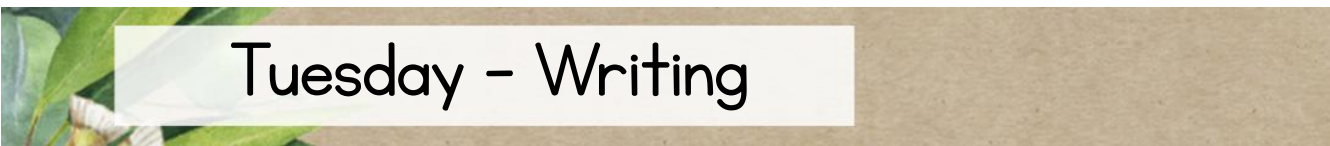


## Tuesday - Writing

What are you most looking forward to when you return to school? Why?

What are you worried or nervous about when you come back to school? Why?





## Tuesday - Writing

Which of your friends and/or teachers are you most looking forward to seeing when we come back to school?

What lessons, activities and games would you like to do when we are back in the classroom?

## Tuesday - Writing

What is 1 word that describes how you are feeling about coming back to school?



Were you successful today?

- You answered the questions on every slide
- You have checked your sentences make sense
- You have checked for spelling errors
- You have used correct punctuation including capital letters and full stops
- You have written at least 3 sentences on each slide

# Maths Week 1 Term 4

## Patterns & Algebra

~Equivalent Number Sentences~

### Learning Intention

- To be able to complete number sentences that involve more than one operation by calculating missing numbers.

### Success Criteria

- I can describe strategies for completing simple number sentences and justify my solutions.
- I can create my own balanced equations.

## Problem of the Day

In a class there are 20 students. They are wearing jerseys of 3 different colours – blue, green, and red.

The class was lined up in a way that the pattern of jerseys was:  
blue, blue, green, green, red, blue, blue, green, green, red...



- A. What colour jersey is the last child wearing?
- B. How many students are wearing a red jersey?

## Looking Back at Patterns

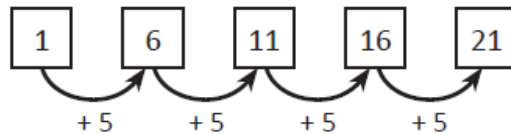
### Patterns and functions – recursive number patterns

Look around you, can you see a pattern? A pattern is an arrangement of shapes, numbers or objects formed according to a rule. Patterns are everywhere, you can find them in nature, art, music and even in dance!

In this topic, we are looking at number patterns. A number pattern is a sequence or list of numbers that is formed according to a rule.

Number patterns can use any of the four operations (+, −, ×, ÷) or even a combination.

In the example below, if we follow this instruction: “starting at 1 add 5 each time” we get this number pattern:



## Looking Back at Patterns

1 Write the next 3 numbers in each sequence by following the rule:

a Rule: add 6      5 → 11 → 17 →  →  →

b Rule: subtract 10      100 → 90 → 80 →  →  →

c Rule: multiply by 2      2 → 4 → 8 →  →  →

2 Figure out the missing numbers in each pattern and write the rule. Circle the ascending patterns.

a 14 21  35 42

Rule \_\_\_\_\_

b 17 37 57

Rule \_\_\_\_\_

c 75   30 15

Rule \_\_\_\_\_



# What does '=' mean?

- While most people see the = symbol to mean '*What is the answer*' it actually means '*equal to*' meaning what is on one side of the symbol is *equal to* the other side. Most of the time we just have a number, but sometimes we can also have an equal equation.

$$4 \times 5 = 20$$

$$4 \times 5 = 2 \times 10$$

- By making sure that each side is the same or equal to each other, we can say the equation is *balanced*.

## Balancing Equations

- We can balance equations by using information that we can see to make both sides of the = symbol the same.

- *E.g.*  $3 \times \underline{\quad} = 6 \times 5$

$$3 \times 10 = 6 \times 5$$

- Try these for yourself:

a)  $12 + \underline{\quad} = 15 + 5$

b)  $30 - \underline{\quad} = 40 - 20$

c)  $10 \times 3 = 6 \times \underline{\quad}$

d)  $12 \div \underline{\quad} = 15 \div 5$

# Balancing Equations

- We can balance equations in the same way using different operations. Remember both side of the equal to symbol have to be the same.

• E.g.  $3 \times \underline{\quad} = 35 - 5$

$3 \times 10 = 35 - 5$

- Try these for yourself:

a)  $12 + \underline{\quad} = 6 \times 3$

b)  $30 - \underline{\quad} = 40 \div 4$

c)  $10 \times 5 = 37 + \underline{\quad}$

d)  $60 \div \underline{\quad} = 3 \times 4$

- Sometimes there will be more than one operation on one or both sides that we use to balance the equation. These can be a little trickier and required you to work out one side and then sometimes work backwards from the information that we know.

• E.g.  $3 \times \underline{\quad} + 3 = 70 \div 2 - 2$

$3 \times 10 + 3 = 70 \div 2 - 2$  (Both sides equal to 33)

- Try these for yourself:

a)  $10 + \underline{\quad} - 5 = 3 \times 3 + 4$

b)  $30 - \underline{\quad} + 5 = 40 \div 4 \times 2$

c)  $10 \times 5 + 12 = 37 + \underline{\quad} \times 5$   
(x 11)

d)  $60 \div \underline{\quad} + 15 = (3 \times 4) + (3$

## Balancing Equations

- Now it is time for you to write your own. Please remember that both sides of the = symbol need to be the same. Please create Stage 3 level equations. Create 4 balanced equations.

a) \_\_\_\_\_ = \_\_\_\_\_

b) \_\_\_\_\_ = \_\_\_\_\_

c) \_\_\_\_\_ = \_\_\_\_\_

d) \_\_\_\_\_ = \_\_\_\_\_

## Reflection

- I can describe strategies for completing simple number sentences and justify my solutions.
- I can create my own balanced equation.
- I know that '=' means '*is equal to*'
- What is one new thing you learnt today in Mathematics?

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## It's Prodigy Time

Remember to log into your class Prodigy account and enjoy up to 30mins of Prodigy Time!



Tuesday - Geography

## Who are the Indigenous People of the World?





# Tuesday - Geography

What do you wonder about the lives of the people in the video?

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The people in the video are true indigenous peoples. What do you think makes them indigenous?

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Using words and phrases from the collage below, write your own definition for indigenous peoples.



# Tuesday - Geography

There are approximately 370 million indigenous peoples in the world. They live in all regions of the globe and represent more than 5000 different groups. Each indigenous culture is significant to the area they inhabit and has a unique culture. As indigenous peoples have survived in their territory for many thousands of years, modern cultures can learn from the ways they interact with the environment around them.

Match the indigenous peoples groups with a country or area they originate from.

Maori

Inuit

Aboriginal and Torres  
Strait Islander peoples

The Sami people

Orang Asli

Ainu

American Indian

Moken

The USA

Malaysia

Japan

Canada

Northern Europe

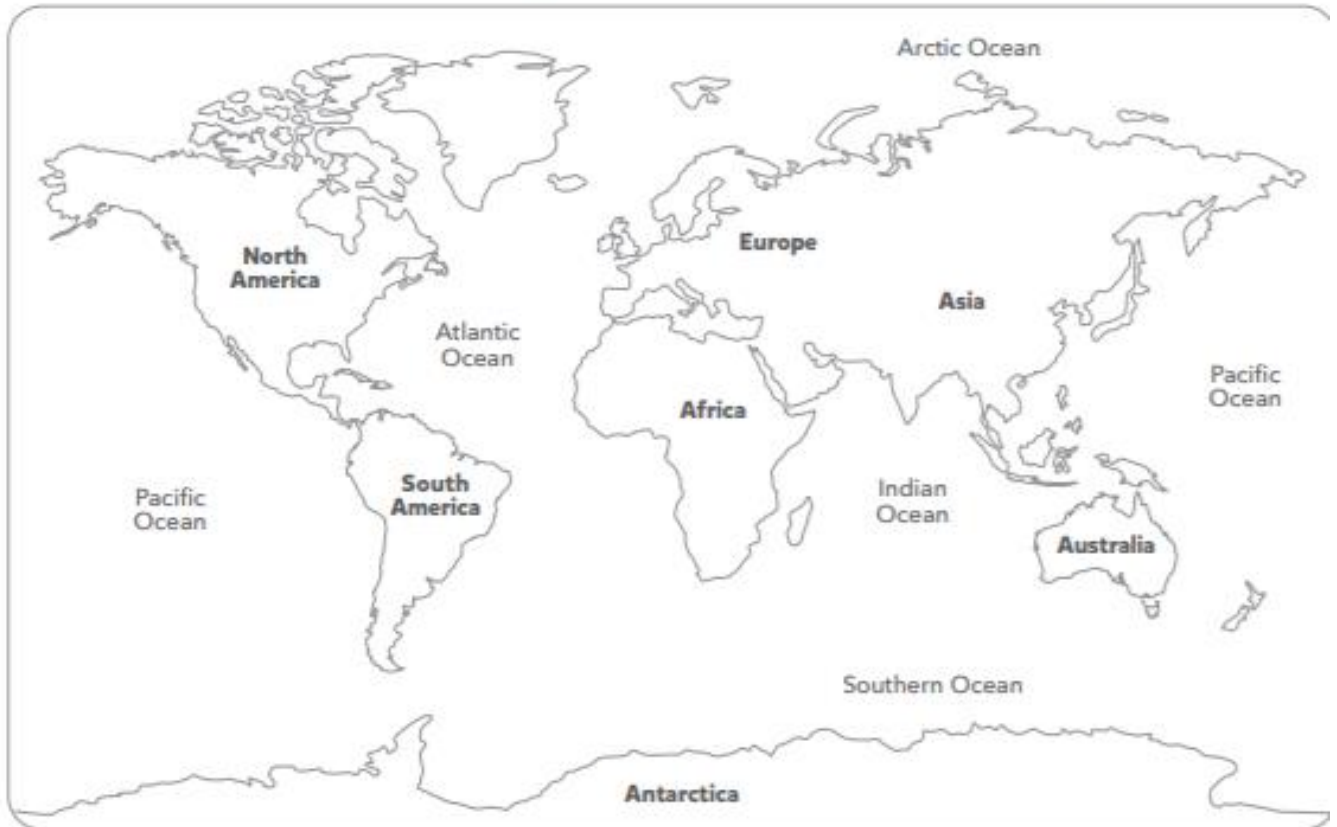
Australia

New Zealand

Thailand

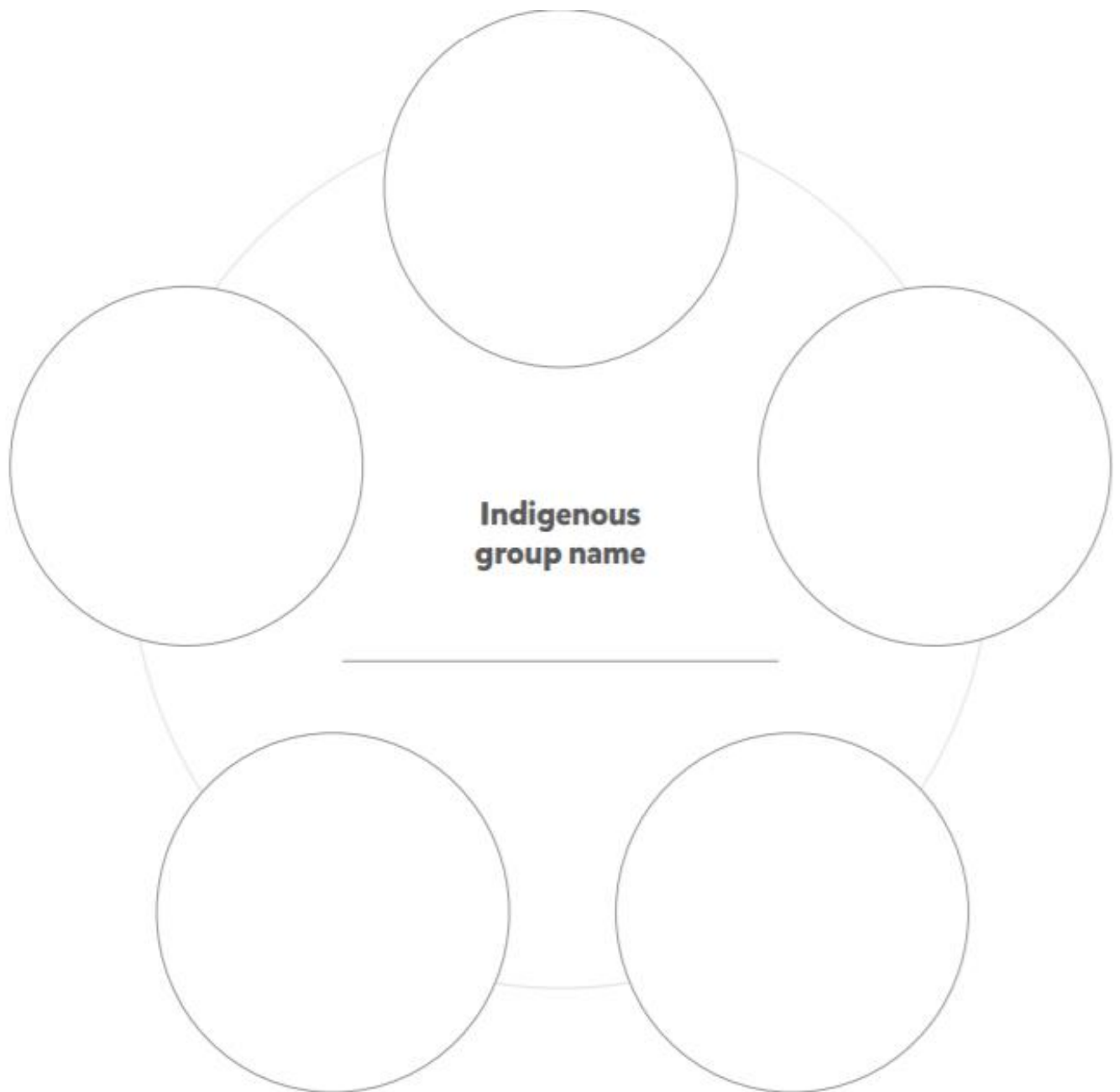
# Tuesday - Geography

Using the websites provided, conduct your own research into one of the indigenous groups from question five. Choose your group and then colour and label the place or places where they originate from and live on the world map below.



# Tuesday - Geography

Complete a mind map below with your information about one indigenous group. Include details such as customs, beliefs, history, social organisation, language, dress, music.







Wednesday

Activities

You are strong

## Homophones: They're/ there/ their

There = 1. not here

2. something exists

Their = possession (ownership)

They're = they are (contraction)

Choose the correct homonym to match the sentence.

**THEY'RE**

**CONTRACTION**

**They're** is a contraction.

**They're** = They are

**They're** + *Adjective*

- **They're** *tall*. = They are tall.

**They're** + *Verb-ing*

- **They're** *studying*.

**THEIR**

**POSSESSIVE ADJECTIVE**

Refers to something  
other people have or own.

**Their** + *Noun*

- **Their** *father* is tall.

- **Their** *books* are new.

- They won **their** *game*.

**THERE**

**ADVERB / PRONOUN**


That place (not here).  
Something exists.

**There** *opposite of* **Here**

- The keys are **there**. = not here

**There** + *is / are* = something exists

- **There** *is* a pen in my bag.



## Wednesday - Grammar

\_\_\_\_\_ are many fish under the sea.

Sharks can smell \_\_\_\_\_ prey from kilometres away.

Dolphins are very special. \_\_\_\_\_ one of the most intelligent animals on the planet.

Seals use \_\_\_\_\_ whiskers to sense prey.

Dolphins and whales are not fish, \_\_\_\_\_ mammals.

The Mariana Trench is the deepest chasm in the world; we don't know what's down \_\_\_\_\_.

Blue whales are the biggest animal to ever exist, but \_\_\_\_\_ gentle giants.

\_\_\_\_\_ were many people on the Titanic. Now \_\_\_\_\_ under the sea.

Baleen whales use \_\_\_\_\_ 'teeth' to trap krill.



## Wednesday - Writing

Today you are going to plan and write a story that relates to the picture.

Look at the image - what do you see?

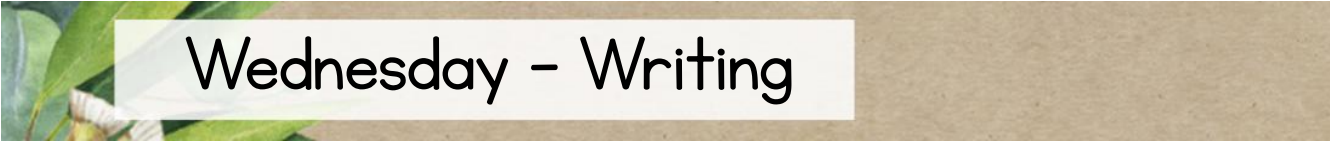


Spend 5-10 minutes planning your story using the questions on to help you

### Remember, your story needs:

- descriptive language and interesting vocabulary
- a setting and characters
- a complication and a resolution
- a range of punctuation
- similes, metaphors, alliteration and onomatopoeia
- paragraphs





# Wednesday - Writing

## Planning Questions:

What are the three people diving in from?

Why are they diving into the water?

Is it a sea, river or lake? What is the difference between each of these things?

What equipment are the people using? Why are they using it?

What other equipment might they have worn?

What might they see underwater?

Plan your story here - think about the questions, use a 10 x 2 to start you off








# Wednesday - Writing

Were you successful today?

- You planned your story using the picture as a prompt
  - You have checked your sentences make sense
  - You have checked for spelling errors
  - You have used correct punctuation including capital letters and full stops
  - You have written in paragraphs
  - You have used descriptive language
  - You have included a range of devices (similes, metaphors, alliteration etc)
  - Your story has a complication
  - Your story has a resolution
- 



Wednesday - Maths

# Maths Week 1 Term 4

## Patterns & Algebra

~Using the Inverse Relationship~

### Learning Intention

- To be able to identify and use inverse operations to assist with the solution of number sentences.

### Success Criteria

- I can understand the inverse relationship of the grouped operations.
- I can use my understanding of inverse operations to solve equations.

## Problem of the Day

Give today's problem a go, you need to think about patterns & algebra:

### Treasure to ship

There are **2 pirates** and **4 treasure chests** on an island. The pirates have 1 small boat to take the treasure to their ship. The boat can take 2 pirates or 1 pirate and 1 chest of treasure.

How many trips do the pirates have to take to get all the treasure and both pirates onto the ship?



## Inverse Operations

- Operation is a mathematical process involving addition, subtraction, multiplication, division, squaring, square roots, etc.
- All the given symbols (+, -, ×, ÷) in mathematics are known as operators.
- An inverse operation reverses the effect of the first operation.



Operations	Inverse operations
Addition	Subtraction
Subtraction	Addition
Multiplication	Division
Division	Multiplication

## Inverse Operations

- We can use our knowledge of the inverse relationship to solve mathematical problems and equations. This works similarly to our balanced equations. We use the information we have to create and complete the number sentence.



- E.g. 1  $125 \div 5 = \underline{\quad}$  becomes  $\underline{\quad} \times 5 = 125$   
 $125 \div 5 = \underline{25}$  becomes  $\underline{25} \times 5 = 125$



- E.g. 2  $100 - 47 = \underline{\quad}$  becomes  $\underline{\quad} + 47 = 100$   
 $100 - 47 = \underline{53}$  becomes  $\underline{53} + 47 = 100$

# Inverse Operations

- Try these multiplication/division inverse operations questions.

$$\begin{array}{l} \text{since } 12 \times 11 = 132 \\ \text{then } 132 \div 12 = \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{l} \text{since } 9 \times 7 = 63 \\ \text{then } 63 \div 9 = \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{l} \text{since } 11 \times 10 = 110 \\ \text{then } 110 \div 11 = \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{l} \text{since } 5 \times 10 = 50 \\ \text{then } 50 \div 5 = \boxed{\phantom{00}} \end{array}$$

- Try these addition/subtraction inverse operations questions.

$$\begin{array}{l} \text{since } 9 + 12 = 21 \\ \text{then } 21 - 9 = \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{l} \text{since } 19 + 6 = 25 \\ \text{then } 25 - 19 = \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{l} \text{since } 12 + 17 = 29 \\ \text{then } 29 - 12 = \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{l} \text{since } 9 + 6 = 15 \\ \text{then } 15 - 9 = \boxed{\phantom{00}} \end{array}$$

- Now let's use our knowledge of inverse relationships to assist us with the solution of unknown number sentences. Remember in each set the missing number remains the same.

a)  $60 \div 15 = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} \times 15 = 60$

b)  $720 \div 60 = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} \times 60 = 720$

c)  $16 \times 8 = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} \div 8 = 16$

d)  $45 \times 9 = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} \div 9 = 45$

- Have a go at writing your own now using the four operations and their inverse relationship. You can make them as challenging as you like, but you must complete them.

a)  $\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

b)  $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

c)  $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

d)  $\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$  becomes  $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

## Reflection

- I can understand the inverse relationship of the grouped operations.
- I can use my understanding of inverse operations to solve equations
- I know that '=' means '*is equal to*'
- What is one new thing you learnt today in Mathematics?

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## It's Prodigy Time

Remember to log into your class Prodigy account and enjoy up to 30mins of Prodigy Time!





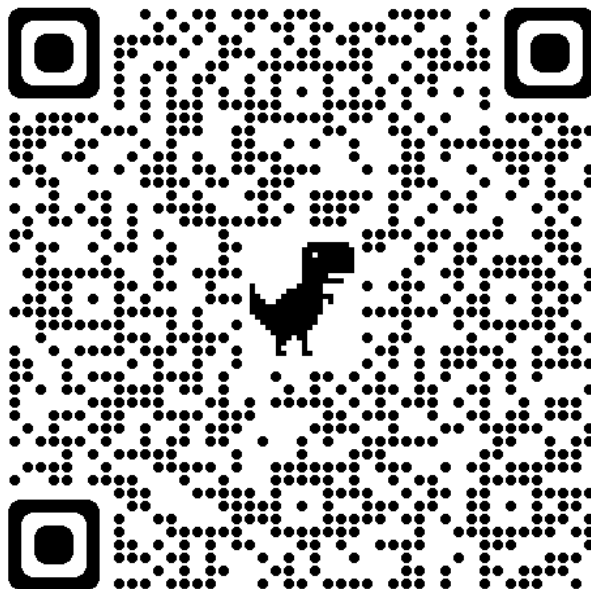
# Wednesday - PD/H

To access your sports activity for today, you will need to scan this QR Code or use the link below.

Link: [shorturl.at/glCT8](https://shorturl.at/glCT8)



**SCAN ME**





Thursday

Activities

You are unique

## Adverbs

Adverbs *describe* a verb (action words).

They make our writing more interesting.

E.g. The boy ran *quickly*. Quickly is the adverb, it is describing *how* the boy ran (not slowly, not painfully, but quickly).

Add your own adverbs to make these sentences more interesting. Be creative! You can't use the same adverb twice!


The fish swam \_\_\_\_\_ through the water.

The seagull dived \_\_\_\_\_ into the sea.

The shark stalked \_\_\_\_\_ through the seaweed.

The dolphin leapt \_\_\_\_\_ into the air.

The whale \_\_\_\_\_ sung a song.



## Thursday - Grammar

The clownfish \_\_\_\_\_ slept in the anemone.

The shark grinned \_\_\_\_\_ .

The seal barked \_\_\_\_\_ .

The crabs scuttled \_\_\_\_\_ into their holes.

The pelican \_\_\_\_\_ gulped the fish.



# Thursday - Literacy

## Informative Task - Australian Sharks

What do you know about the sharks swimming around in the Australian Waters?  
Love them or hate them Sharks are an important creature of the sea!

Today you are going to be doing some research about Australian sharks.

What 3 things do you already know about Australian sharks?

- 1.
- 2.
- 3.

Click on the link to watch the video. As you are watching, take 3 or more notes on paper about each of the different sharks.

<https://www.youtube.com/embed/H-I3HQwacVQ>

Notetaking: 3 facts on the Sydney Skate

- 1.
- 2.
- 3.



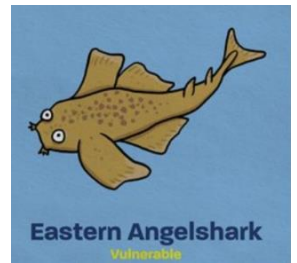
# Thursday - Literacy

3 facts on the Eastern Angelshark

1.

2.

3.



3 facts on the Whitfin Swellshark

1.

2.

3.



3 facts on the Greeneye Spurdog

1.

2.

3.



What was the main idea of the video? Why have the Australian Marine Conservation spent time creating this video?

# Thursday - Literacy

## Reflection




Look back at your 1st 3 facts about what you already knew about sharks. How has your thinking and understanding of sharks changed since the new learning?

I use to believe

I now know

## Were you successful today?

If yes, tick or circle the fish

-  Were you able to take notes about each shark?
-  Do you know 3 facts about the Australian sharks in the video?
-  Do you understand why the Australian Marine Conservation created the video?

Thursday - Maths

# Maths Week 1 Term 4

## Patterns & Algebra

~Completing Number Sentences~

### Learning Intention

- To be able to complete number sentences involving multiplication and division, including those involving simple fractions or decimals.

### Success Criteria

- I can understand how to use my knowledge of balanced equations and inverse operations to solve multiplication & division questions.
- I can check my solutions to number sentences by substituting the solution into the original question.

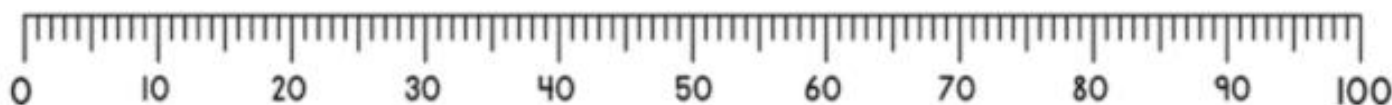
## Problem of the Day

Give today's problem a go, you need to think about patterns & algebra:

### Race to 100

Two ladybirds, Freda and Fred, are playing a game on a numberline. Fred can jump three numbers at a time and Freda can only jump two. Fred starts at 1 and Freda starts at 30.

If they both jump together, who gets to the 100 first and how long do they have to wait for the other one?



## Using Learnt Knowledge to Solve Problems

- Now that we have focused on how to balance equations and how to use the inverse operations, we can use these skills to solve problems more efficiently.

- E.g.  $7 \times \underline{\quad} = 7.7$

We can inverse this to be  $7.7 \div 7 = 1.1$  to find our missing number. Making the number sentence  $7 \times 1.1 = 7.7$

- We can use this theory with any missing number problem and is sometimes referred to as '*Working Backwards*'. In fact we are using our mathematical reasoning to work out our solutions.
- Try out these addition & subtraction questions using working backwards to solve the equation.

a)  $15 + \underline{\quad} = 21.4$

b)  $10 - \underline{\quad} = 3.2$

c)  $\underline{\quad} + 21 = 30.5$

d)  $\underline{\quad} - 6.5 = 3.5$

e)  $1105 + \underline{\quad} = 2380.3$

f)  $6572 - \underline{\quad} = 1460$

- Try out these multiplication & division questions using working backwards to solve the equation.

a)  $4 \times \underline{\quad} = 8.4$

b)  $120 \div \underline{\quad} = 24$

c)  $\underline{\quad} \times 2.1 = 18.9$

d)  $\underline{\quad} \div 6.5 = 10$

e)  $9 \times \underline{\quad} = 5589$

f)  $655 \div \underline{\quad} = 131$



## Using Learnt Knowledge to Solve Problems

- It is time to write your own. Try to include decimals and also remember to make the Stage 3 level questions. Make one for each operation.

a) \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

b) \_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_

c) \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

d) \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_

## Reflection

- I can understand how to use my knowledge of balanced equations and inverse operations to solve multiplication & division questions.
- I can check my solutions to number sentences by substituting the solution into the original question.
- I know that '=' means '*is equal to*'
- What is one new thing you learnt today in Mathematics?

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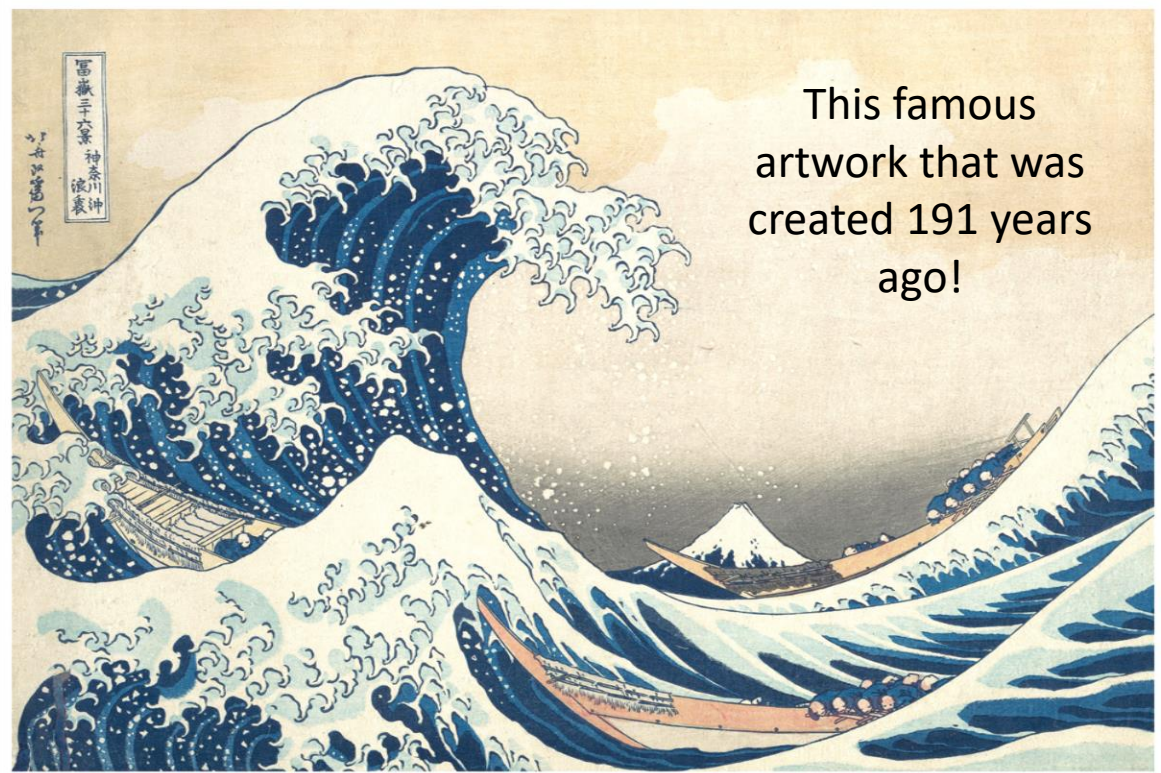
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### It's Prodigy Time

Remember to log into your class Prodigy account and enjoy up to 30mins of Prodigy Time!



# Thursday - Creative Arts



This famous artwork that was created 191 years ago!

## Under the Wave off Kanagawa

(also known as The Great Wave)

by Katsushika Hokusai, 1830-32



It is extremely well known and has inspired many other artists and products.



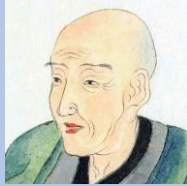


# Thursday - Creative Arts



Hokusai called himself Old Man Crazy To Paint and made his best work in his 70s. His most celebrated print series was the Thirty-Six Views of Mount Fuji, including The Great Wave. Fuji was thought to hold the secret of immortality. It appears in the 36 artworks in many different guises, sometimes right in the centre and other times as a background detail (like in The Great Wave).

<https://qrگو.page.link/GERSp>



<https://qrگو.page.link/yCS6Y>

Scan or follow the links to find out more about Hokusai and The Great Wave.



— THIRTY-SIX VIEWS OF MOUNT FUJI BY HOKUSAI —



# Thursday - Creative Arts

It is your turn!

Create an artwork inspired by The Great Wave.

Scan the QR code or follow the URL and watch the video as you create. Don't forget, you don't have to recreate the famous artwork exactly. Your artwork should just be INSPIRED by it. [Change the colours](#), change the **SIZE** and/or position of the objects, remove, change or add some boats, add in clouds, a pirate ship or a whale. The only limit is your imagination!

Use paint, watercolours, crayons, pencils or anything you have at home. If you are using pencil or crayon for the outlining instead of a black permanent marker, make sure you are pressing really hard to get bold lines.

<https://qr.go.page.link/wKsei>



Don't forget to share your amazing artworks on Seesaw!





Friday

Activities

You are capable



### Homophones: Two/two/too

There are three ways to spell 'to', and it is important to know when to use the right spelling, as each one has a different meaning.

**To** - expresses motion in a direction.

e.g. "he went to the shops." Or "Come to me."

**Too** - means 'also/as well'.

E.g. "Can I come, too?" Or "Billy got an ice-cream; can I have one too?"


- It also means 'excessive'.

E.g. "That tv is too loud." Or "There are too many people on this boat."

**Two** - the number 2.

E.g. "Can I have two lollies? One for me, one for my sister."

Choose the correct homophone for each sentence.



## Friday - Grammar

We went \_\_\_\_\_ the beach.

Ariel lived under the sea, but the wicked sea-witch lived there \_\_\_\_\_.

Nemo and Marlin are \_\_\_\_\_ famous clownfish.

The ocean is \_\_\_\_\_ salty to drink.

If a submarine goes \_\_\_\_\_ deep it is crushed by the ocean pressure.

I want \_\_\_\_\_ go \_\_\_\_\_ the Great Barrier Reef.

I saw a whale, and my brother saw it \_\_\_\_\_.

Have you been \_\_\_\_\_ the Sydney Aquarium?

There are \_\_\_\_\_ many fishing boats on the sea.

Whale calves drink milk, and dolphin calves do \_\_\_\_\_.

# S.T.E.M. Challenge

## Term 4 Week 1

### Cleaning Up The Oceans



## Pollution in the Oceans

- Pollution is the introduction of harmful materials into the environment. Water pollution is when waste, chemicals, or other particles cause a body of water (e.g. oceans, rivers, lakes, wetlands, etc) to become harmful to the fish, animals, reefs, and plants that need the water to survive. Water pollution can also have damaging and disruptive impacts on the natural water cycle.
- A lot of water pollution comes from human activity. Some human causes include that which is washed into stormwater drains that lead to rivers and the sea. In the oceans, a lot of pollution comes from things that are thrown overboard from boats and by rubbish that washes into the ocean from the land and from rivers. Plastics, fishing line, fishing nets, and other wastes can affect the creatures living in our oceans. Plastic pollution is considered in the top three dangers to a continuing healthy ocean.



# Your Challenge - Gathering Inspiration

- Your task is to help others understand the effects of pollution and waste in our oceans and design a way to help make the oceans healthy again.

## Some Inspiration

- Meet Molly Steer, an 11 year old Australian student on a mission to encourage every school in Australia to stop using single-use plastic straws in their school tuckshops and canteens. Have a look at these four links to see Molly's work.



**Straws No More**  
<https://www.strawnomore.org>



**BTN Story - Straws No More**  
<https://youtu.be/ozaaNbNT1Is>

**TEDx JCUCairns**  
x = independently organized TED event

**TEDx - Molly Steer**  
<https://youtu.be/Rr5Py1r9xjw>



**Plastic Oceans International**  
<https://youtu.be/otLUQR7YeCM>

## Some More Inspiration



- Plastic Oceans International - <https://plasticoceans.org/>
- 9 Ways to Reduce Plastic Pollution - <https://youtu.be/Hu-fILevV40>



- Seabin Project - <https://seabinproject.com/about-us/>
- In-water Automated Marina Rubbish Collector - <https://youtu.be/tiy7WQYQyhY>

**THE OCEAN  
CLEANUP**

- Boyant Slat The Ocean Cleanup - <https://theoceancleanup.com/>
- BTN Story - Ocean Rubbish Clean-up - 18/09/2018  
<https://www.abc.net.au/btn/classroom/ocean-rubbish-clean-up/10448624>

# Your Challenge - Ideation

- Now that you have researched some ways people are attempting to make the oceans a healthier place, you need to develop your own approach to help others understand the effects of pollution and waste in our oceans.
- First Step: Think about the many possible solutions and ideas you might have to the pollution problems in our oceans. Write all your ideas in the box below.

Your ideas

# Your Challenge - Organising

- Second Step: Have a look at your ideas and pick the most creative idea.
  - What materials, tools, equipment, people or ingredients will you need to make your solution a reality. List everything you need in the box below.

Your needs to make your idea a reality



# Your Challenge - Prototyping

- Third Step: In the box below create your first prototype for your plan. If it is video, song or other multimedia presentation uploaded it here. If it is a physical item make a model, take photos and upload them. If it is a poster or infographic you can design it in the box.

Your Prototype

# Your Challenge - Testing

- Fourth Step: Share your idea with someone else. This may be a family member, friend, class mate, etc. What are their thoughts about your idea? Do they think you might need to change anything? Were they empowered to do something about the oceans? Write down all the points that were discussed.

## Your Sharing Points

Did they think you needed to change anything? If so, what was it and will you change it?

## Reflection

- What did you enjoy the most about this challenge? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- What challenges did you have and how did you overcome them? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- What would you do differently next time? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Patterns & Algebra

~Creating Number Sentences~

## Learning Intention

- To be able to write number sentences to match word problems that require finding a missing number.

## Success Criteria

- I can understand what information I need from a word problem to create and follow a number sentence.

## Problem of the Day

Give today's problem a go, you need to think about patterns & algebra:

### Toothpicks

Ripeka and Jan were sitting around playing with toothpicks when Ripeka started to make a **pattern of squares**.



How many toothpicks would she need to make a pattern like this that had 9 squares?

## Creating Equations from Word Problems

Now that you can solve equations with one unknown number using the balanced equation strategy and your knowledge of inverse operations, you will be able to solve word problems with ease! All you need to do is follow the word problems step by step. Check out this example:

A large group of friends signed up to participate in a fun run. 56 of them got food poisoning the day before so had to pull out. How many people signed up if a total of 84 people ran the race?

$$\star - 56 = 84$$

$$\star - 56 = 84 + 56$$

$$\star = 140$$

To get the star on its own we use the inverse operation and do the same to the other side.



REMEMBER

## Creating Equations from Word Problems

- Solve the following word problems using inverse operations. Start by choosing the matching equation from the box below.

$$\$50 + \triangle = \$130$$

$$\triangle - 70 \text{ m} = 38 \text{ m}$$

$$\$83 + \$100 + \triangle = \$300$$

- Jack had a piece of rope and cut off 70 metres. He was left with 38 metres. How long was the rope?
- Tom found \$50 on the bus on Monday and was given birthday money by his Gran on Wednesday. How much did his Gran give him if he ended up with \$130?
- Matilda saved \$83 towards a trip to the snow and her parents gave her \$100. How much more money does she need if the trip costs \$300?

- Lets now have a look at this more extended and multiple step example:

Kate saved each week for 5 weeks and then spent \$25.

How much was she saving each week if she had \$100 left at the end of 5 weeks and after spending \$25?

**Step 1** Set up the equation. The triangle stands for the amount Kate was saving each week.

$$\triangle \times 5 - 25 = \$100$$

**Step 2** Cancel out the  $- 25$  with the inverse operation:  $+ 25$

$$\triangle \times 5 = 100 + 25$$

$$\triangle \times 5 = 125$$

**Step 3** Cancel out  $\times 5$  with the inverse operation:  $\div 5$

$$\triangle = 125 \div 5$$

$$\triangle = \$25$$

Kate was saving \$25 each week.



Make the unknown number stand on its own while keeping the equation balanced. We do this with inverse operations.

**REMEMBER**

## Creating Equations from Word Problems

- Try these extended and multiple step questions:

a For my school fete I baked 3 batches of cookies, realised that wasn't enough and so I bought a dozen more. How many were in one batch if I had 84 cookies altogether?

$$3 \times \blacktriangle + 12 = 84$$

$$3 \times \blacktriangle = 84 - \square$$

$$\blacktriangle = \square \div \square$$

$$\blacktriangle = \square$$

There were  cookies in each batch.

b 8 same sized Year 5 classes assembled in the playground for photo day. There were 11 students absent. How many students are there in each class if there were 213 there on the day?

$$\square \times \blacktriangle - 11 = 213$$

$$\square \times \blacktriangle = 213 + 11$$

$$\blacktriangle = \square \div \square$$

$$\blacktriangle = \square$$

There were  students in each class.

- Let's now have a look at this *Guess the number* example:

Lim thinks of a number, adds 3 to it and then multiplies it by 4.

The answer is 20. What is Lim's number?

To answer this, first we need to write an equation with the unknown:

**Step 1** Set up the equation. The heart shape stands for the unknown number.

$$\heartsuit + 3 \times 4 = 20$$

**Step 2** Cancel out the  $\times 4$  with the inverse operation:  $\div 4$

$$\heartsuit + 3 = 20 \div 4$$

**Step 3** Cancel out the  $+ 3$  with the inverse operation:  $- 3$

$$\heartsuit + 3 = 5$$

$$\heartsuit = 5 - 3$$

$$\heartsuit = 2$$



## Guess the Number Problems

- Try these *Guess the number* questions:

a Jamila says: "I'm thinking of a number. I divide it by 7 and then add 6. My answer is 13."

$$\heartsuit \div 7 + 6 = 13$$

$$\heartsuit \div 7 = 13 - 6$$

$$\heartsuit \div 7 = \square$$

$$\heartsuit = \square \times \square$$

$$\heartsuit = \square$$

b Pablo says: "I'm thinking of a number. I multiply it by 6 and then add 7. My answer is 55."

$$\heartsuit \times 6 + 7 = 55$$

$$\heartsuit \times 6 = 55 - 7$$

$$\heartsuit \times 6 = \square$$

$$\heartsuit = \square \div \square$$

$$\heartsuit = \square$$

c Mikaela says: "I'm thinking of a number. I multiply it by 4 then subtract 12. My answer is 20."

$$\heartsuit \square \square \square \square = \square$$

$$\heartsuit \square \square = \square \square \square$$

$$\heartsuit \square \square = \square$$

$$\heartsuit = \square \square \square$$

$$\heartsuit = \square$$

- Try writing your *Guess the number* question & solving it. Use diagrams & symbols to help you display the steps of your problem.

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## Other Guess the Number

- Let's have some fun with these mental equations. Follow the instructions each time for 3 different numbers. There are 2 different sets to try.

Think of a number			
↓	↓	↓	↓
Double it			
↓	↓	↓	↓
Add 40			
↓	↓	↓	↓
Divide by 2			
↓	↓	↓	↓
Subtract 20			

What happens each time? \_\_\_\_\_

Think of a number			
↓	↓	↓	↓
Add 4			
↓	↓	↓	↓
Double it			
↓	↓	↓	↓
Subtract 8			
↓	↓	↓	↓
Halve it			

What happens each time? \_\_\_\_\_

# Other Guess the Number

- Let's now have a look at a similar one, this time the equations are also written out.

Try this number puzzle by testing it out in the blank boxes.

Think of a number	*	
↓	↓	↓
Add 2	* + 2	
↓	↓	↓
Add first number	* + * + 2	
↓	↓	↓
Divide by 2	* + 1	
↓	↓	↓
Subtract 1	*	

What do you notice? \_\_\_\_\_

**It's Prodigy Time**

When you finish log into your class Prodigy account and enjoy up to 30mins of Prodigy Time!



www.ProdigyGame.com

This number puzzle uses the same trick. This time complete the column of boxes with the number sentences using symbols. Then test it in the last column.

Think of a number	*	
↓	↓	↓
Double it		
↓	↓	↓
Add 6		
↓	↓	↓
Divide by 2		
↓	↓	↓
Subtract 3		

Why does this work for any number?

## Reflection

- I can understand what information I need from a word problem to create and follow a number sentence.
- What is one new thing you learnt today in Mathematics?

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# Optional Activities

## Non-screen activities you can do at home

Pobble

25  
ideas!

What can you do when there's no school and you're stuck at home? Here are 25 fun ideas to choose from.



**1** How many different words can you make from the letters in this sentence, below? Grab a pencil and paper and write a list!

'Learning from home is fun'

**2** Thank a community hero. Think of someone that helps you in some way and write a short letter to thank them.

Thanks!

**3** Get building! You could build a Lego model, a tower of playing cards or something else!



**4** Can you create your own secret code? You could use letters, numbers, pictures or something else! Can you get someone else to try and crack it?

**5** Start a nature diary. Look out of the window each day and keep note of what you see. Birds, flowers, changes in the weather, what else?

**6** Hold a photo session. Use a camera or a mobile phone to take some snaps. What will you photograph? Your pets or toys perhaps?

**7** Build a reading den. Find somewhere cosy, snuggle up and read your favourite book!



**8** Use an old sock to create a puppet. Can you put on a puppet show for someone?



**9** Make a list of all the electrical items in each room of your home. Can you come up with any ideas to use less electricity?

**10** Design and make a homemade board game and play it with your family.



**11** Do something kind for someone. Can you pay them a compliment, make them something or help them with a task?



**12** Can you create a story bag? Find a bag and collect items to go in it that relate to a well known story. If you can't find an item, you could draw a picture to include.

**13** List making! Write a list of things that make you happy, things you're grateful for or things you are good at.



**14** Design and make an obstacle course at home or in the garden. How fast can you complete it?



**15** Can you invent something new? Perhaps a gadget or something to help people? Draw a picture or write a description.



**16** Keep moving! Make up a dance routine to your favourite song.



**17** Write a play script. Can you act it out to other people?



**18** Read out loud to someone. Remember to read with expression.



**19** Write a song or rap about your favourite subject.



**20** Get sketching! Find a photograph or picture of a person, place or object and sketch it.



**21** Junk modelling! Collect and recycle materials such as yoghurt pots, toilet rolls and boxes and see what you can create with them.

**22** Draw a map of your local area and highlight interesting landmarks.



**23** Write a postcard to your teacher. Can you tell them what you like most about their class?

**24** Draw a view. Look out of your window and draw what you see.



**25** Get reading! What would you most like to learn about? Can you find out more about it in books? Can you find a new hobby?