

# Learning From Home

## Take-home Pack



Term 4 | Weeks 1-3

2021



<b>Week 1</b>	<b>Monday 4<sup>th</sup> October</b>	<b>Tuesday 5<sup>th</sup> October</b>	<b>Wednesday 6<sup>th</sup> October</b>	<b>Thursday 7<sup>th</sup> October</b>	<b>Friday 8<sup>th</sup> October</b>	
<b>Morning Muster</b>	<b>9:00am: Attendance Form 9:15am: Teams Meeting</b> ➤ Daily assignment info/Q&A, teacher messages & check-in					
<b>ENGLISH</b>	<b>PUBLIC HOLIDAY</b>	<b>Imaginative Texts: Character</b>	<b>Grammar with Mr H. Reading Eggspress</b> 2 Lessons & Assignments	<b>Imaginative Texts: Character</b>		
<b>MATHS</b>		<b>Whole Numbers</b>	<b>Mathletics</b> 5 assigned activities <b>Investigation</b>	<b>Whole Numbers</b>		
<b>OTHER</b>		<b>PDHPE &amp; Creative Arts</b> Matrix of activities	<b>Science</b> Physical World: Forces	<b>WEDNESDAY: 12:00pm – 3:00pm Teachers Offline</b>		
<b>Week 2</b>		<b>Monday 11<sup>th</sup> October</b>	<b>Tuesday 12<sup>th</sup> October</b>	<b>Wednesday 13<sup>th</sup> October</b>	<b>Thursday 14<sup>th</sup> October</b>	<b>Friday 15<sup>th</sup> October</b>
<b>Morning Muster</b>	<b>9:00am: Attendance Form 9:15am: Teams Meeting</b> ➤ Daily assignment info/Q&A, teacher messages & check-in.					
<b>ENGLISH</b>	<b>Imaginative Texts: Character</b>		<b>Grammar with Mr H. Reading Eggspress</b> 2 Lessons & Assignments	<b>Imaginative Texts: Character</b>		
<b>MATHS</b>	<b>Area</b>		<b>Mathletics</b> 5 assigned activities <b>Investigation</b>	<b>Area</b>		
<b>OTHER</b>	<b>PDHPE &amp; Creative Arts</b> Matrix of activities	<b>Science</b> Physical World: Forces	<b>WEDNESDAY: 12:00pm-3:00pm Teachers Offline 12pm Years 3-6 Assembly via Zoom</b>			



<b>Week 3</b>	<b>Monday 18<sup>th</sup> October</b>	<b>Tuesday 19<sup>th</sup> October</b>	<b>Wednesday 20<sup>th</sup> October</b>	<b>Thursday 21<sup>st</sup> October</b>	<b>Friday 22<sup>nd</sup> October</b>
<b>Morning Muster</b>	9:00am: <b>Attendance Form</b>		9:15am: <b>Teams Meeting</b> ➤ Daily assignment info/Q&A, teacher messages & check-in.		
<b>ENGLISH</b>	<b>Imaginative Texts: Character</b>		<b>Grammar with Mr H. Reading Eggspress 2 Lessons &amp; Assignments</b>	<b>Imaginative Texts: Character</b>	
<b>MATHS</b>	<b>Perimeter</b>		<b>Mathletics 5 assigned activities Investigation</b>	<b>Perimeter</b>	
<b>OTHER</b>	<b>PDHPE &amp; Creative Arts</b> Matrix of activities	<b>Science</b> Physical World: Forces	<b>WEDNESDAY: 12:00pm-3:00pm Teachers Offline</b>		

**Have internet access and still looking for more?**

[Learning from Home Hub](#)  
[Everyday Maths Hub](#)  
[Wellbeing](#)

[ePlatform](#)  
[Storybox Library](#)  
[NRICH MATHS](#)

**\*\* Tasks written in GREEN are to be given priority over other tasks \*\***

# WEEK 1

## English



# OVERVIEW &

# RESOURCES

## English learning sequence – CHARACTER

### Learning sequence description

Character is an important concept in narrative as a driver of the action, a function in the plot, a way of engaging or positioning a reader or as a way of representing its thematic concerns. The way character is read is an indication of particular approaches to texts, be it through personal engagement or critical response. Through the objectives of reading and viewing, writing and responding, speaking and listening, this sequence of lessons aims to introduce the concept of character and explore how conventions work in a range of texts to invite creative writing and responding.

*The School Magazine has provided digital and non-digital texts for students to explore. This is licenced under CreativeCommons, Non-commercial and NoDerivatives.*

### Syllabus outcomes and content

**EN3-3A** - uses an integrated range of skills, strategies and knowledge to read, view and comprehend a wide range of texts in different media and technologies

- understand, interpret and experiment with sound devices and imagery, including simile, metaphor and personification, in narratives, shape poetry, songs, anthems and odes
- analyse and evaluate the way that inference is used in a text to build understanding in imaginative, informative and persuasive texts

**EN3-5B** - discusses how language is used to achieve a widening range of purposes for a widening range of audiences and contexts

- identify the ways in which language use in imaginative texts, including use of figurative language, character development, events and setting, creates interest for the reader or viewer

**EN3-7C** - Thinks imaginatively, creatively, interpretively and critically about information and ideas and identifies connections between texts when responding to and composing texts

- interpret events, situations and characters in texts
- create literary texts that adapt or combine aspects of texts students have experienced in innovative ways
- experiment with others' imaginative texts by changing aspects such as place, characters, rhythm, mood, sound effects and dialogue

[English K-10 Syllabus](#) © 2012 NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales.

## Other aspects of English

### Independent Reading

It is expected that all students engage in independent reading daily. This should include a text that is of an appropriate instructional level. This may include picture books, comics, newspapers, levelled texts, novels. Re-reading a familiar text is encouraged.

### Spelling

This two-week sequence of learning does not include spelling however it will provide students with opportunities to practice and refine their skills and knowledge of, spelling.

### Handwriting and word processing skills

This two-week learning sequence provides opportunities to practise handwriting and keyboarding skills but does not include explicit instruction or assessment. These opportunities allow students to increase speed, accuracy and fluency to compose and edit texts. Students will become increasingly confident, proficient and flexible with keyboarding.

## Recording your learning

Use the digital version of the workbook included in the Teams assignment otherwise the student workbook can be printed to provide an offline version. If you have collected/received the take-home pack then use that. The digital version is preferred.

Schedule of Lessons				
Monday	Tuesday	Wednesday	Thursday	Friday
<b>WEEK 1</b>				
Public Holiday	Lesson 1	Grammar with Mr H	Lesson 2	Lesson 3
<b>WEEK 2</b>				
Lesson 4	Lesson 4 feedback edits	Grammar with Mr H	Lesson 5	Lesson 6
<b>WEEK 3</b>				
Lesson 7	Lesson 8	Grammar with Mr H	Lesson 9	Lesson 10

## RESOURCES

### Transcript of Character

**Erin** – Hey Mr. Cranna!

**Mahdi** – What are you doing?

**Mr Cranna** – Drawing a new character for my comic. [Mr Cranna turns around notepad to reveal image of a volcano]

**Erin** – Oh, let's see.

**Mahdi** – Your new character's a volcano? I thought characters have to be human.

**Mr Cranna** – Actually, the concept of character can be a fictional person or idea. So long as you give your character an identity. That means a personality, wants, emotions, and feelings. So a fictional character could be a volcano, or, a disgruntled lobster! [draws lobster on page]

[Erin turns into a lobster with pincer hands and lobster head]

**Erin** – Ugh, what's with these pincers? They're not good for anything!

**Mr Cranna** – Characters are important because what happens to them and what they do drive the action in a narrative. They have to want something, or need to do something, and then set about trying to achieve, or obtain, that goal.

**Mahdi** – I still don't get how a character doesn't have to be human. Aren't you supposed to be able to connect with a character? I mean, I definitely don't connect with a shellfish.

**Mr Cranna** – Well, what if you knew she had a goal? She's been training for months to become the world's greatest hairdresser.

**Mahdi** – You wanna be a hairdresser too?

**Mr Cranna** – But she's finding it tough to get clients because no one wants to get the hair cut by a crustacean.

**Erin** – Why does nobody wanna be friends with me?

**Mahdi** – I find it hard to make friends sometimes too. Hang on! I've got an idea. Why don't we become friends and open a hairdressing salon together?

**Erin** – Yay!

**Mr Cranna** – Still think you can't connect with a crustacean character?

**Mahdi** – Wow, how did that happen? To begin with, I didn't care about the lobster, but now she's my bestie.

**Mr Cranna** – You were able to connect with the lobster when I gave her some characteristics. I told you what her goal was, and what the problem she was facing. Goals and flaws are important, because they allow us to connect with a character on an emotional level. Hmm, it's got me thinking. I need to give my volcano a want, and a motivation.

**Erin** – Yeah, so we can connect with it.

**Mr Cranna** – I know, maybe the volcano is kind, and wants animals to live on it. But it gets angry when the animals keep littering on the volcano. So it gets mad, and boom! Blows it's top.

End of transcript





## 'The Most Boring Street in the World'



Story by Bill Nagelkerke , illustrated by Tohy Riddle

He looked one way. Then he looked the other. 'This has to be the most boring street in the world,' he muttered to himself.

A voice at his shoulder surprised him by saying: 'No, it isn't!'

The voice belonged to a girl. 'I'm Jade,' she said. 'I live two houses down. I saw you when you moved in last weekend. What you said isn't true, you know. We live on a very interesting street.'

'Yeah, right!' said Austin. 'It's nowhere near a mall. It's not on a bus route. There's no skate park. And everything's old. What's there to do? A great big fat nothing. BORING!'

Jade looked at him. 'Come with me to the end of our street,' she said. 'I might be able to change your mind.'

'Not likely,' said Austin.

But he had nothing better to do, so he followed Jade anyway. Two houses down he saw a parked car with a trailer attached. Big letters on the back of the trailer said: DIG THIS! GARDENING SERVICES.

'My mum looks after other people's gardens,' Jade explained.

The end of their street joined up with more streets.

'Well?' said Austin. 'What's there to see?'

‘Look up there,’ Jade told him.

Austin looked up. The sky was blue. Clouds drifted overhead. Everything was exactly the same as it had been all during the long summer holidays.

‘No, not up as high as that,’ said Jade. ‘There.’

‘There’ was a lamppost with signs of the street names attached.

‘I don’t get it,’ said Austin.

‘Our street is called Meteor Street,’ Jade said.

‘So?’

‘Some people say The Meteor was the name of a ship,’ Jade continued. ‘But not just any old ship.’

She paused. Austin took the bait.

‘What sort of ship was it then?’

Jade lowered her voice so Austin had to bend forward to hear her reply.

‘Some people say it was a pirate ship.’

‘Oh,’ said Austin, showing a glimmer of interest. ‘For real?’

‘That’s what some people say. Now, what’s the name of that street?’

Austin read the sign. ‘Skeleton Bay Road.’

Jade nodded. ‘Exactly. That road goes all the way to Skeleton Bay. Some people say The Meteor was scuttled in the bay.’

‘Scuttled?’ asked Austin.

‘Sunk,’ said Jade. ‘By its pirate crew. Some people say the crew mutinied because their captain went back on his word to share out the stolen treasure.’

‘Treasure?’ said Austin.

‘Gold coins, precious stones, necklaces, rings. All sorts.’

‘And it’s still there?’ said Austin, excitement creeping into his voice. ‘In Skeleton Bay?’

Jade shook her head. ‘Way better than that,’ she said. ‘Only the old bones of the ship are still in the bay. Whenever there’s a storm at sea, some people say you can hear the timbers of The Meteor rattling and groaning, like the voices of ghosts. You see, the story goes that when the crew came to demand their share of the treasure, they discovered the

captain had escaped ashore in the longboat, taking the treasure with him. They scuttled his ship in revenge.'

'But what happened to the treasure?' asked Austin. 'Did the captain get away with it, or did his crew track him down?'

Jade pointed to another street sign. 'What does that one say?'

'Sunset Way,' Austin read.

'And what colour is a sunset?' asked Jade.

'Gold,' said Austin, thinking about it. 'Or sometimes red. Sometimes orange as well. Lots of colours.'

'The colours of treasure,' said Jade. 'Some people say that the captain buried it along Sunset Way.'

'But only old people live on that street,' Austin said. 'I've seen them.'

'They do now,' Jade agreed. 'But back in those days there was no street there at all. The captain meant to come back for the treasure, but ...'

At this point, Jade paused dramatically.

'His crew did track him down,' Austin finished.

Jade didn't say a word. She didn't need to.

'Did anyone ever find the treasure?' Austin asked.

'Don't talk so loudly,' Jade said. 'We don't want the whole world to hear. Some people say it would have been found years ago, but no-one knows for sure. It might still be here. Every chance I get, I dig and I dig. But nobody really wants you to leave holes all over their garden, so I have to pretend I'm grubbing out weeds. It takes forever, and I can only treasure-hunt in the holidays.'

'I guess I could help you,' said Austin. 'But we'd have to split any treasure we find, fifty-fifty.'

Jade nodded. 'I'm cool with that,' she said.

'When shall we start?' asked Austin.

'Tomorrow, if you like.'

'You're on,' said Austin.

They went back up Meteor Street together.

‘See you tomorrow then,’ Jade said, as she went up her driveway.

‘I can’t wait!’ Austin replied.

\* \* \*

Jade’s mum met her at the door.

‘Was that the new boy?’ she asked.

‘His name’s Austin,’ said Jade. ‘I think we might be friends.’

‘Nice one,’ said Jade’s mum. ‘It’s been pretty dull for you on the street with no other kids your age around.’

‘He thought our street was the most boring street in the world,’ Jade explained. ‘So I told him the story behind the street names.’

‘Which story?’ asked Jade’s mum. ‘The one about the captain’s treasure, or the dinosaur bone discovery, or the UFO sighting?’

‘The captain’s treasure, of course,’ said Jade. ‘That’s the best of the lot. But I might tell him the others if he ever gets bored again. After all, any one of them could be true. Not even the old people on Sunset Way know for sure.’

‘Hmm,’ said Jade’s mum.

‘We’re going to meet up again tomorrow,’ Jade said.

‘I’m paying you to help tidy Mrs Domanski’s garden tomorrow,’ Jade’s mum reminded her.

‘I haven’t forgotten,’ said Jade. ‘Austin’s going to come along and do some digging too. And we’ve agreed to split the treasure—my pay, I mean—fifty-fifty.’

## My Record of Texts

'Texts' includes sound, print, film, digital and multimedia. It's the way we communicate. So that means it can be a book, text message, podcast, play, website and even a movie.

When we talk about text, it could be any of these communications.

Record the title of each text you engage with over the next three weeks. If it is a novel, you might like to record each chapter title.

Record of Texts				
Date	Title	Type of text	Independent or shared	Notes
1 April	The Barber Shop Scissor Twister	comic	Shared with dad	I recommend this comic because it is funny. Dad did funny voices.

# MONDAY

4th October 2021



# PUBLIC

# HOLIDAY

# TUESDAY

5th October 2021



# Lesson 1 – What is character?

Students are learning to:

- identify the ways in which character development creates interest for the reader or viewer
- make connections between their own experiences and those of characters and events represented in texts.

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Students find an object and come up with a list of as many unconventional uses for it as they can.</p> <p>Explain the unconventional uses to an adult and/or as a video recording</p>	
<p><b>Reading and viewing</b></p> <p>Students view the short video about character.</p> <p>Students answer the following questions in their student workbook-</p> <ul style="list-style-type: none"> <li>• What is character?</li> <li>• Are characters essential to texts?</li> <li>• What traits does a character need in order to drive or influence the actions in a narrative?</li> <li>• Students complete 'character video' activity in student workbook.</li> </ul>	<p><a href="#">Resource 1 – character video</a></p> <p><a href="#">Resource 2 – Student workbook</a></p>
<p><b>Writing and representing</b></p> <p>Connection to character – written task</p> <p><b>Success criteria:</b></p> <ul style="list-style-type: none"> <li>• interprets the function of the chosen character to the text</li> <li>• identifies the character development that caused them to connect personally with the character.</li> </ul> <p>Students think of a character they have connected with in a visual or written text (movie, book, TV show, song, poem etc.).</p> <p>Students explain why they connected with that character by identifying the character's goals, strengths and weaknesses, what problem they are trying to solve and what made them relatable.</p> <p>Students also describe the appearance, behaviour, personality of the character they connect with.</p> <p>Student complete 'connection to character' in student workbook.</p>	<p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students to discuss the following questions with an adult or their class online.</p> <p>How has my understanding of character changed?</p> <p>How will knowing this help me to understand and develop texts?</p>	



## Lesson 1

During this lesson you will learn to:

- identify the ways in which character development creates interest for the reader or viewer
- make connections between your own experiences and those of characters and events represented in texts.

### 1.1 Speaking and listening

- Find an object and come up with a list of as many unconventional uses for it as they can.
- Explain the unconventional uses to an adult.
- For example: a ruler. Unconventional used could include a back scratcher, book-marks, paint stirrer, garden sticks, puppet.

### 1.2 What is 'Character'?

After reading the transcript of the video on [character](#) (look in the RESOURCES section, located at the beginning of the week's work), answer the following questions:

What is character?

How are characters essential to texts?

What traits does a character need in order to drive or influence the actions in a narrative?

### 1.3 Connection to character

Think of a character you have connected with in a visual or written text (movie, book, TV show, song, poem etc.).

Explain why you connected with that character by identifying the following:

Character's goals

Strengths and weaknesses

What problem are they trying to solve?

What made them relatable?

Thinking of the character you have connected with, describe the following:

Appearance of the character

Behaviour of the character

Personality of the character

Draw the character:

## 1.4 Reflection

Discuss with an adult or your class online:

How has my understanding of character changed?

How will knowing this help me to understand and develop texts?



# PRIMES, COMPOSITES AND FACTORS

Tuesday Week 1 Term 4

# Learning

## Intention:

## Success

## Criteria:

To understand how whole numbers can be broken up into prime factors

- Identify and describe prime numbers
- Identify and describe composite numbers
- Factorise whole numbers into composite and prime numbers.

**What is a  
prime  
number?**

A prime number is a whole number that can only be divided by 1 and itself. E.g. 7  
The only whole numbers that can divide into 7 are 1 and 7.

**What is a  
composite  
number?**

A composite number is a whole number that can be divided by more (or less\*) whole numbers than 1 and itself. E.g. 8  
8 can be divided by 1, 2, 4, and 8.

\*1 is not a prime number because 1 and itself is the same number so only gets counted once.

# Write whether the following numbers are prime or composite

Write prime or composite in the blue boxes

15

27

19

57

91

132

13

1

2

56

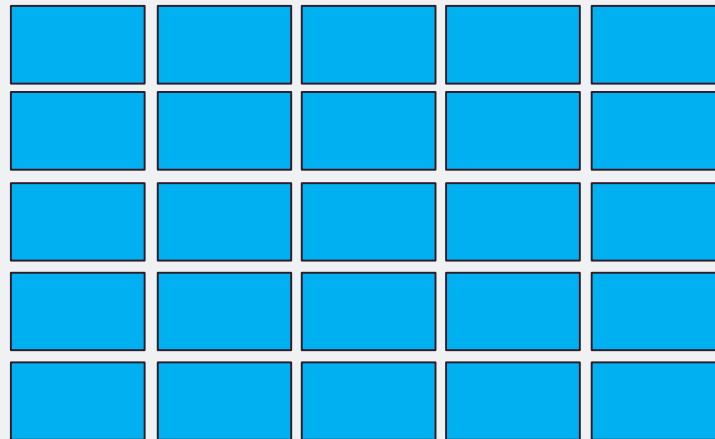
Follow the instructions to help find all the prime numbers.

### The Sieve of Eratosthenes

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

Find all the prime numbers in the hundred grid below. (Do not shade the number itself as it is not a multiple.)

- a Cross out 1 since it is not prime.
- b Shade all the multiples of 2.
- c Shade all the multiples of 3.
- d Shade all the multiples of 5.
- e Shade all the multiples of 7.
- f The remaining numbers are prime numbers, apart from 1 which is a special case. List them:



Put each prime number in a separate box

A **multiple** is a number that would appear in the base number's times table. E.g. 6 is a multiple of 3 because  $3 \times 2 = 6$

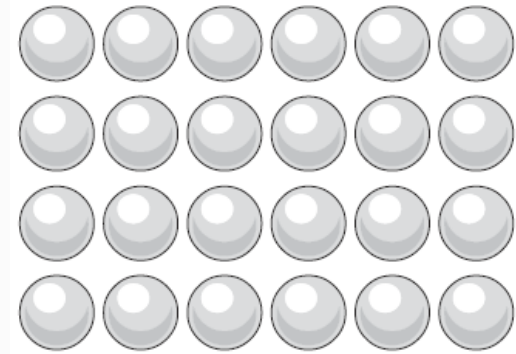


A factor is a number that divides equally into another number.

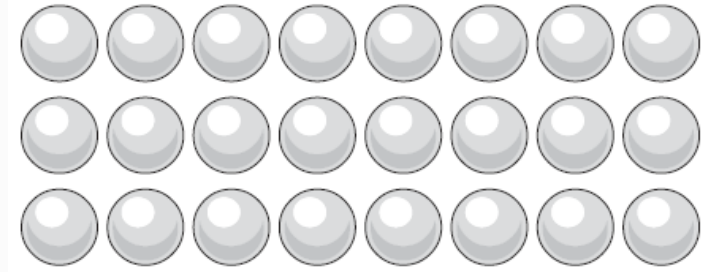
$$5 \times 4 = 20$$

20 arranged in 5 rows means 4 in each row.

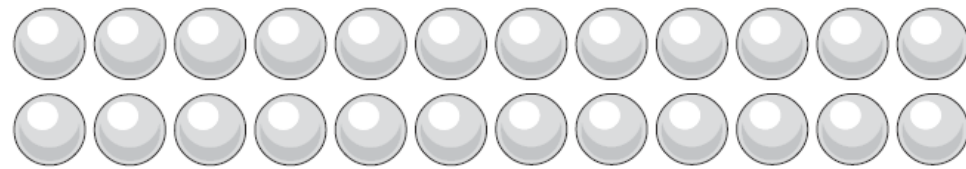
5 and 4 are factors of 20.



$$\square \times \square = 24$$



$$\square \times \square = 24$$



$$\square \times \square = 24$$



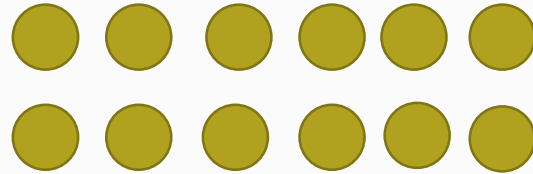
$$\square \times \square = 24$$

List the factors of 24



**How many  
ways can  
you arrange  
12?**

Draw or copy and paste the circles to  
create different arrangements of 12



List the factors of 12

Six empty blue rectangular boxes arranged horizontally, intended for listing the factors of 12.

## Find the secret numbers based on the clues

I am the only even prime number. I am

I am one of the two numbers that are neither prime nor composite. I am not zero.

I am

I am a 2 digit number. I am less than 40. I am a prime number and my second digit is smaller than my first number. I am

I am the largest 5 digit number where no number is repeated. I am

I am the largest 4 digit number that uses the 4 smallest prime numbers. I am

I am a prime number. My digits add to total the smallest prime number. I am

# Learning From Home

## Take-home Pack



# WEDNESDAY

6th October 2021

Teachers off-line 12-3pm

**Complete the following tasks:**

**English:** Grammar lesson; read a book

**Maths:** Maths Investigation

*If you can access a web-enabled device today,  
then also complete:*

**Any unfinished Teams Assignments**

**Reading Eggs:** 2 map lessons & any  
assignments

**Mathletics:** minimum 5 assigned activities

# W1: Speech and Dialogue

## Lesson 1: Direct speech— BAN THE BORING!



Am I boring you?

“Hi,” said George.

“Hi,” said Lucy.

“How are you going?” said George.

“Eh I’m ok. I just want to get back to school.” said Lucy.

“Yeah me too!” said George.

“Did you have a good holiday?” said Lucy.



## Ban the boring. Make speech useful and interesting in your writing

- On a scale of 0-mind numbing, how boring was the direct dialogue from the first slide?
- Direct speech should be used to do a few things:
  - Develop character personalities and emotion
  - Progress the action in the scene
  - Reveal relationships



## Lets rewrite parts of the opening slide

"Hi!" exclaimed George, rushing in for a hug. He had not seen anyone from school for so long!

"Hey George." replied Lucy, pulling herself away out of the warm embrace.

"What have you been up to?" said George, a big smile on his face. Knowing Lucy well, he knew her answer before she said it. She wasn't called a bookworm for nothing.

"Oh you know, busting to get back to school."



# How to punctuate speech – Speaker at the end

- ▶ A speech mark always signals the start and end of a person speaking. Anything in between them is what the character will say out loud.
- ▶ Speech always needs to be punctuated BEFORE closing. See below:
  - ▶ "I like chocolate," said Ivana.
- ▶ You can see that when the speaker is at the end, we ALWAYS punctuate with a comma (question mark or exclamation mark is also ok), NOT with a full stop.



## Activity 1

- ▶ Write 5 sentences with the speaker at the end. PAY ATTENTION to the punctuation.
  - ▶ Start with a capital letter, and end with either a comma, question or exclamation mark. NOT a full stop.
  - ▶ The full stop goes at the end after the speaker.
- ▶ "I watched a movie," said Kerry.
- ▶ "Do you like fruit?" asked Louise.
- ▶ "I love it!" yelled Chris.

*Do you have a capital letter at the start of the speech?*

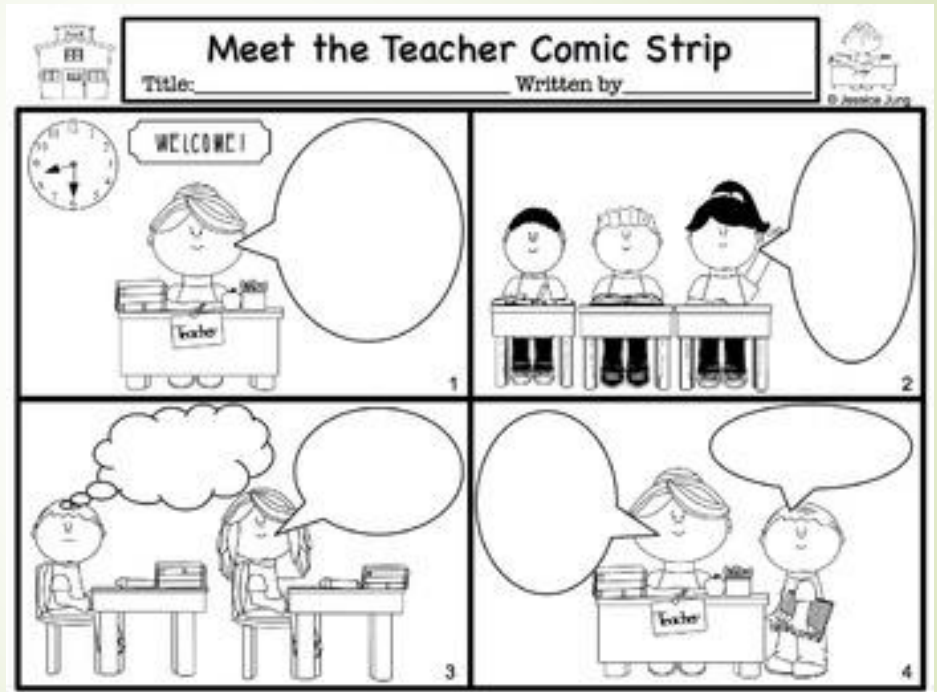
*"Yes," said the Gruffalo.*



## Activity 2: Comic Strips

Fill in the speech bubbles in the following comic strip. For this activity, you DON'T have to use speech punctuation OR use the word said. Look online for cartoon examples for a good idea.

You might not be able to write inside the speech bubbles provided.



## Activity 3 – What are they saying?

Choose one of the following pictures. What are they saying in their conversation? Make up the dialogue between the two characters. Each character needs to speak at least ONCE. You MUST have correct punctuation





# How to punctuate speech – Speaker at the start

- ▶ A speech mark always signals the start and end of a person speaking. Anything in between them is what the character will say out loud.
- ▶ Speech always needs to be punctuated BEFORE closing. See below:
  - ▶ Harrison said, “Check out this cool trick.”
- ▶ You can see that when the speaker is at the start, we ALWAYS punctuate with a comma BEFORE commencing our speech (using speech marks)
- ▶ The speaker ALWAYS starts with a capital letter and will end their sentence with a full stop.



## Activity 4

- ▶ Write 5 sentences with the speaker at the start. PAY ATTENTION to the punctuation.
  - ▶ Lead with a comma before the opening speech marks and ALWAYS start with a capital letter.
  - ▶ The full stop will go at the end just before the closing speech marks.
- ▶ David asked, “Where were you?”
- ▶ Chloe said, “I’ll have a drink please.”
- ▶ Brent said, “Basketball is the best sport.”



Do you have speech marks at the start and at the end of the words which are being spoken?

“Yes,” said Skinner.



# MATHS INVESTIGATION

## APPLY KNOWLEDGE AND UNDERSTANDING

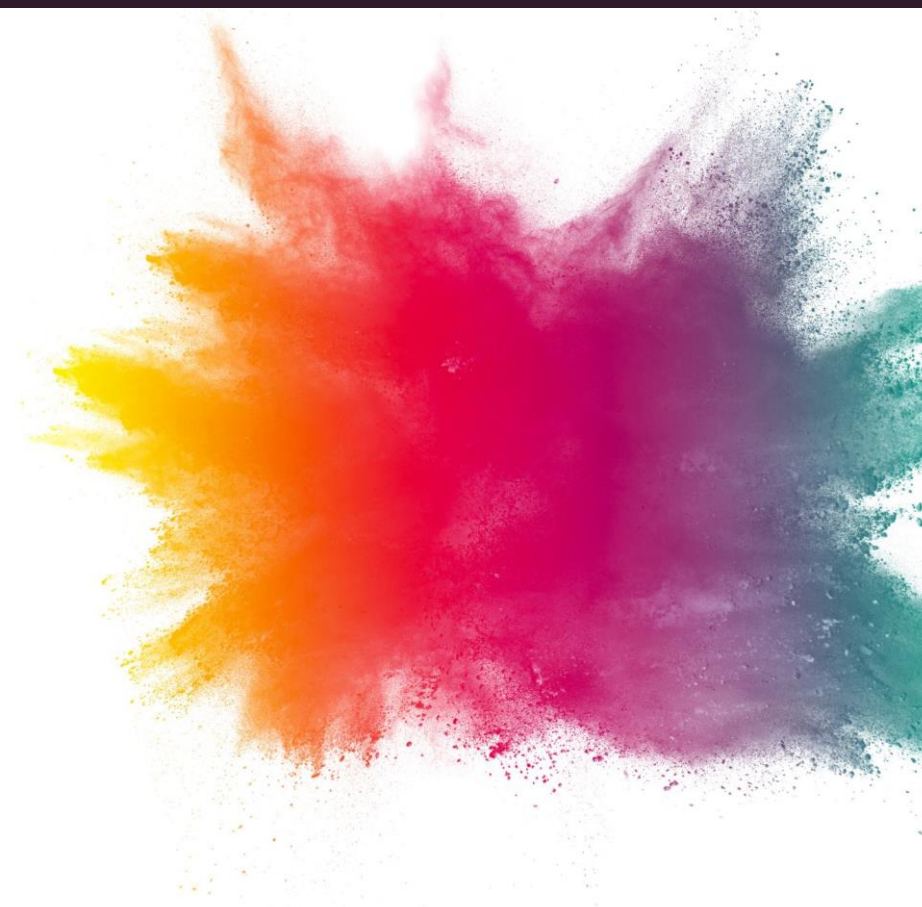
mass | time | fractions | data

Select a recipe for something you can bake at home with adult supervision. Use this recipe to demonstrate the following skills:

- Record the ingredients and quantity using the correct unit of measurement
- Time how long it takes to prep and cook the meal
- Divide the meal equally to serve all family members and record this as a fraction
- Survey your family on what they rate your meal out of 5 and then graph these results.



*What other skills can you demonstrate?*



# FACTORS AND MULTIPLES

Wednesday Week 1 Term 4

# Learning

## Intention:

## Success

## Criteria:

To learn how to find common factors and common multiples

- Find the common factors and multiples of two or more numbers
- Find the highest common factor (HCF) of two or more numbers
- Find the lowest common multiple (LCM) of two or more numbers

# What is a factor?

# What is a multiple?

A **factor** is a number that divides equally into another number.

$$5 \times 4 = 20$$

20 arranged in 5 rows means 4 in each row.

5 and 4 are factors of 20.

A **multiple** is a number that would appear in the base number's times table.

E.g. 6 is a multiple of 3 and 2

because  $3 \times 2 = 6$

**Write factors on the left and multiples on the right of the number in the middle**

**All Factors**

12, 6, 4, 3, 2, 1

12

10

24

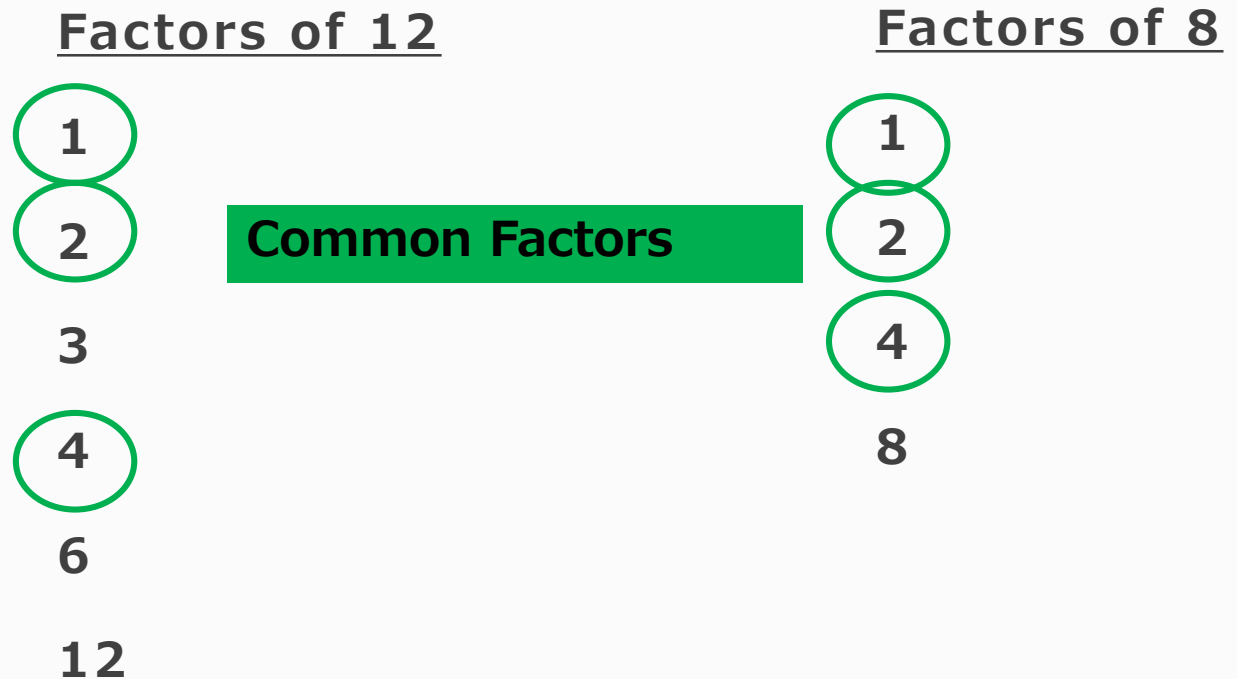
6

13

**Five Multiples**

24, 36, 48, 60, 72

**The Highest  
Common  
Factor is the  
largest factor  
that 2 or  
more  
numbers  
share.**



**You can see that 1, 2, and 4 are all common factors. Which makes 4 the highest common factor (HCF)!**

# List the factors of each number that draw or move the circle over the Highest Common Factor (HCF)



List the factors of 24



List the factors of 16



List the factors of 32



List the factors of 40



List the factors of 15



List the factors of 20



List the factors of 18



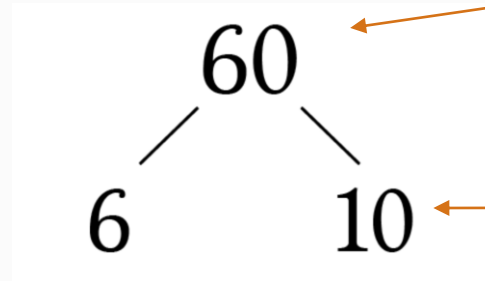
List the factors of 60





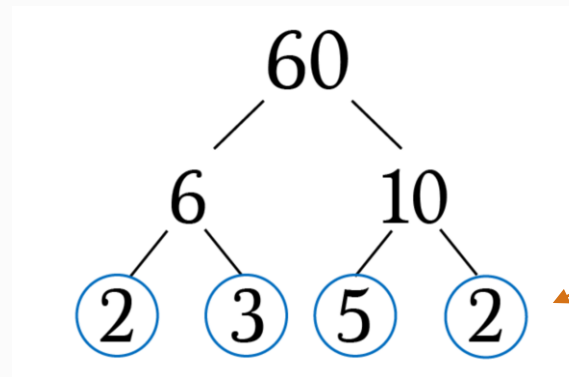
# Factor trees

These help  
you find the  
**PRIME**  
factors of a  
number



The top number is our starting number 60

We can then break it down into 2 factors

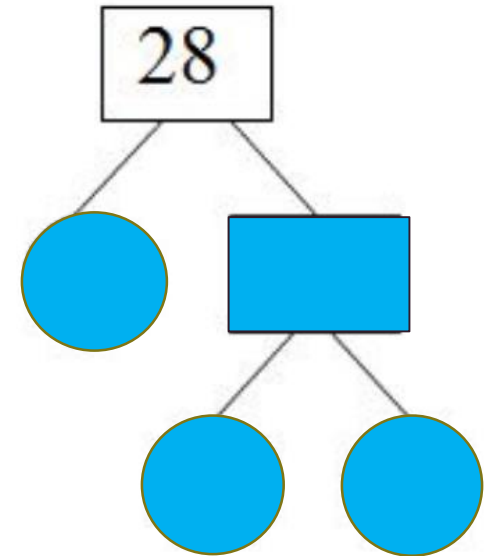
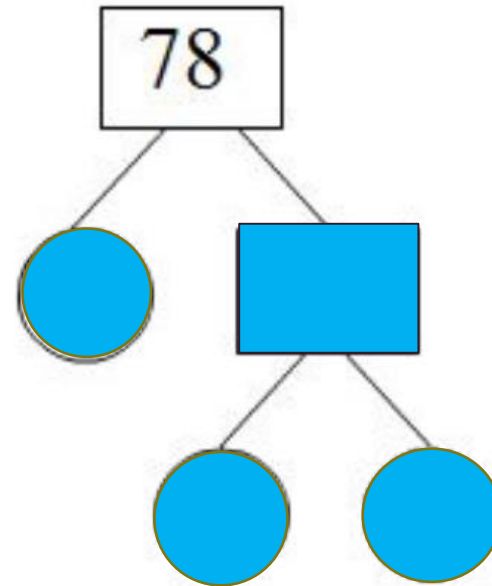
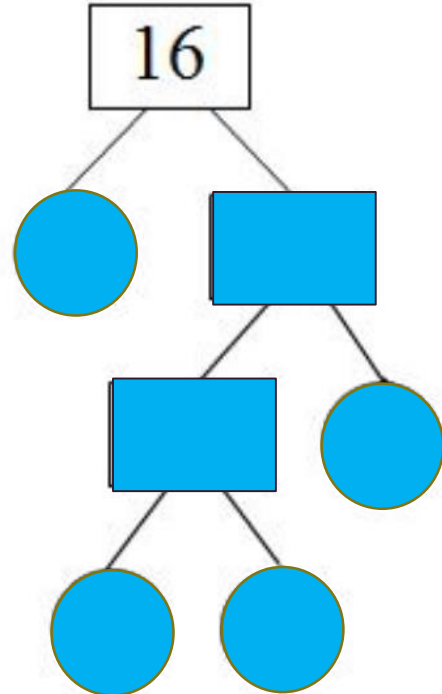
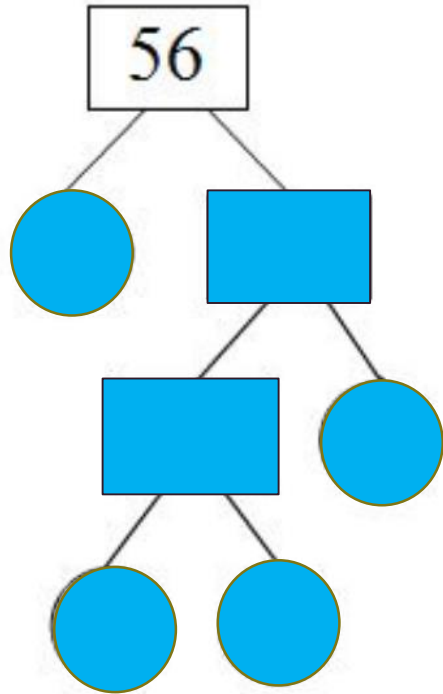


We can then break those numbers down further into more factors

Because these last factors are primes we cannot break them down further.

We can test that it is correct because  $2 \times 3 \times 5 \times 2 = 60$

Complete these factor trees. Prime numbers will end up in the circles and composite numbers will be in the rectangles



## So ... what is a "Multiple" ?

We get a **multiple** of a number when we **multiply it by another number**. Such as multiplying by 1, 2, 3, 4, 5, etc, *but not zero*. Just like the multiplication table.

Here are some examples:

The multiples of **4** are: 4,8,12,16,20,24,28,32,36,40,44,...

The multiples of **5** are: 5,10,15,20,25,30,35,40,45,50,...

## What is a "Common Multiple" ?

Say we have listed the first few multiples of **4** and **5**: the **common multiples** are those that are found in both lists:

The multiples of 4 are: 4,8,12,16,**20**,24,28,32,36,**40**,44,...

The multiples of 5 are: 5,10,15,**20**,25,30,35,**40**,45,50,...

Notice that **20** and **40** appear in both lists?

So, the common multiples of 4 and 5 are: **20, 40**, (and **60, 80**, etc ..., too)

## What is the "Least Common Multiple" ?

It is simply the **smallest** of the common multiples.

In our previous example, the smallest of the common multiples is **20** ...

... so the **Least** Common Multiple of 4 and 5 is **20**.

## Finding the Least Common Multiple

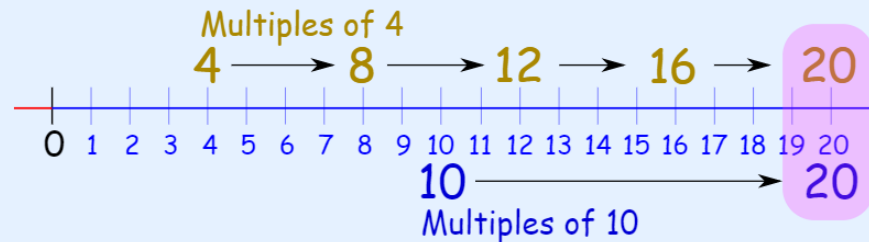
List the multiples of the numbers until we get our first match.

Example: Find the least common multiple of 4 and 10:

The multiples of 4 are: **4, 8, 12, 16, 20, ...**

and the multiples of 10 are: **10, 20, ...**

Aha! there is a match at 20. It looks like this:



So the least common multiple of 4 and 10 is **20**

List the first 8 multiples of each number then draw or move the circles over the lowest (least) common multiple (LCM)



Multiples of 9



Multiples of 6



Multiples of 3



Multiples of 8



Multiples of 7



Multiples of 5



Multiples of 10



Multiples of 4



# Final Challenge

For each questions find the lowest common multiple between the 3 numbers. Which question do you think will have the lowest answer?

A) 6, 7, 8

B) 5, 9, 8

C) 5, 9, 6

# THURSDAY

## 7th October 2021



## Lesson 2 – Characters can be simple or complex

Students are learning to:

- identify the ways in which character development creates interest for the reader or viewer
- interpret characters in texts.
- understand that characters may be simple or complex
- analyse and evaluate the way inference is used in a text to build understanding.

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Students use the character they chose to write about in lesson 1. They describe the character in detail to an adult using two truths and one lie. Students ask the adult to identify the part of the description that is untrue.</p>	
<p><b>Reading and viewing</b></p> <p>Characters can be simple with one or two pertinent characteristics or complex with detailed description of their features and personality. Simple characters remain unchanged throughout the story and more complex characters can develop and change as a result of events.</p> <p>Students think of at least one example of a simple character and a complex character from stories or movies they have read or viewed.</p> <p>Students read or listen to the text, The Most Boring Street in the World from The School Magazine.</p> <p>Students answer the following questions:            Are the characters complex or simple?            How do you know this?            Do the characters in this text need to be more complex to serve their purpose?</p> <p>Students complete a Venn diagram using information that they know about the characters Jade and Austin.</p> <p>Ask students to reflect on the characteristics we infer about Jade and Austin that are not referred to in the text and add these characteristics to the Venn diagram.</p>	<p><a href="#">Resource 3- The Most Boring Street in the World (online)</a></p> <p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>
<p><b>Writing and representing</b></p> <p>Students take on a reporter role. They are to formulate 5 questions to ask the characters Jade and Austin.</p> <p>Students write the questions and the responses to the interview questions from both the characters of Austin and Jade.</p> <p>Students to complete activity on 'interview questions' in the student workbook.</p>	<p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Knowing that the characters of Jade and Austin are represented so simply, how were you able to know enough about them to assume their identity and answer the interview questions?</p>	



## Lesson 2

During this lesson you will learn to:

- identify the ways in which character development creates interest for the reader.
- interpret characters in texts.
- understand that characters may be simple or complex.

### 2.1 Speaking and listening

Use the character you chose to write about in lesson 1.

You are to describe the character in detail to an adult using two truths and one lie.

Ask the adult to try to identify the part of the description that is untrue.

### 2.2 Simple or complex?

Read or listen to the text, [The Most Boring Street in the World](#) from The School Magazine.

Characters can be simple with one or two pertinent characteristics or complex with detailed description of their features and personality.

Simple (or flat) characters remain unchanged throughout the story and more complex (or round) characters can develop and change as a result of internal or external events.

Think of at least one example of a simple character and a complex character from stories or movies you have read or viewed.

Simple:	
Complex:	

Are the characters in the text 'The most boring street in the world' complex or simple?

**Tick inside the box next to the correct response.**

Simple

OR

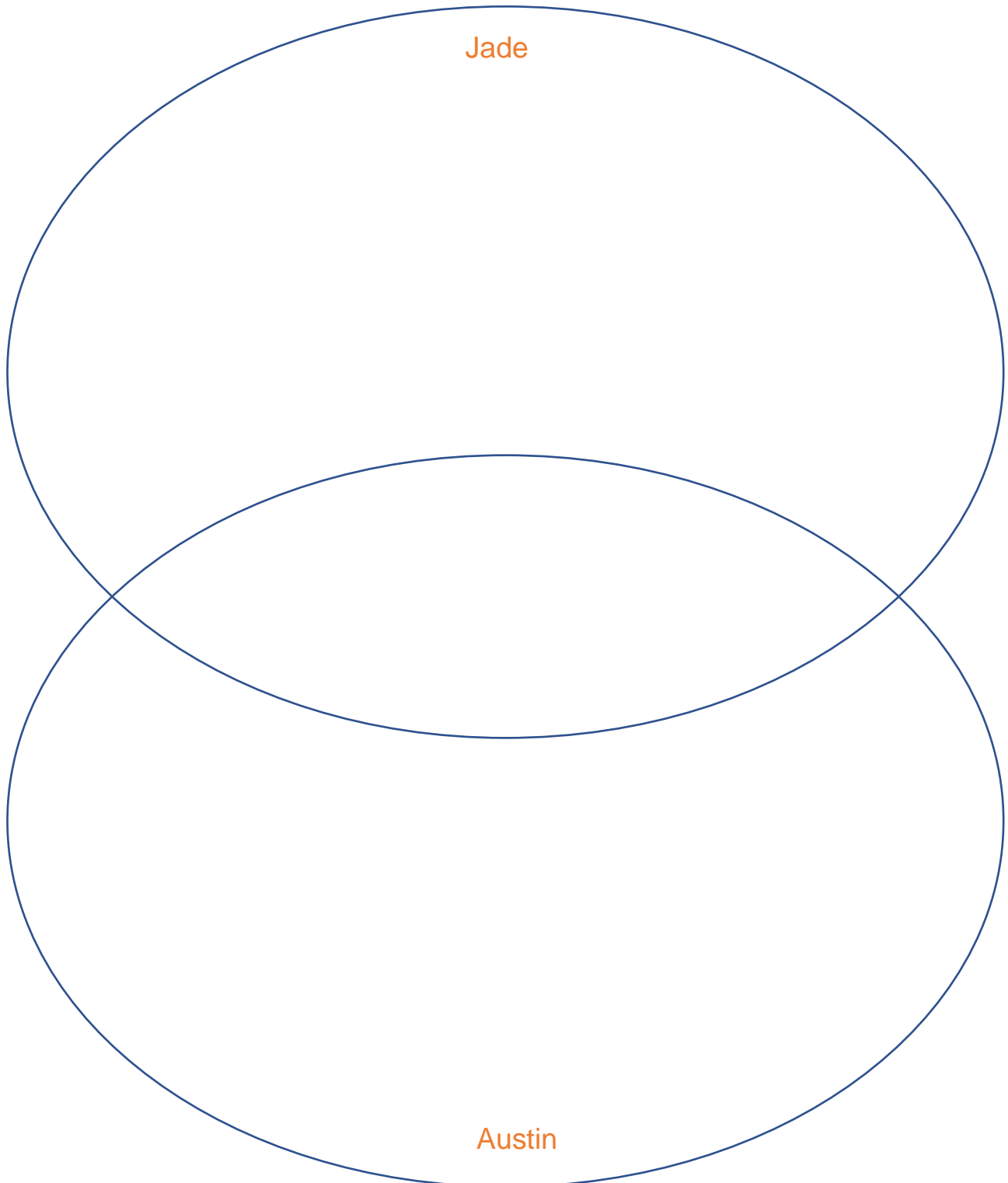
Complex

How do you know this?

Do all characters in texts need to be complex to serve their purpose? Why/why not?

## Venn diagram

Complete a Venn diagram using information that you know about the characters Jade and Austin. Reflect on the characteristics can we infer about Jade and Austin that are not referred to in the text and add these characteristics to the Venn diagram.



## 2.3 Interview questions

Take on a reporter's role. You are to formulate 5 questions to ask the characters Jade and Austin. Write the questions and the responses to the interview questions from both the characters of Austin and Jade.

<b>Question 1:</b>
Austin's answer:
Jade's answer:
<b>Question 2:</b>
Austin's answer:
Jade's answer:
<b>Question 3:</b>
Austin's answer:
Jade's answer:
<b>Question 4:</b>
Austin's answer:
Jade's answer:
<b>Question 5:</b>
Austin's answer:
Jade's answer:

## 2.4 Reflection

Knowing that the characters of Jade and Austin are represented so simply by the composer of the text, how were you able to know enough about them to assume their identity and answer the interview questions?

Discuss with an adult.



# NEGATIVE NUMBERS

Thursday Week 1 Term 4

**Learning**

**Intention:**

**Success**

**Criteria:**

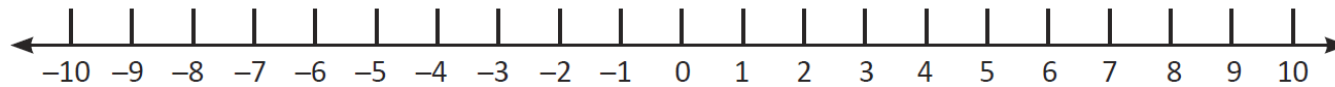
To understand negative numbers and their relationship with other numbers

- Explain what negative numbers are
- Identify negative numbers from different contexts

## Types of numbers – negative numbers

Negative numbers are numbers with a value less than zero.

Negative numbers always have a minus sign before them.



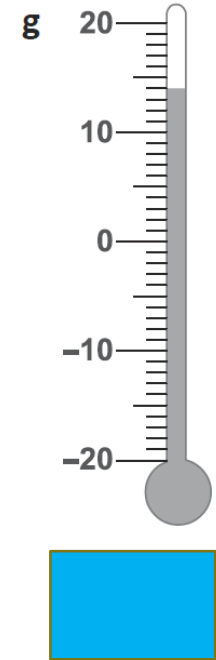
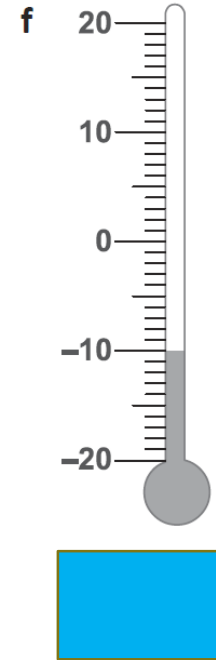
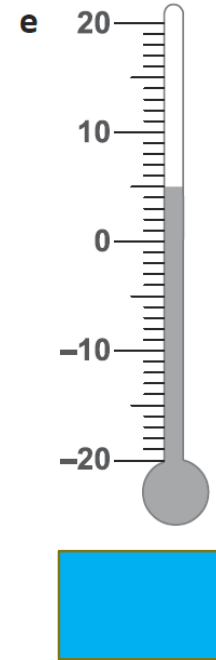
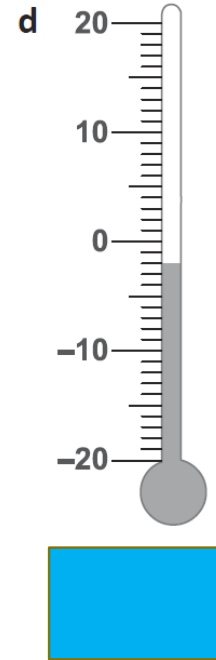
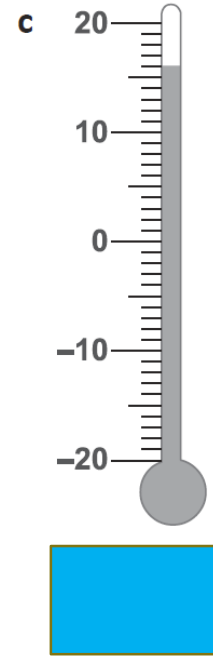
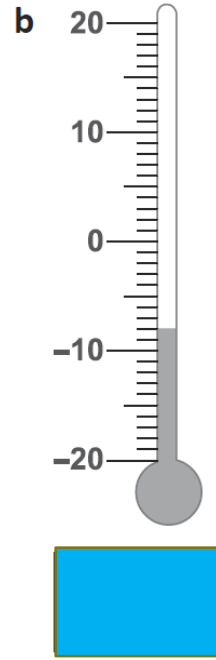
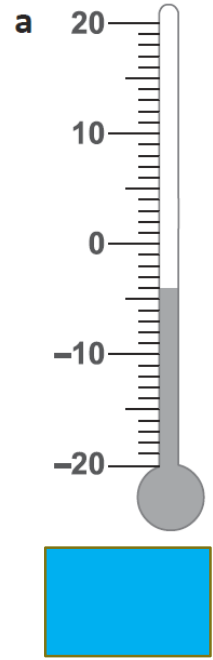
Negative numbers are used when we measure temperature and in transactions with money.

When we are in debt, we have a negative balance. This means we owe money.

# WHAT IS A NEGATIVE NUMBER?

Answer  
the  
questions  
using the  
blue  
boxes

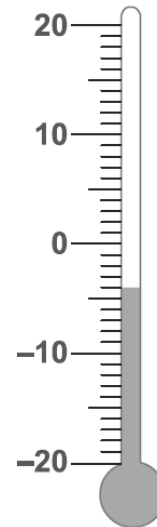
What is the temperature showing on each thermometer in °C (degrees Celsius)?



h On Wednesday morning the thermometer reads  $-4^{\circ}\text{C}$ . One hour later it is  $3^{\circ}\text{C}$  colder.

The new temperature is

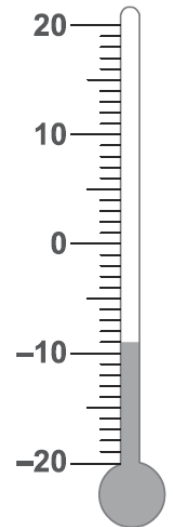
Blue box for answer



i On Thursday morning the thermometer reads  $-9^{\circ}\text{C}$ . One hour later it is  $4^{\circ}\text{C}$  warmer.

The new temperature is

Blue box for answer



Answers these questions about Sarah's bank account.  
Remember: Withdraw/withdrew means take money out and  
deposit means put money into the bank account.

Sarah had \$10 in her bank account. What would the balance be if she:

**a** Withdrew \$15?

**b** Withdrew \$9?

**c** Deposited \$5?

**d** Deposited \$2?

**e** Withdrew \$20?

**f** Withdrew \$12?

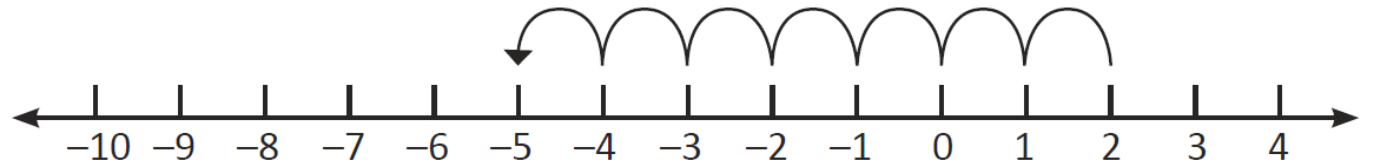
**g** Deposited \$7?

**h** Withdrew \$25?

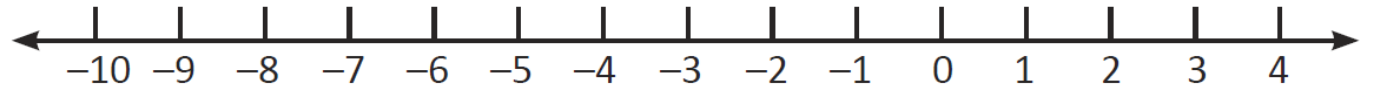


Answer these questions. Use the number line to help you go in the right direction.

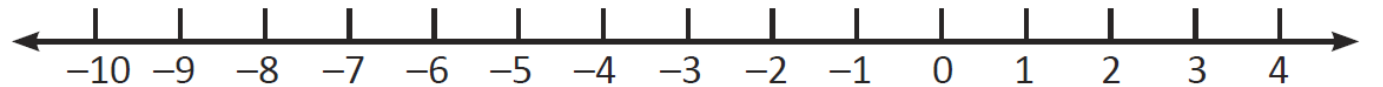
$$2 - 7 = \boxed{-5}$$



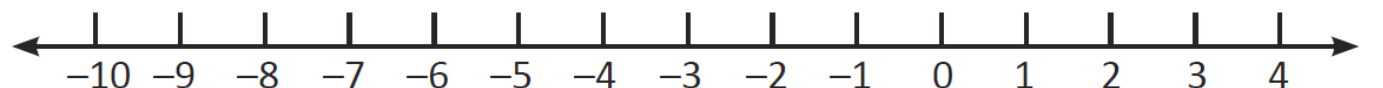
$$1 - 5 = \boxed{\phantom{00}}$$



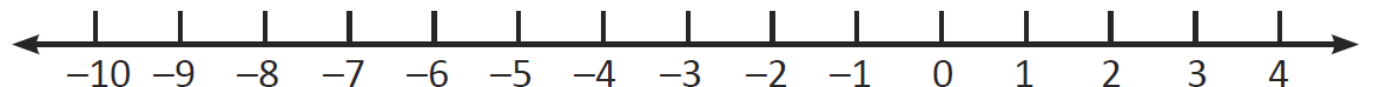
$$-4 + 7 = \boxed{\phantom{00}}$$



$$-6 + 3 = \boxed{\phantom{00}}$$



$$-1 - 7 = \boxed{\phantom{00}}$$



# What happens when we add or subtract negative numbers?

Let's consider the following question:

$$7 + -4 =$$

We should read this as 7 plus negative 4  
NOT 7 plus minus 4 as that can be a little confusing.

This is the rule for when we see two symbols next to each other. We can simplify those 2 symbols in to one symbol.

+ then - become -  
- then + become +  
+ then + become +  
- then - become -

So  $7 + -4 =$  can be read as  $7 - 4 = 3$

Remember the rules above help us for addition and subtraction when we have two symbols next to each other.

Let's try some questions, first simplify the symbols then solve the question – the first 2 have been done for you.

$$8 - + 6 = 8 \text{ [ ] } - 6 = \text{ [ 4 ]}$$

$$9 + - 6 = 9 \text{ [ ] } 6 = \text{ [ ]}$$

$$6 - - 4 = 6 \text{ [ ] } 4 = \text{ [ ]}$$

$$3 + + 6 = 3 \text{ [ ] } 6 = \text{ [ ]}$$

$$-1 - - 6 = -1 \text{ [ ] } 6 = \text{ [ ]}$$

$$12 - + 5 = 12 \text{ [ ] } 5 = \text{ [ ]}$$

$$-22 + - 6 = 8 \text{ [ ] } 6 = \text{ [ ]}$$

$$18 - - 16 = 18 \text{ [ ] } 16 = \text{ [ ]}$$

$$38 + + 6 = 38 \text{ [ ] } 6 = \text{ [ ]}$$

$$28 + - 26 = 28 \text{ [ ] } 26 = \text{ [ ]}$$

$$-8 - + 36 = -8 \text{ [ ] } 36 = \text{ [ ]}$$

$$68 - - 6 = 68 \text{ [ ] } 6 = \text{ [ ]}$$

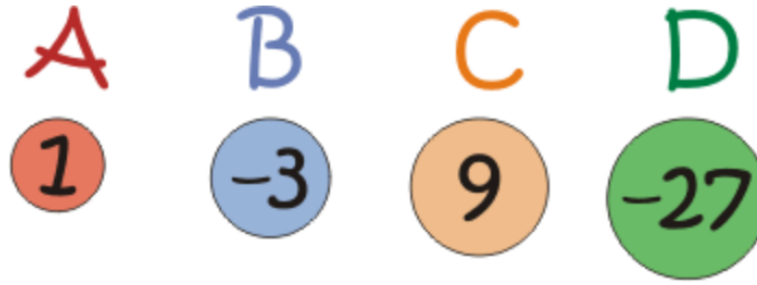
$$-78 - - 86 = -78 \text{ [ ] } 86 = \text{ [ ]}$$

$$108 - + 16 = 1088 \text{ [ ] } 16 \text{ [ ]}$$

=

+ then - become -  
- then + become -  
+ then + become +  
- then - become +

# Final Challenge Weights



Imagine you have **two of each** of the 'weights' above.  
Different combinations of the weights available allow you to make different totals.

For example:

$$B + C = 6$$

$$B + 2C = 15$$

$$A + 2B + C = 4$$

$$2A + B + 2C + D = -10$$

The largest total you can make is 20 (check you agree).  
The smallest total you can make is  $-60$  (again, check you agree).

**Can you make all the numbers in between?**

**Do this one on  
paper and attach a  
photo**

# FRIDAY

8th October 2021



## Lesson 3 – Characters have the power to influence and change each other

Students are learning to:

- understand that characters may change as a result of events
- experiment with changing other's imaginative text by changing aspects of the text.

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Students draw a picture of an outrageous fictional character in their student workbook.</p> <p>Ask students to describe the character in detail to an adult and the adult is to draw a picture based on their explanation.</p> <p>Students and their adult compare their character pictures to evaluate the effectiveness of the student description.</p>	<p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reading and viewing</b></p> <p>Students reread the text, The Most Boring Street in the World from The School Magazine.</p> <p>Ask students to answer the following questions in their student workbook using the 'perspective and influence' activity.</p> <p>Which character in the text showed they could influence another character?</p> <p>How was Jade able to change Austin's perspective of the boring street?</p> <p>How do you know that Austin's perspective has changed? What evidence is there of this?</p>	<p><a href="#">Resource 3 - The Most Boring Street in the World (online)</a></p> <p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Writing and representing</b></p> <p>Students write a letter from Austin to Jade, expressing his gratitude and outlining how his perspective of the street has changed due to her actions.</p> <p>Students complete 'letter of perspective' in their student workbook.</p>	<p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students to discuss the following questions with an adult or their class online.</p> <p>How can I indicate that characters have changed as a result of events?</p> <p>Is it important that characters can show changes as a result of certain things that happen in the story?</p> <p>Does this make them more realistic?</p>	

## Lesson 3

During this lesson you will learn to:

- understand that characters may change as a result of events
- experiment with changing other's imaginative text by changing aspects of the text.

### 3.1 Outrageous fictional character

Draw a picture of an outrageous fictional character.

Describe the character in detail to an adult and ask them to draw a picture based on your explanation.

Compare the character pictures to evaluate your effectiveness to describe a character.

### 3.2 Perspective and influence

Reread the text, [The Most Boring Street in the World](#) from The School Magazine.

Which character in the text showed that they could have influence on another character?

How was Jade able to change Austin's perspective of the boring street?

How do you know that Austin's perspective has changed? What evidence is there of this?

### 3.3 Letter of perspective

Reread the text, [The Most Boring Street in the World](#).

Write a letter from Austin to Jade, expressing his gratitude and outlining how his perspective of the street has changed due to her actions.

### 3.4 Reflection

Discuss with an adult or your class online:

How can I indicate that characters have changed as a result of events?

Is it important that characters can show changes as a result of certain things that happen in the story?

Does this make them more realistic?





# NEGATIVE NUMBERS

Friday Week 1 Term 4

**Learning**

**Intention:**

**Success**

**Criteria:**

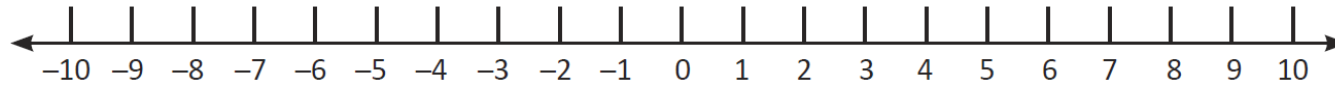
To understand negative numbers and their relationship with other numbers

- Perform different operations with negative numbers

## Types of numbers – negative numbers

Negative numbers are numbers with a value less than zero.

Negative numbers always have a minus sign before them.



Negative numbers are used when we measure temperature and in transactions with money. When we are in debt, we have a negative balance. This means we owe money.

# WHAT IS A NEGATIVE NUMBER?

# Adding Negative Numbers

+ then - become -  
- then + become -  
+ then + become +  
- then - become +

1)  $-1 + -13 =$

2)  $-22 + -35 =$

3)  $-34 + -31 =$

4)  $-35 + -18 =$

5)  $45 + -46 =$

6)  $-48 + -22 =$

7)  $29 + -38 =$

8)  $27 + -16 =$

9)  $-47 + -46 =$

10)  $31 + -44 =$

11)  $-40 + -13 =$

12)  $-19 + 24 =$

# Subtracting Negative Numbers

+ then - become -  
- then + become -  
+ then + become +  
- then - become +

1)  $-5 - -35 =$

2)  $26 - -42 =$

3)  $-49 - 47 =$

4)  $2 - -30 =$

5)  $28 - -19 =$

6)  $26 - -10 =$

7)  $-31 - -31 =$

8)  $-33 - 23 =$

9)  $11 - -43 =$

10)  $-29 - -36 =$

11)  $-35 - -22 =$

12)  $34 - -15 =$

# Adding and Subtracting Negative Numbers

+ then - become -  
- then + become -  
+ then + become +  
- then - become +

$$1) 26 + \square = -12$$

$$2) -37 - 34 = \square$$

$$3) -22 + 48 = \square$$

$$4) \square - -3 = 15$$

$$5) \square + 35 = -3$$

$$6) 10 - \square = 48$$

$$7) -47 + \square = -9$$

$$8) \square - 23 = -58$$

$$9) \square - -33 = 24$$

$$10) 17 + \square = -30$$

$$11) \square + -34 = -45$$

$$12) \square - -40 = 38$$

# Multiplying and dividing with negative numbers

When we multiply and divide with negative numbers we need to remember these rules with the symbols.

+ times - equals -

+ times + equals +

- times - equals +

- times + equals -

These are also true for division.

Example:  $-7 \times 3 = -21$

$8 \times -2 = -16$

$-7 \times -4 = 28$

# Multiplying Negative Numbers

+ times - equals -  
+ times + equals +  
- times - equals +  
- times + equals -

1)  $3 \times (-1) =$

2)  $(-9) \times 6 =$

3)  $3 \times (-4) =$

4)  $9 \times (-2) =$

5)  $2 \times (-2) =$

6)  $(-3) \times 11 =$

7)  $(-10) \times (-6) =$

8)  $(-10) \times (-6) =$

9)  $10 \times (-7) =$

10)  $6 \times 0 =$

11)  $(-3) \times (-3) =$

12)  $(-7) \times (-6) =$



# Final Challenge with Negative Numbers

B) Use two numbers from the list below to answer each of the questions.

24	-12	-3	-4	-48	-6	2	-8
----	-----	----	----	-----	----	---	----

1)  x  = -8

2)  ÷  = 3

3)  x  = 36

4)  ÷  = -6

5)  x  = 72

6)  ÷  = -24

7) Find different pairs of numbers from the list to complete these equations:

x  = -96

÷  = -96

÷  = -4

÷  = -4

8) Find 3 different numbers from the list to complete this equation:

x  ÷  = -12

*There are 3 ways to do it! How many can you find?*

# WEEK 2

## English



# RESOURCES

## RESOURCES



'The Most Boring Street in the World' story by Bill Nagelkerke, and illustrated by Tohy Riddle



He looked one way. Then he looked the other. 'This has to be the most boring street in the world,' he muttered to himself.

A voice at his shoulder surprised him by saying: 'No, it isn't!'

The voice belonged to a girl. 'I'm Jade,' she said. 'I live two houses down. I saw you when you moved in last weekend. What you said isn't true, you know. We live on a very interesting street.'

'Yeah, right!' said Austin. 'It's nowhere near a mall. It's not on a bus route. There's no skate park. And everything's old. What's there to do? A great big fat nothing. BORING!'

Jade looked at him. 'Come with me to the end of our street,' she said. 'I might be able to change your mind.'

'Not likely,' said Austin.

But he had nothing better to do, so he followed Jade anyway. Two houses down he saw a parked car with a trailer attached. Big letters on the back of the trailer said: DIG THIS! GARDENING SERVICES.

'My mum looks after other people's gardens,' Jade explained.

The end of their street joined up with more streets.

‘Well?’ said Austin. ‘What’s there to see?’

‘Look up there,’ Jade told him.

Austin looked up. The sky was blue. Clouds drifted overhead. Everything was exactly the same as it had been all during the long summer holidays.

‘No, not up as high as that,’ said Jade. ‘There.’

‘There’ was a lamppost with signs of the street names attached.

‘I don’t get it,’ said Austin.

‘Our street is called Meteor Street,’ Jade said.

‘So?’

‘Some people say The Meteor was the name of a ship,’ Jade continued. ‘But not just any old ship.’

She paused. Austin took the bait.

‘What sort of ship was it then?’

Jade lowered her voice so Austin had to bend forward to hear her reply.

‘Some people say it was a pirate ship.’

‘Oh,’ said Austin, showing a glimmer of interest. ‘For real?’

‘That’s what some people say. Now, what’s the name of that street?’

Austin read the sign. ‘Skeleton Bay Road.’

Jade nodded. ‘Exactly. That road goes all the way to Skeleton Bay. Some people say The Meteor was scuttled in the bay.’

‘Scuttled?’ asked Austin.

‘Sunk,’ said Jade. ‘By its pirate crew. Some people say the crew mutinied because their captain went back on his word to share out the stolen treasure.’

‘Treasure?’ said Austin.

‘Gold coins, precious stones, necklaces, rings. All sorts.’

‘And it’s still there?’ said Austin, excitement creeping into his voice. ‘In Skeleton Bay?’

Jade shook her head. 'Way better than that,' she said. 'Only the old bones of the ship are still in the bay. Whenever there's a storm at sea, some people say you can hear the timbers of The Meteor rattling and groaning, like the voices of ghosts. You see, the story goes that when the crew came to demand their share of the treasure, they discovered the captain had escaped ashore in the longboat, taking the treasure with him. They scuttled his ship in revenge.'

'But what happened to the treasure?' asked Austin. 'Did the captain get away with it, or did his crew track him down?'

Jade pointed to another street sign. 'What does that one say?'

'Sunset Way,' Austin read.

'And what colour is a sunset?' asked Jade.

'Gold,' said Austin, thinking about it. 'Or sometimes red. Sometimes orange as well. Lots of colours.'

'The colours of treasure,' said Jade. 'Some people say that the captain buried it along Sunset Way.'

'But only old people live on that street,' Austin said. 'I've seen them.'

'They do now,' Jade agreed. 'But back in those days there was no street there at all. The captain meant to come back for the treasure, but ...'

At this point, Jade paused dramatically.

'His crew did track him down,' Austin finished.

Jade didn't say a word. She didn't need to.

'Did anyone ever find the treasure?' Austin asked.

'Don't talk so loudly,' Jade said. 'We don't want the whole world to hear. Some people say it would have been found years ago, but no-one knows for sure. It might still be here. Every chance I get, I dig and I dig. But nobody really wants you to leave holes all over their garden, so I have to pretend I'm grubbing out weeds. It takes forever, and I can only treasure-hunt in the holidays.'

'I guess I could help you,' said Austin. 'But we'd have to split any treasure we find, fifty-fifty.'

Jade nodded. 'I'm cool with that,' she said.

'When shall we start?' asked Austin.

'Tomorrow, if you like.'

'You're on,' said Austin.

They went back up Meteor Street together.

'See you tomorrow then,' Jade said, as she went up her driveway.

'I can't wait!' Austin replied.

\* \* \*

Jade's mum met her at the door.

'Was that the new boy?' she asked.

'His name's Austin,' said Jade. 'I think we might be friends.'

'Nice one,' said Jade's mum. 'It's been pretty dull for you on the street with no other kids your age around.'

'He thought our street was the most boring street in the world,' Jade explained. 'So I told him the story behind the street names.'

'Which story?' asked Jade's mum. 'The one about the captain's treasure, or the dinosaur bone discovery, or the UFO sighting?'

'The captain's treasure, of course,' said Jade. 'That's the best of the lot. But I might tell him the others if he ever gets bored again. After all, any one of them could be true. Not even the old people on Sunset Way know for sure.'

'Hmm,' said Jade's mum.

'We're going to meet up again tomorrow,' Jade said.

'I'm paying you to help tidy Mrs Domanski's garden tomorrow,' Jade's mum reminded her.

'I haven't forgotten,' said Jade. 'Austin's going to come along and do some digging too. And we've agreed to split the treasure—my pay, I mean—fifty-fifty.'



## Rodent Rodeo

[poem by Jody Jensen Shaffer](#)

A tiny hat,  
a pair of spurs,  
a buckle for  
a belt with pearls.  
That's all this rodent  
needs tonight  
to barrel race  
with all his might ...  
except a horse,  
a clown, some dirt,  
his dungarees,  
and red plaid shirt,  
a lasso, saddle,  
bolo tie,  
his boots, some barrels,  
orange and white.  
He's ready now.  
Just watch him go.  
He's at the Rodent Rodeo!

# MONDAY

11th October 2021





## Lesson 4 – Author voice

Students are learning to:

- understand that characters may change as a result of events
- adapt aspects of texts to create new texts by thinking creatively and imaginatively
- recognise and use first and third person narration.

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Students choose an object from their home and turn it into a character. Give the character humorous characteristics. Describe the character to an adult.</p>	
<p><b>Reading and viewing</b></p> <p>Using the text, The Most Boring Street in the World from The School Magazine, students answer the following questions in their student workbook.</p> <p>Who is telling the story? How do you know?</p> <p>Students complete activity on 'first and third person narration' (focus on pronouns) in their student workbook.</p>	<p><a href="#">Resource 3- The Most Boring Street in the World (online)</a></p> <p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>
<p><b>Writing and representing</b></p> <p>Rewrite – written task</p> <p><b>Success Criteria:</b></p> <ul style="list-style-type: none"> <li>• understands character change as a result of events in the text</li> <li>• adapts an imaginative text by changing aspects of the story</li> <li>• uses first or third person narration, consistently in their writing.</li> </ul> <p>Students choose one part of the story to rewrite and add another character. This could be a sibling of Jade or Austin or another child that moves into the street.</p> <p>Students give this character one pertinent characteristic and think about how they will contribute to/impact the other characters in the story.</p> <p>Students choose to keep the narration in third person or change to first person.</p>	<p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students reflect on the following questions in their student workbook.</p> <p>How could the addition of a simple character contribute to the story? When you write a narrative, which author voice do you often use? Do you experiment with using other voices? Why/why not?</p>	<p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>

## Lesson 4 – part 1

During this lesson you will learn to:

- understand that characters may change as a result of events
- create new texts by thinking creatively and imaginatively
- recognise and use first and third person narration.

### 4.1 Speaking and listening

- Choose an object from your home and turn it into a character.
- Give the character humorous characteristics.
- Describe the character to an adult.

### 4.2 First and third person narration

Reread the text, [The Most Boring Street in the World](#) from The School Magazine.

Who is telling the story?

How do you know?

You can tell whether the story is written in first or third person narration by identifying the use of different nouns and pronouns.

Pronouns are words used to replace nouns in a sentence. For example-

First person: I ran to the letterbox as fast as I could.

Third person: She ran to the letterbox as fast as she could.

Billy ran to the letterbox as fast as he could.

Complete the table of first and third person narration:

Narration	
First person	Third person
<b>I was in the mood to go for a swim.</b>	She was in the mood to go for a swim.
	He was so happy to have spotted a dolphin from the boat.
<b>I couldn't believe my eyes when I opened the door to the castle.</b>	
	Amber danced to the song playing on the radio.
<b>I savoured the sweet taste of the ice block on the sweltering hot afternoon.</b>	

### 4.3.1 Rewrite

Reread the text, [The Most Boring Street in the World](#) from The School Magazine.

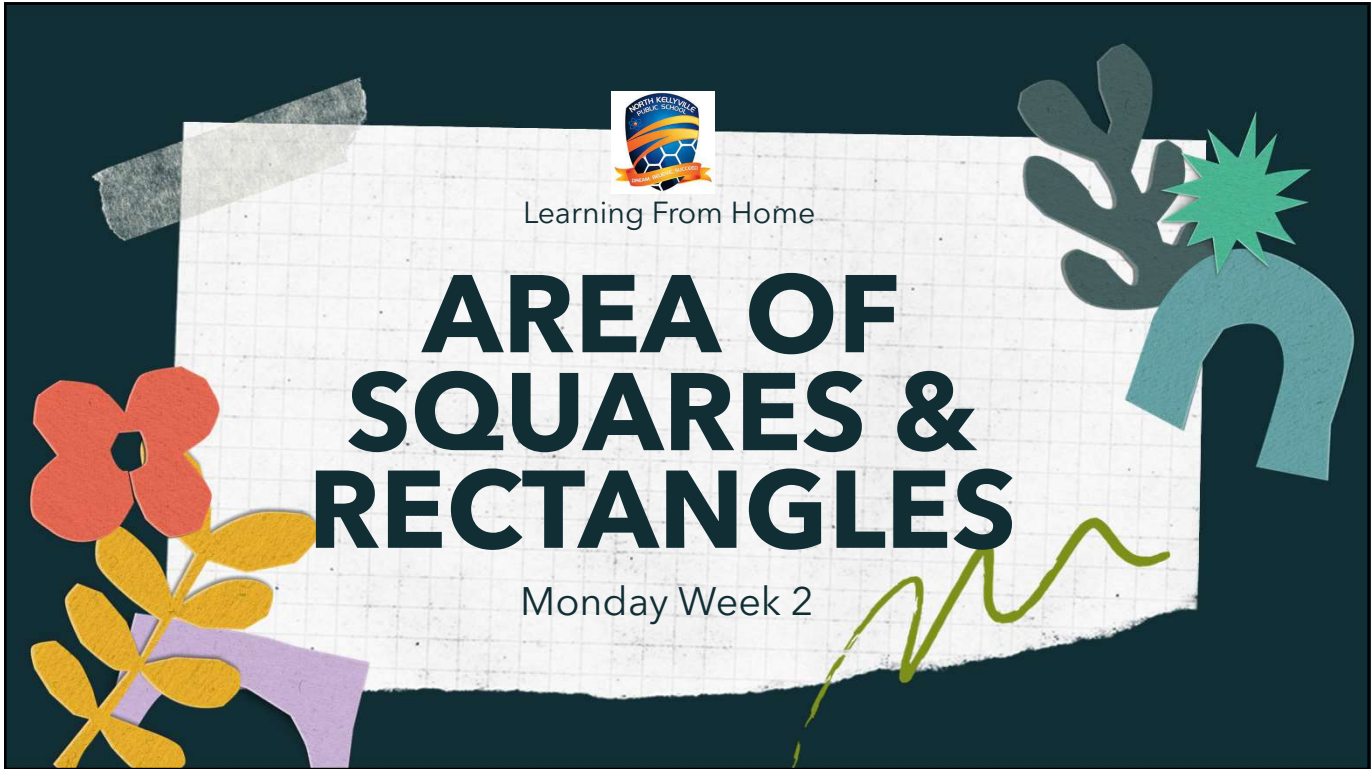
Choose one part of the story to rewrite and add another character. This could be a sibling of Jade or Austin or another child that moves into the street.

Give this character one pertinent characteristic and think about how they will contribute to and impact the other characters in the story.

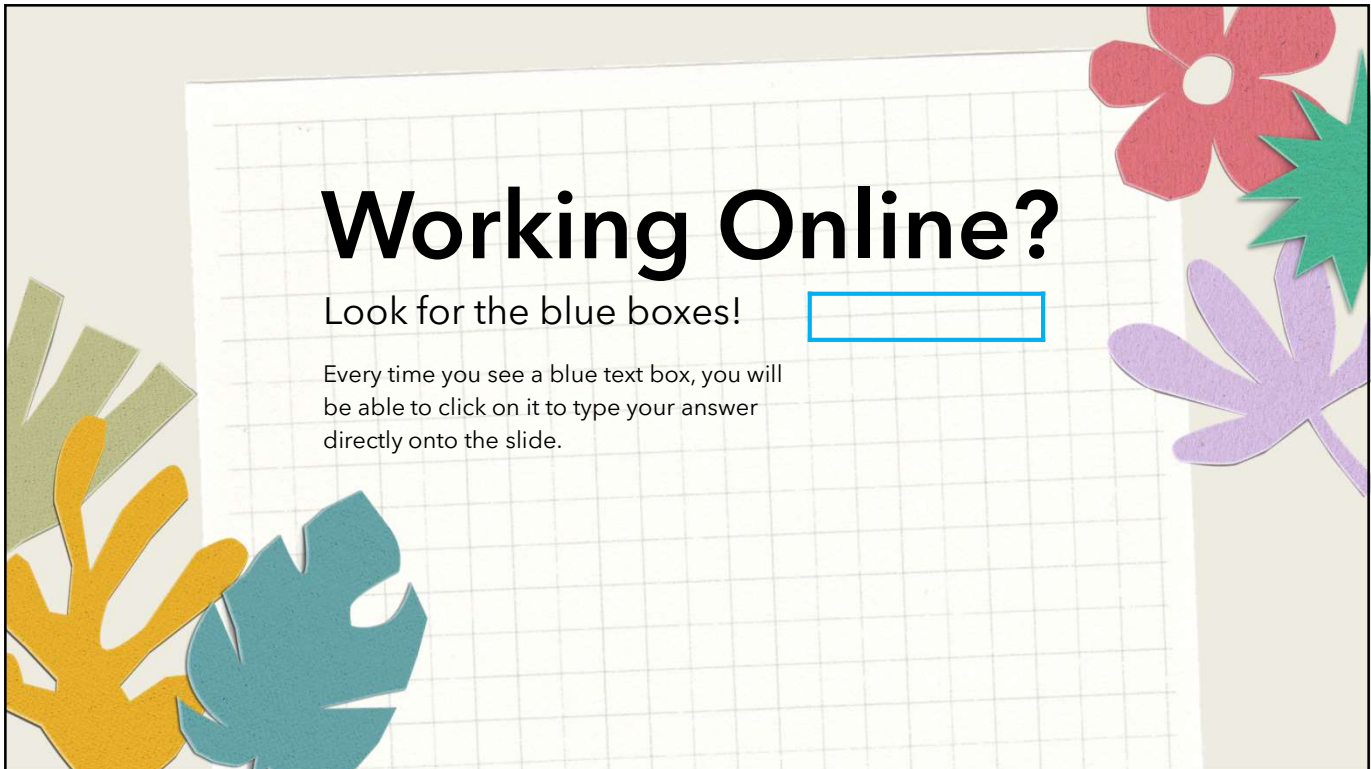
You may choose to keep the narration in third person or change to first person.

Start writing on the next page.





1



2

# Learning Intention

We are learning to find the area of squares and rectangles.

# Success Criteria

- Express area in square units.
- Identify the length and width of squares and rectangles.
- Use the formula **a = length x width** to find the area of squares and rectangles.

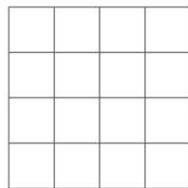
3

Area is the amount of space a shape covers. It is a 2D measurement.

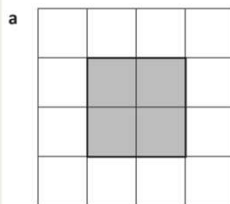
We measure area in square units. For small areas we use square centimetres.



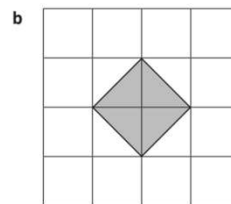
1 Shade the grid to show a rectangle with the area of 6 cm<sup>2</sup>.



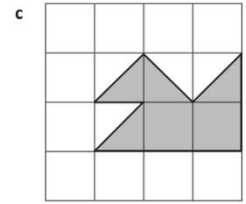
What is the area of each shaded shape?  
Each square in the grid has an area of 1 cm<sup>2</sup>.



area =  cm<sup>2</sup>



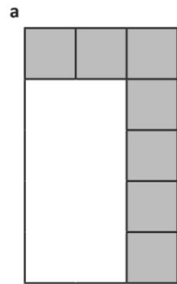
area =  cm<sup>2</sup>



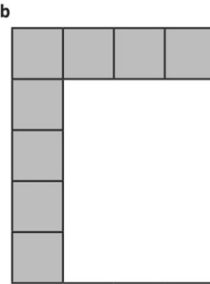
area =  cm<sup>2</sup>

4

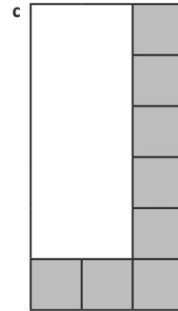
What is the area of each rectangle? Each square in the grid has an area of  $1 \text{ cm}^2$ .  
Some of the squares have been marked in for you.



area =   $\text{cm}^2$



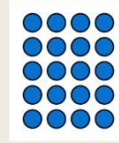
area =   $\text{cm}^2$



area =   $\text{cm}^2$

Did you need to see all the squares to work out the area?

Area is all about **MULTIPLICATION**.  
We can think of the square units inside  
each shape as a type of array.

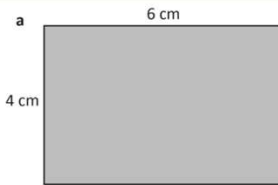
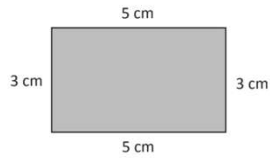


5

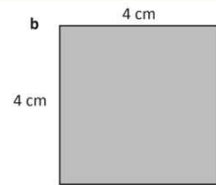
We can use this formula to  
find the area of rectangles:

$$\text{Area} = \text{length} \times \text{width}$$

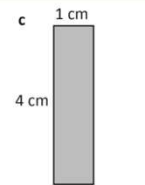
$$\text{Area} = 3 \times 5 = 15 \text{ cm}^2$$



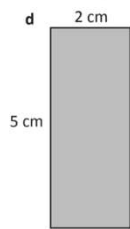
area =   $\text{cm}^2$



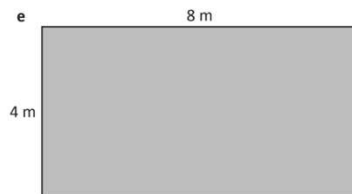
area =   $\text{cm}^2$



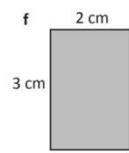
area =   $\text{cm}^2$



area =   $\text{cm}^2$



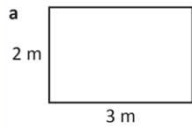
area =   $\text{m}^2$



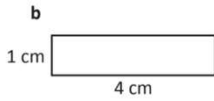
area =   $\text{cm}^2$

6

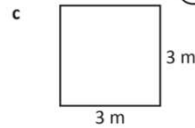
Use the formula  $A = L \times W$  to help you find the areas\* of:



$A = \boxed{\phantom{00}} \text{ m}^2$



$A = \boxed{\phantom{00}} \text{ cm}^2$



$A = \boxed{\phantom{00}} \text{ m}^2$

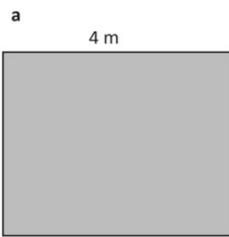
\*Not drawn to scale.

This saves us from ruling up grids and counting squares.

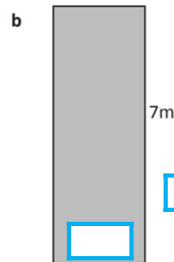


7

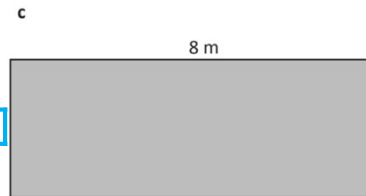
5 In these shapes you know the area but not the length of all the sides. Label the missing sides:



area =   $20 \text{ m}^2$



area =   $14 \text{ m}^2$



area =   $24 \text{ m}^2$

Don't forget to include the unit of measurement!

8



Find the area of the following:

a A rectangle measuring  $8\text{ cm} \times 5\text{ cm}$

b A box measuring  $30\text{ cm} \times 7\text{ cm}$

c A pool measuring  $25\text{ m} \times 10\text{ m}$

d A phone measuring  $4.5\text{ cm} \times 10\text{ cm}$

e A book measuring  $35\text{ cm} \times 12\text{ cm}$

f A field measuring  $60\text{ m} \times 25\text{ m}$

g A town square with 4 sides of  $10\text{ m}$

h A rug measuring  $10.2\text{ m} \times 3.4\text{ m}$

9

Answer these area word problems:

a Marianne wants to buy new carpet for her bedroom. Her room is  $3\text{ m} \times 4\text{ m}$  and the carpet she wants costs  $\$50$  per  $\text{m}^2$ . How much will the new carpet cost her?

b A book is  $12\text{ cm}$  longer than it is wide. If it is  $10\text{ cm}$  wide, what is the area of the book?

c A garden has an area of  $35\text{ m}^2$ . If the garden is  $7\text{ m}$  long, what is its width?

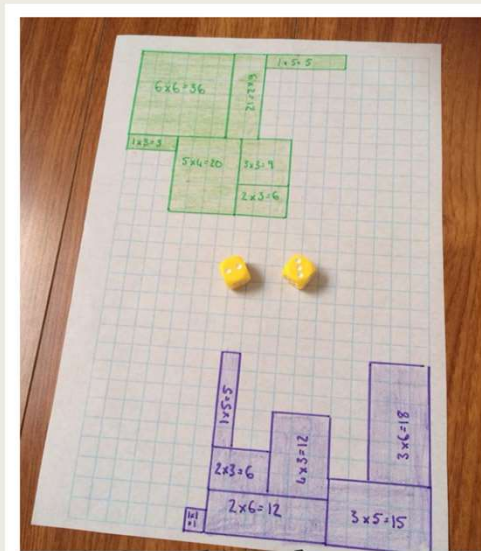
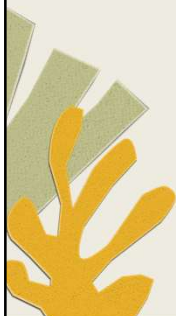
d The area of a rectangle is  $48\text{ cm}^2$ . What might be the length and width?  
Come up with 2 options:

Option 1 L =  W =

Option 2 L =  W =

10

Have a go at this game with a family member. The grid is on the next slide - you can either print it or use the drawing tools to shade each shape. If you don't have 2 dice at home, use Google dice online 😊



Each player uses a different colour.

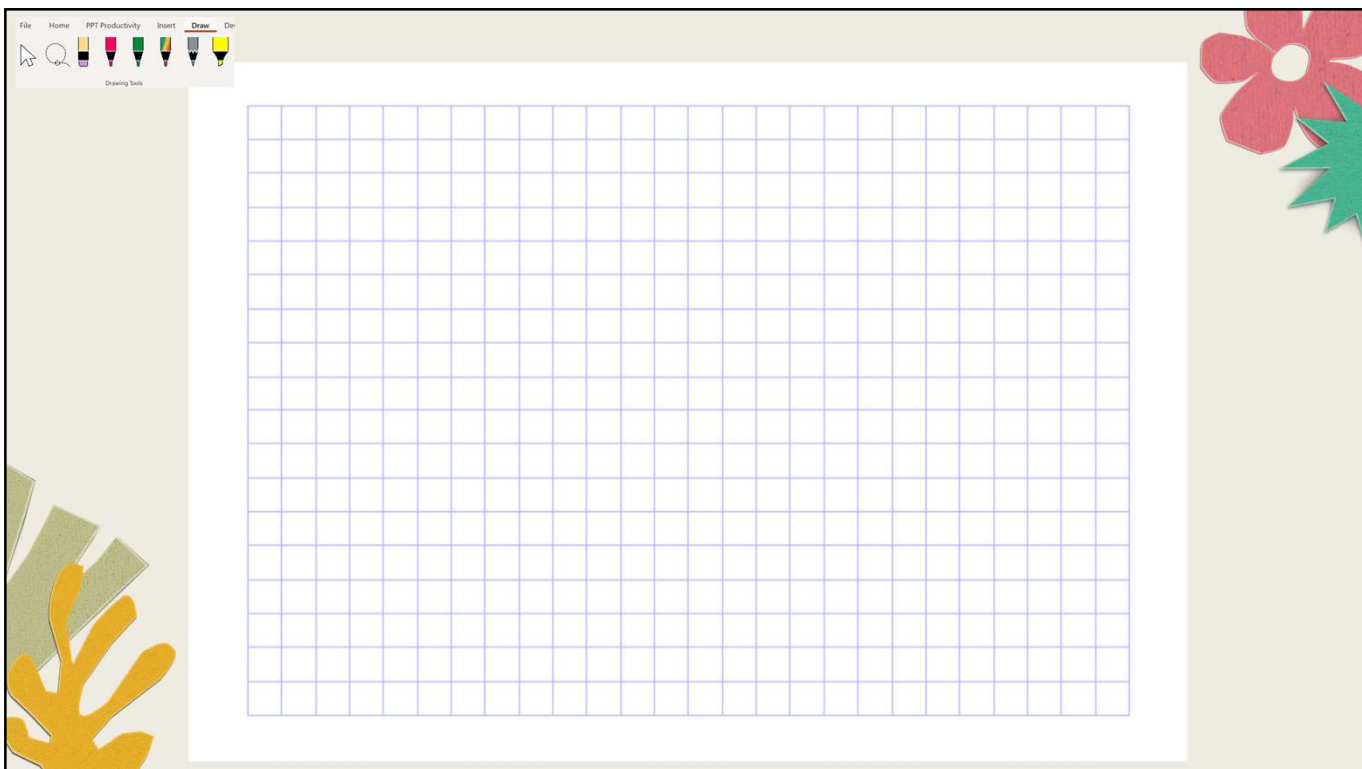
Roll 2 dice to represent the length and width of a square or rectangle.

Draw your shape on the grid, making sure each new shape is touching a previous one.

Keep a tally of the total area of your shapes as you go.

If you can't find space to draw your array, you lose a turn.

Once the board is completely full, the winner is the player with the most squares coloured.



# TUESDAY

12th October 2021



## Lesson 4 – part 2

### 4.3.2 Edit and Rewrite

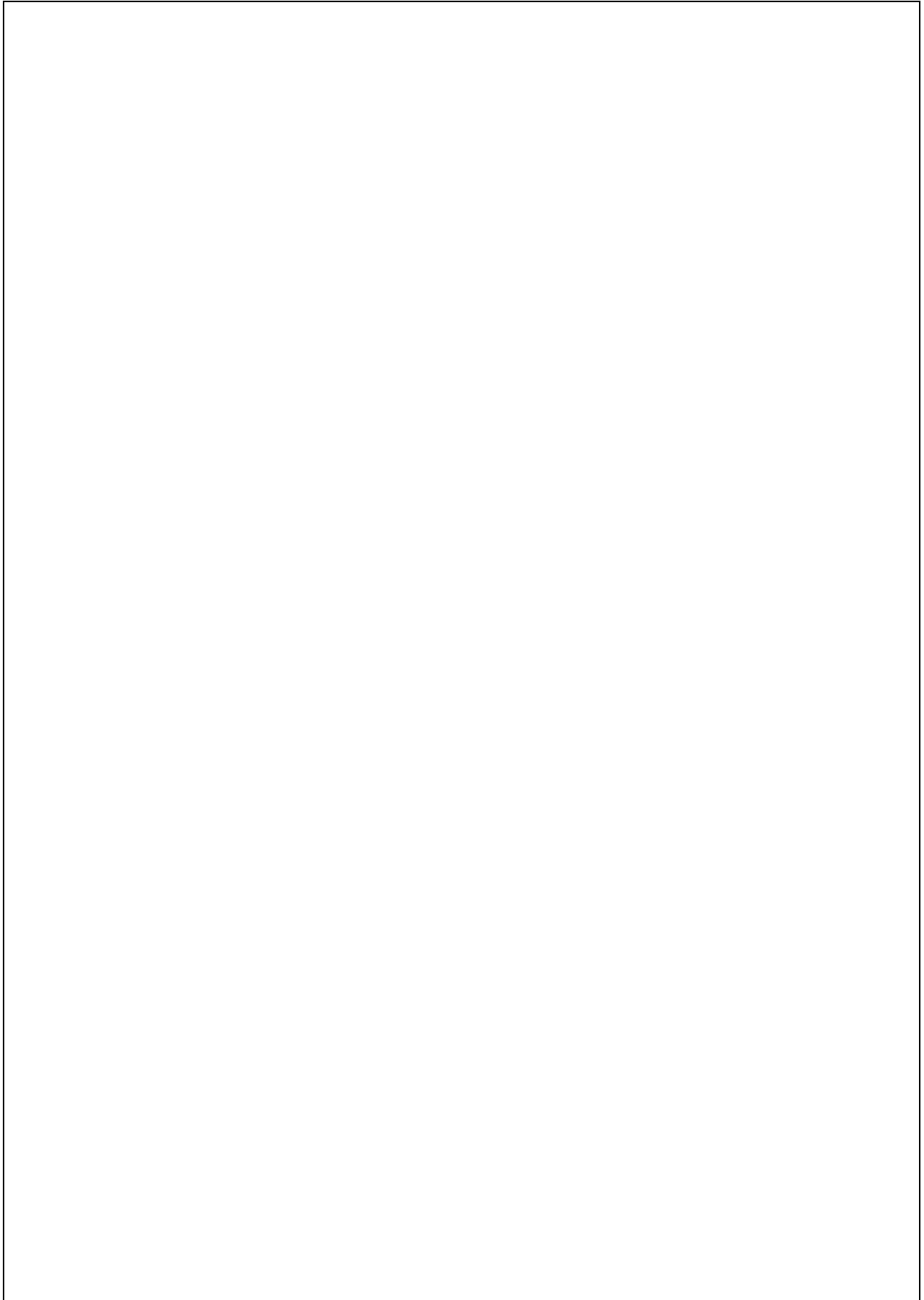
Reflecting on yesterday's 'Rewrite' task, review your writing and analyse its strengths and areas for improvement, using the table below.

Then, rewrite it again, making improvements based on your analysis and any feedback given by your teacher and/or adult at home.

Rewrite Analysis	
<b>Writing Elements</b>	How did I do? Write a comment below
<b>Spelling – any words look/sound incorrect?</b>	
<b>Punctuation – used accurately and purposefully?</b>	
<b>Grammar/parts of speech – used correctly?</b>	
<b>Sentence Structure – do they all make sense?</b>	
<b>Paragraphs – did I use them? How well?</b>	
<b>Cohesion – does it flow nicely and make sense overall?</b>	

Now apply this analysis and any other feedback to rewrite your first rewrite, on the next page.

## Rewrite – version 2

A large, empty rectangular box with a thin black border, occupying most of the page. It is intended for the student to write their response to the 'Rewrite' task.

## 4.4 Reflection – Voices

How could the addition of a simple character contribute to the story?

When you write a narrative, which author voice do you often use?

Do you experiment with using other voices? Why/why not?



Learning From Home

# AREA OF TRIANGLES

Tuesday Week 2

1

## Working Online?

Look for the blue boxes!



Every time you see a blue text box, you will be able to click on it to type your answer directly onto the slide.

2

## Learning Intention

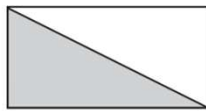
We are learning to find the area of triangles.

## Success Criteria

- ❑ Recognise that a triangle forms half a rectangle.
- ❑ Identify the base and perpendicular height within triangle diagrams.
- ❑ Use the formula  **$a = \frac{1}{2} \text{ base} \times \text{height}$**  to find the area of a triangle.

3

Each triangle is half of a rectangle.  
To find the area of a triangle,  
we find the area of the rectangle  
and then divide by two.



$$\text{Rectangle} = 8 \text{ cm} \times 4 \text{ cm} = 32 \text{ cm}^2$$

$$\text{Triangle} = 32 \text{ cm}^2 \div 2 = 16 \text{ cm}^2$$

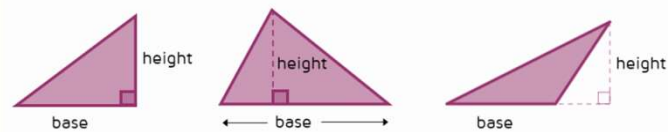
The formula for this is:

$$\frac{1}{2} \text{ Base} \times \text{Height}$$

1. We need to measure the **base** and the **height**, then multiply them together.
2. Then we simply **halve our answer** to find the area of the triangle.

This is called the **perpendicular height** of the triangle.

The base and height form a  $90^\circ$  angle.

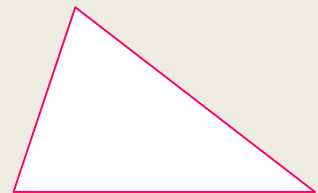
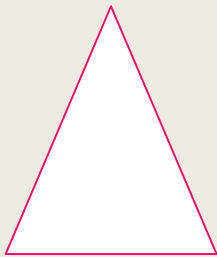


4



Use the line tool or drawing tools to show the **perpendicular height** of these triangles.

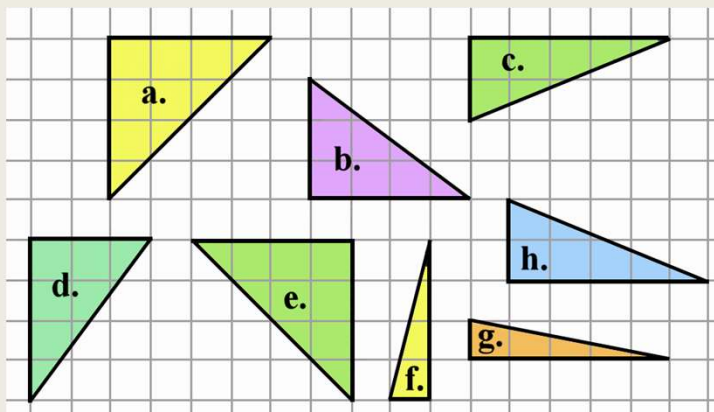
Remember - it needs to form a  $90^\circ$  angle with the base.



5

Each square on this grid is  $1\text{cm}^2$ .

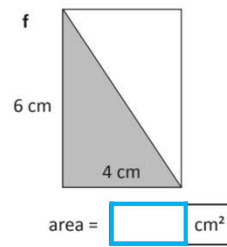
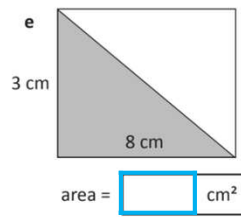
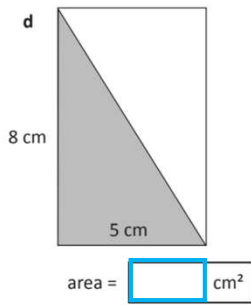
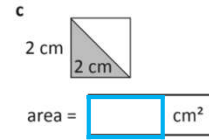
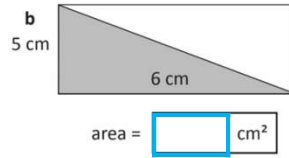
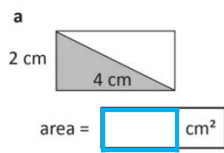
Find the area of each triangle.



a		$\text{cm}^2$
b		$\text{cm}^2$
c		$\text{cm}^2$
d		$\text{cm}^2$
e		$\text{cm}^2$
f		$\text{cm}^2$
g		$\text{cm}^2$
h		$\text{cm}^2$

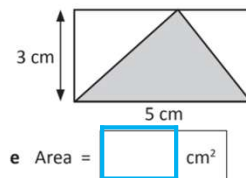
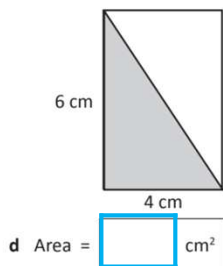
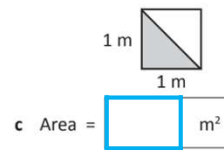
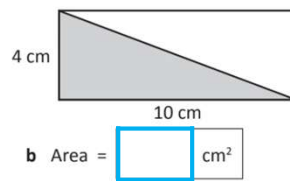
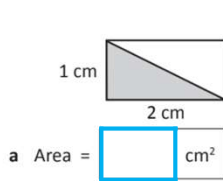
6

1 Find the area of the shaded triangles inside the rectangles.



7

Find the area of the shaded triangles inside the rectangles\*:



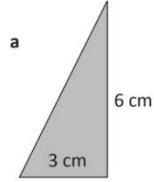
This works for all triangles – right angled, isosceles, equilateral and scalene. One formula fits all!



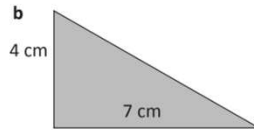
\*Not drawn to scale.

8

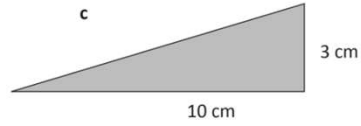
2 Find the area of the shaded triangles inside the rectangles.



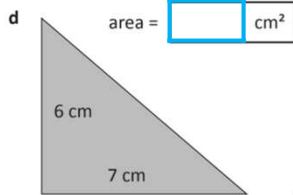
area =  cm<sup>2</sup>



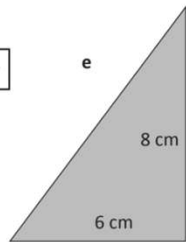
area =  cm<sup>2</sup>



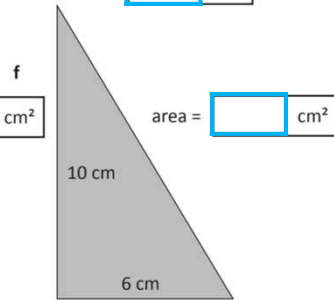
area =  cm<sup>2</sup>



area =  cm<sup>2</sup>



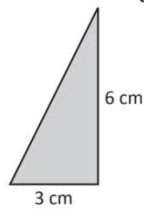
area =  cm<sup>2</sup>



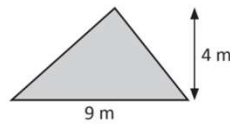
area =  cm<sup>2</sup>

9

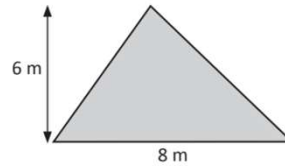
Find the area of these triangles\* using the formula  $\frac{1}{2} \times \text{Base} \times \text{Height}$ :



Area =  cm<sup>2</sup>



Area =  cm<sup>2</sup>



Area =  m<sup>2</sup>

d A triangle with a base of 12 cm and height of 7 cm

e A triangle with a base of 17 m and a height of 14 m

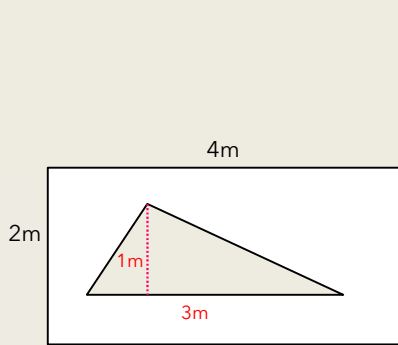
f A triangle with a base of 10.2 m and a height of 9 m

\*Not drawn to scale.

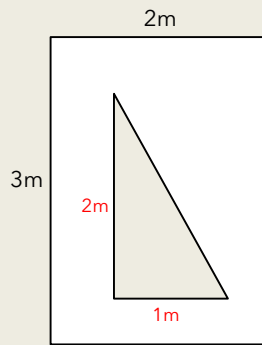
10

Each of these rectangular walls has a triangular window cut out of it. I would like to paint each wall, but I'm not sure how much paint I will need.

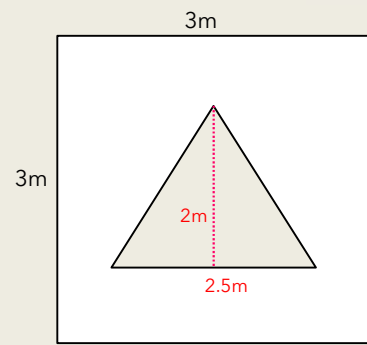
Can you work out the area of each wall that will need to be painted?



Area =  m<sup>2</sup>



Area =  m<sup>2</sup>



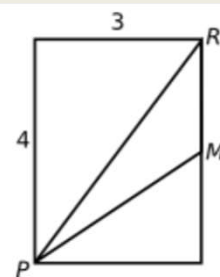
Area =  m<sup>2</sup>

11

**Mid-point area**

*M* is the midpoint of the side of the rectangle.

What is the area (in square units) of the triangle *PMR*?



Area =  square units

12

# Learning From Home

## Take-home Pack



# WEDNESDAY

13th October 2021

Teachers off-line 12-3pm

**Complete the following tasks:**

**English:** Grammar lesson; read a book

**Maths:** Maths Investigation

*If you can access a web-enabled device today,  
then also complete:*

**Any unfinished Teams Assignments**

**Reading Eggs:** 2 map lessons & any  
assignments

**Mathletics:** minimum 5 assigned activities

# W2: Speech and Dialogue

Speaker in the middle AND speakers with action.

## Activity 1

Using the Speaker **AT THE END**, what could these people be saying?  
For each picture, you only need to have ONE person speaking.

Eg: "What are we having for dinner Dad?" asked **Laura**.



## Activity 2

Using the speaker at the **START**, what could these people be saying?

Eg: **Conner** asked, "Why can't I go outside?"

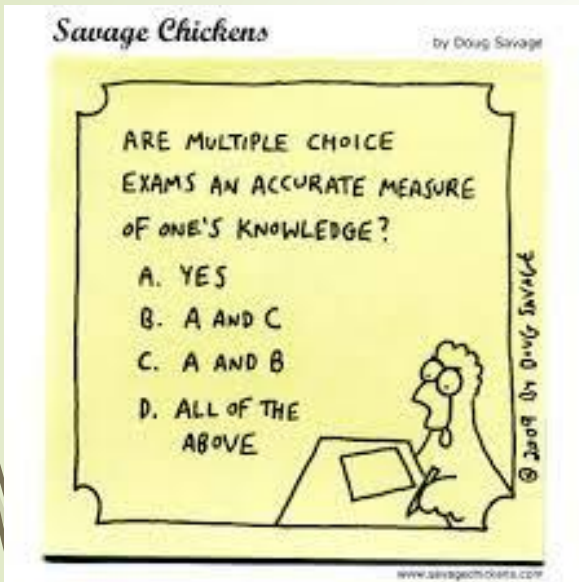


## How to punctuate speech – Speaker in the middle

- A speech mark always signals the start and end of a person speaking. Anything in between them is what the character will say out loud.
- When the speaker is in the middle, we apply rules from both (the end and the start).
  - "Hey Yasna," called Eshaan, "wait up."
  - "I like chocolate," explained Samantha, "Do you like chocolate too?"
- You will notice that in the second speech section, it does not always start with a capital letter. This is a tricky rule. If it is part of the same sentence, you **DON'T NEED** a new capital letter (but you could still use it).
- If it is a new sentence for the speaker, you do need a new capital letter. Figure out what you want to do, and stick with it.



## Activity 3



- Write 3 sentences with the speaker in the middle. PAY ATTENTION to the punctuation.
  - "Well then," said the teacher, her lip curling, "Which one of you did it?"
  - "The first one," explained Dan, sure of himself, "Definitely A."



## Adding information to your speakers

- It is important to do two things when writing dialogue and speech
  - Avoid using 'said' all the time
  - Don't overuse 'said' alternatives.
- When you write dialogue, you need to try to incorporate action throughout. This way the reader will see it playing like a movie, right in front of them.
  - On your next activity, you will need to write direct speech and add an action for your character as well.





# Activity 4

- Write 3-5 sentences of dialogue, ensuring your characters have an action to go along with it.
- Examples:
  - "I told you I don't like broccoli Mum!" exclaimed Danika, crossing her arms.
  - "I saw him Miss," said Eric, twisting to point towards the canteen, "He ran that way."
  - Standing up in excitement, Rayana said, "Yes that's it!"



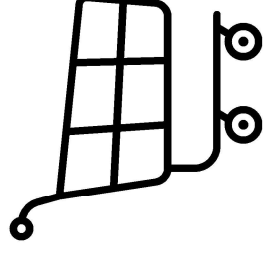
# MATHS INVESTIGATION

## APPLY KNOWLEDGE AND UNDERSTANDING

addition | subtraction | money | decimals

Find 10 items in your pantry or fridge that have been purchased recently from the shops. Use these items to demonstrate the following skills:

- Use the internet to research the cost of each item
- Record the cost of each item to two decimal places in a table
- Research each item again to find a cheaper price and add these prices to the table
- Calculate the difference in cost for all items
- Calculate the total costs and money saved



*What other skills can you demonstrate?*

# THURSDAY

## 14th October 2021



## Lesson 5 – Character personification

Students are learning to:

- understand, interpret and experiment with personification
- select appropriate language for a purpose.

Learning experience	Resources
<p><b>Speaking and Listening</b></p> <p>Using third person, students describe themselves in detail to an adult as if they were a character from a story or movie.</p>	
<p><b>Reading and Viewing</b></p> <p>Students use the poem, 'Rodent Rodeo' from The School Magazine.</p> <p>Using the image of the rat, students describe the features that are human like, using adjectives and descriptive language.</p> <p>Explain to students that this is called personification. Students to view the video about personification.</p> <p>Students read the poem and answer the questions:</p> <p>How has the author personified the rat?</p> <p>Why has the author chosen a rat to be given human characteristics?</p> <p>Students complete 'personification' activity in student workbook.</p>	<p><a href="#">Resource 4- Rodent Rodeo (online)</a></p> <p><a href="#">Resource 5 – Personification video</a></p>
<p><b>Writing and Representing</b></p> <p>Students choose an animal or an object and imagine it is going to an event or engaging in a human activity of their choice.</p> <p>Illustrate the character in the centre of the page in the student workbook on the 'engaging in human activity' page.</p> <p>Students brainstorm and describe human features and what it will need for the event or activity around the illustration.</p>	<p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students reflect on the following question with an adult or with their class online.</p> <p>Is personification an effective characterisation strategy to create an emotional response in the reader? Why/why not?</p>	

## Lesson 5

During this lesson you will learn to:

- understand, interpret and experiment with personification
- select appropriate language for a purpose.

### 5.1 Speaking and listening

Using third person, students describe themselves in detail to an adult as if they were a character from a story or movie.

### 5.2 Personification

Read the poem, '[Rodent Rodeo](#)' from The School Magazine.

Using the image of the rat, describe the features that are human like, using adjectives and descriptive language.

Personification is when you give an animal or object qualities or abilities that only a human can have.

Here's a reminder of what personification means:

**Personification**

Personification is when you give human qualities and human characteristics to an object, animal or idea.

**melloo**  
©2017 www.melloo.co.uk

How has the author personified the rat? What human like qualities does he have?

Why has the author chosen a rat to be given human characteristics?

### 5.3 Engaging in human activity

Choose an animal or an object and imagine it is going to an event or engaging in a human activity of their choice.

Illustrate the character in the centre of the page.

Brainstorm and describe human features and what it will need for the event or activity around the illustration.

### 5.4 Reflection

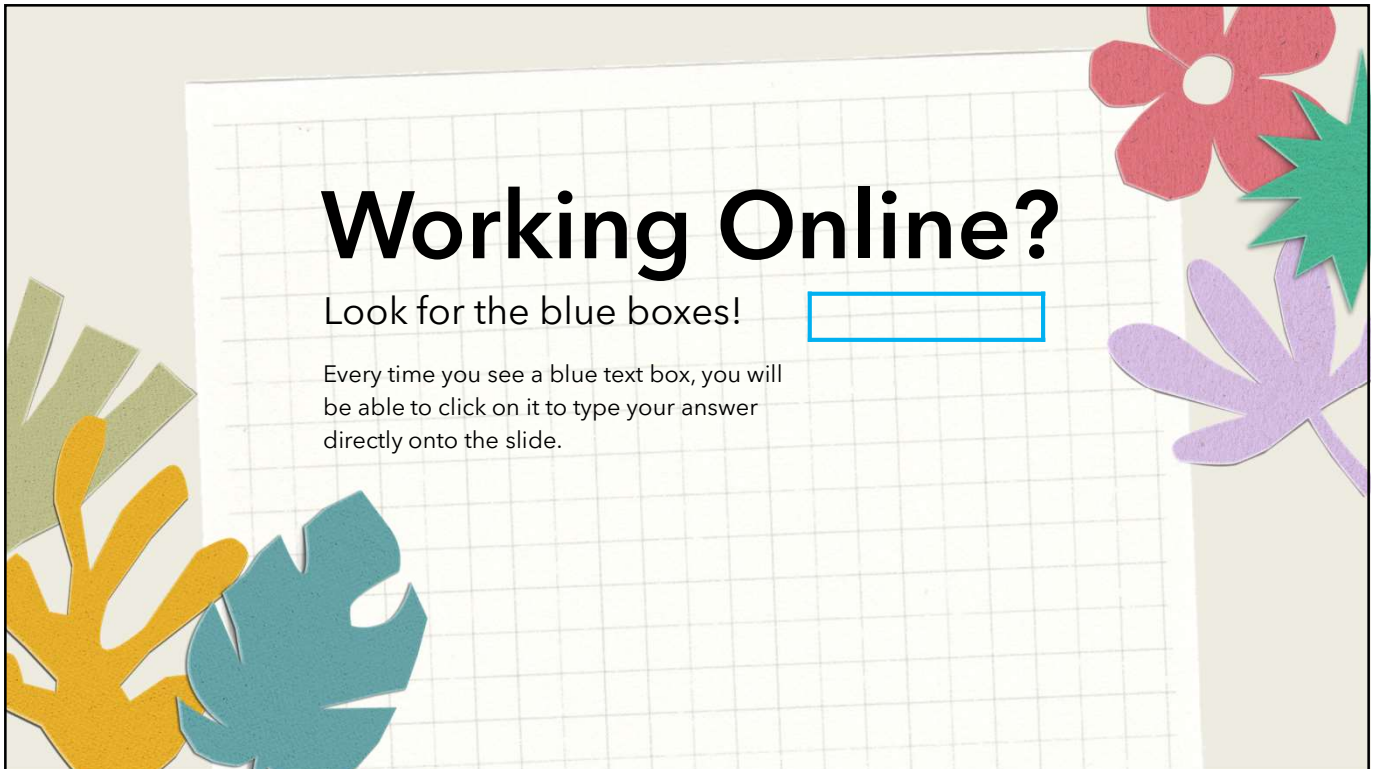
Discuss an adult or with your class online:

Is personification an effective characterisation strategy to create an emotional response in the reader?

Why/why not?



1



2

## Learning Intention

We are learning to find the area of composite shapes.

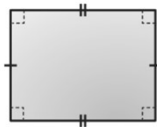
## Success Criteria

- ❑ Recognise individual shapes within composite shapes.
- ❑ Use known area formulae to find the area of each part of a composite shape.

3

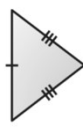
## What are composite shapes?

When common shapes are put together, the new shape made is called a composite shape.



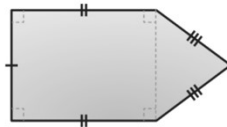
Common shape  
(Rectangle)

+



Common shape  
(Isosceles triangle)

=



Composite shape  
(Rectangle + Isosceles triangle)



Composite just means  
it is made by putting  
together separate parts

Not all shapes are regular triangles or rectangles. We have to find ways to measure the areas of composite and other irregular shapes as well.

One way is to break the shape into known shapes, find these areas, and then add them together.

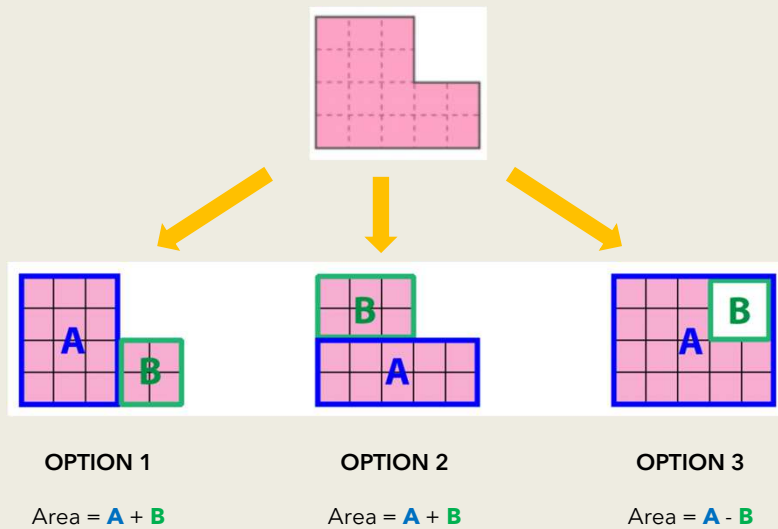


Our goal is to split composite shapes back into separate **squares, rectangles or triangles** so we can use the area formulae we already know.

4



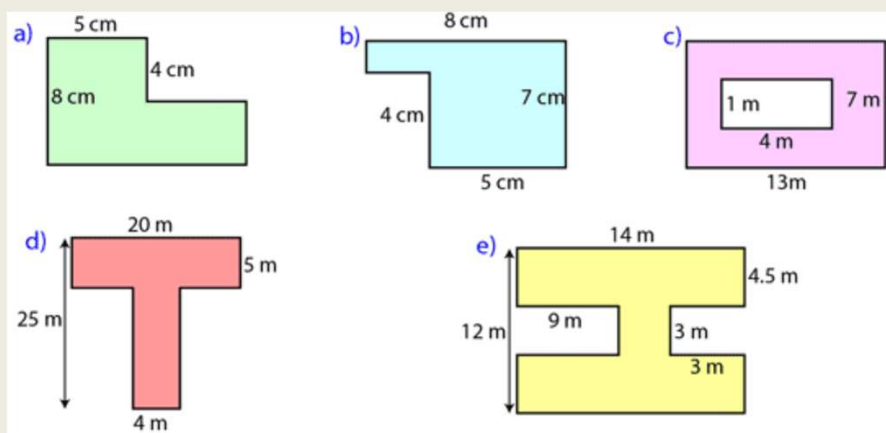
There are many different ways to break up composite shapes. Let's have a look at 3 different approaches.



With option 3, we find what the area of the rectangle would have been if the corner had not been removed. Then we subtract the area of the missing corner.

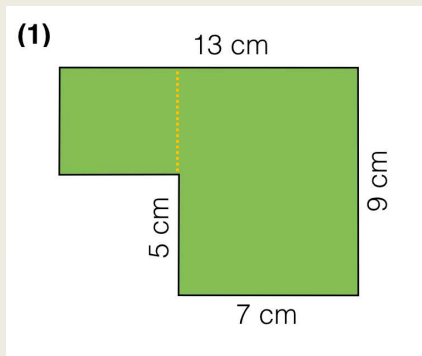
5

**Draw lines** to show how you would **break up** these composite shapes to make finding the area easier.



6

What do we do if one of our dimensions is not labelled with a measurement?



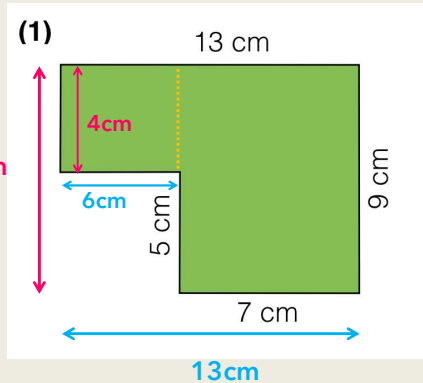
We can find the size of the **larger rectangle**, because its length and width are labelled.

$$9\text{cm} \times 7\text{cm} = 63\text{cm}^2$$

But the **smaller rectangle** doesn't have its own separate length and width measurements.

**What can we do?**

7



#### STEP ONE

We can see that the full length of the shape is 9cm, so the full length on the opposite side will also be 9cm.

We can work out the length of the small rectangle by subtracting the 5cm measurement from 9cm.

$$9\text{cm} - 5\text{cm} = 4\text{cm}$$

#### STEP TWO

We can see that the full width of the shape is 13cm, so the full width on the opposite side will also be 13cm.

We can work out the width of the small rectangle by subtracting the 7cm measurement from 13cm.

$$13\text{cm} - 7\text{cm} = 6\text{cm}$$

#### STEP THREE

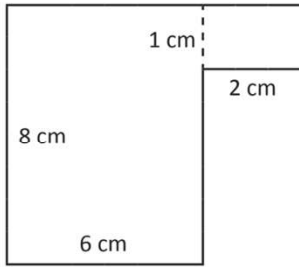
Smaller rectangle =  $4\text{cm} \times 6\text{cm} = 24\text{cm}^2$

Larger rectangle =  $9\text{cm} \times 7\text{cm} = 63\text{cm}^2$

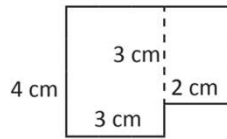
Total area =  $24\text{cm}^2 + 63\text{cm}^2 = 87\text{cm}^2$

8

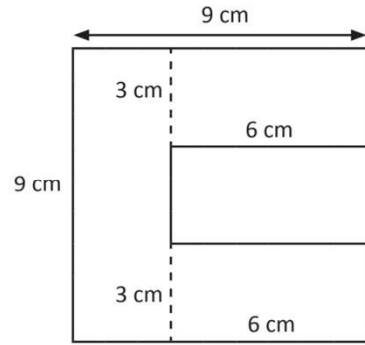
1 Can you find the areas of these rooms? Circle the room that would be cheapest to carpet.  
Put a cross in the room that would be most expensive.



a area =  cm<sup>2</sup>

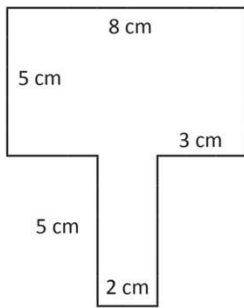


b area =  cm<sup>2</sup>

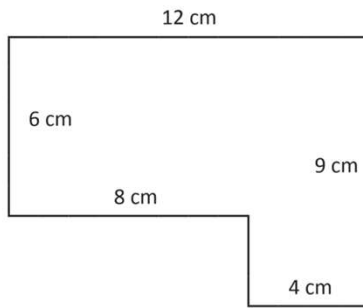


c area =  cm<sup>2</sup>

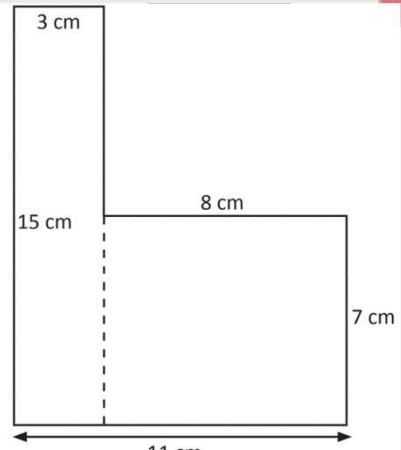
9



d area =  cm<sup>2</sup>



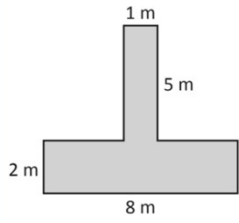
e area =  cm<sup>2</sup>



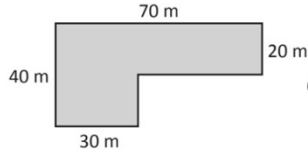
f area =  cm<sup>2</sup>

10

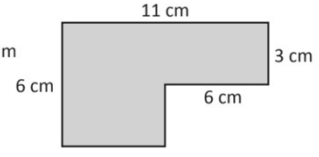
Find the area of these irregular shapes\*:



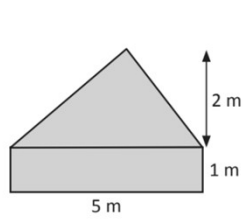
a  m<sup>2</sup>



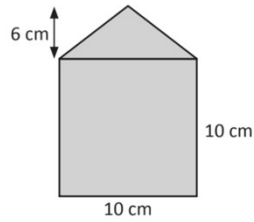
b  m<sup>2</sup>



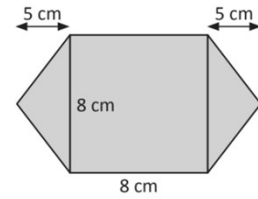
c  cm<sup>2</sup>



d  m<sup>2</sup>



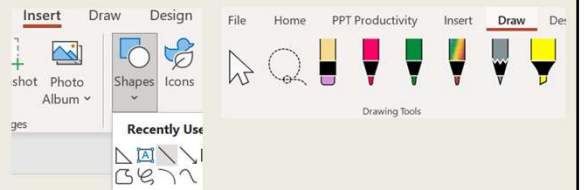
e  cm<sup>2</sup>



f  cm<sup>2</sup>

11

Draw a composite shape that has an area of 50 cm<sup>2</sup>.



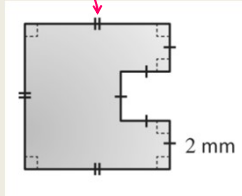
12

## Can you find the area of these tricky composite shapes?

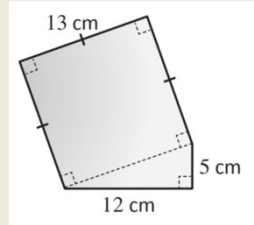
These strokes indicate equal side lengths.

All the sides with 2 strokes are equal to each other.

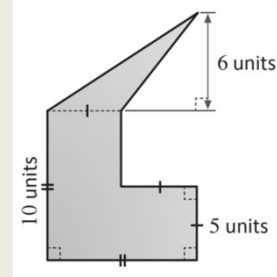
All the sides with 1 stroke are equal to each other.



Area =  mm<sup>2</sup>



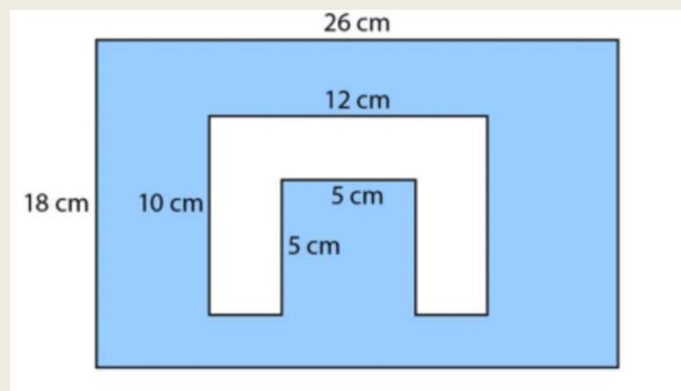
Area =  cm<sup>2</sup>



Area =  units<sup>2</sup>

13

## What is the area of the blue section of this shape?



Area =  cm<sup>2</sup>

14

# FRIDAY

15th October 2021



## Lesson 6 – Character personification continued

Students are learning to:

- understand, interpret and experiment with personification
- experiment with text structures and language features and their effects in creating literary texts.

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Students look for an insect outside and describe it to an adult giving it human characteristics - likes, dislikes, where it is going etc.</p>	
<p><b>Reading and viewing</b></p> <p>Ask students to reread the poem, Rodent Rodeo.</p> <p>The poem follows a very simple structure of listed personified items that the rat has gathered to attend the rodeo.</p> <p>Students complete 'structure of poem' activity in their student workbook.</p>	<p><a href="#">Resource 4 - Rodent Rodeo (online)</a></p> <p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Writing and representing</b></p> <p>Students use the character they developed in the previous lesson to write a poem, following the structure of the Rodent Rodeo poem.</p> <p>Students complete 'my poem' activity in the student workbook.</p>	<p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students discuss the following questions with an adult.</p> <p>What is personification? How does personification help me as a reader?</p> <p>How can using personification help me as a writer?</p> <p>Why do authors choose to personify objects/animals in texts?</p>	

## Lesson 6

During this lesson you will learn to:

- understand, interpret and experiment with personification
- experiment with text structures and language features

### 6.1 Speaking and listening

Students look for an insect outside and describe it to an adult giving it human characteristics - likes, dislikes, where it is going etc.

### 6.2 Structure of poem

Reread the poem, [Rodent Rodeo](#) from The School Magazine.

The poem follows a very simple structure of listed personified items that the rat has gathered to attend the rodeo.

Answer the following questions:

What do you notice about the structure of the poem?

Is the language complex or simple?

**Tick inside the box next to the correct response.**

Simple

OR

Complex

What were some personified items mentioned in the poem?



## 6.3 My poem

Reread the poem, [Rodent Rodeo](#) from The School Magazine.

Use the character you developed in the previous lesson to write a poem, following the structure of the Rodent Rodeo poem.

## 6.4 Reflection

Discuss with an adult or online:

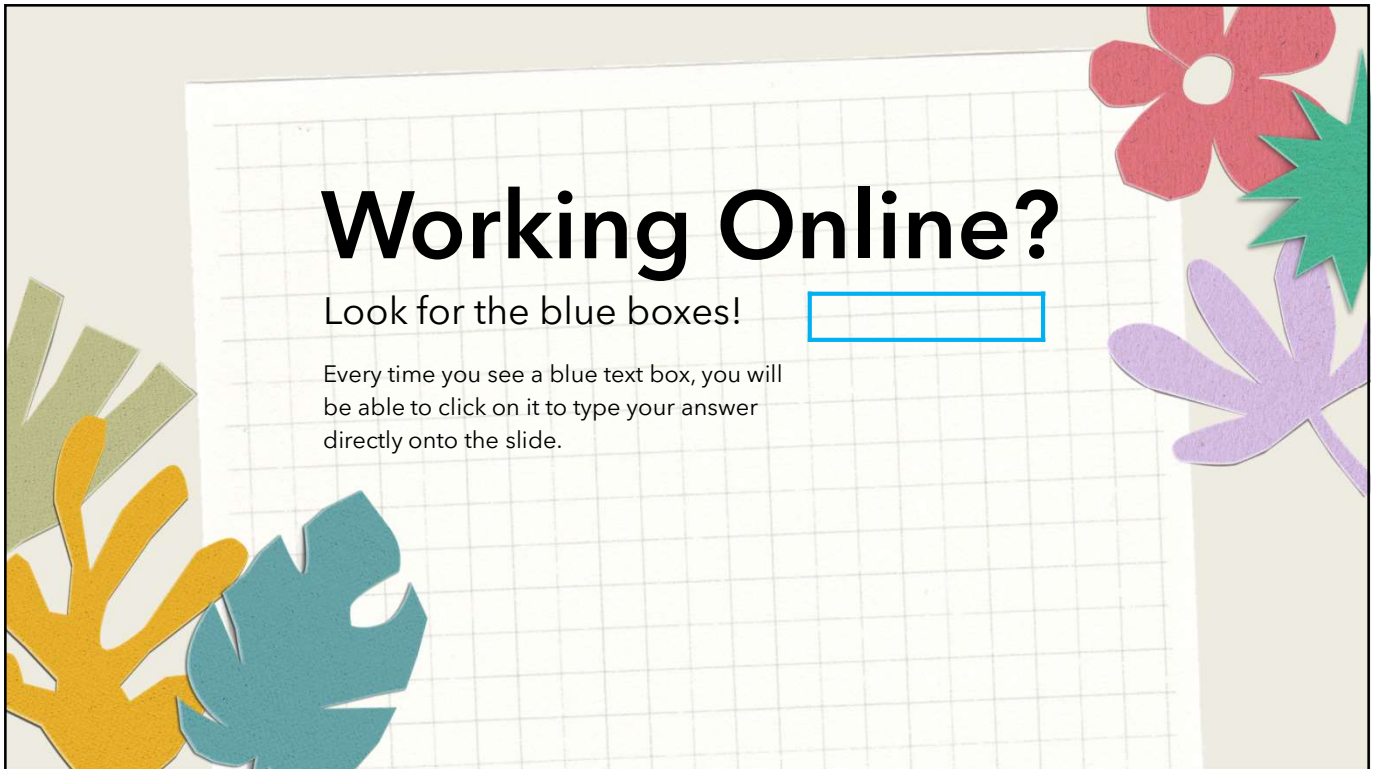
What is personification? How does personification help me as a reader?

How can using personification help me as a writer?

Why do authors choose to personify objects/animals in texts?



1



2

## Learning Intention

We are learning to find the surface area of 3D objects.

## Success Criteria

- ❑ Recognise that 3D objects are made up of 2D faces.
- ❑ Use known area formulae to find the area of each face within a 3D object.
- ❑ Find the surface area of a 3D object by combining the area measurements of all the faces.

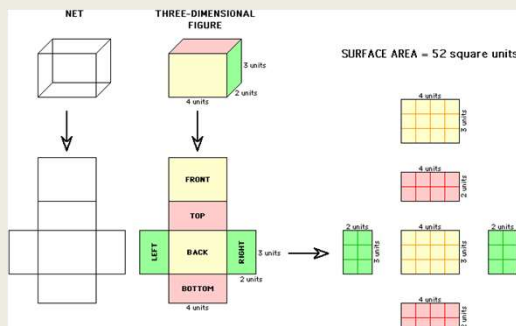
3

## What does surface area mean?

3D objects are made up of 2D faces. The area of each of these faces can be measured using the formulae we have learned this week.

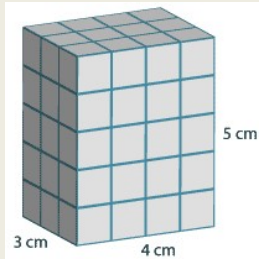
Once we find the area of each 2D face, we can add them all up to find the total **surface area** of the 3D object.

Look at the diagrams below. When we unfold a 3D object to show its net, we create a composite shape - like the ones we learned about yesterday!



4

# Let's look at an example



This rectangular prism has the following dimensions:

- Length 3cm
- Width 4cm
- Height 5cm

We will need to find the area of each of its **6 faces**.

LOOK FOR PATTERNS

Can you see any possible shortcuts here? Is there any repetition?

<b>FRONT</b>	<b>BACK</b>	<b>TOP</b>	<b>BOTTOM</b>	<b>LEFT</b>	<b>RIGHT</b>
$4\text{cm} \times 5\text{cm} = 20\text{cm}^2$	$4\text{cm} \times 5\text{cm} = 20\text{cm}^2$	$4\text{cm} \times 3\text{cm} = 12\text{cm}^2$	$4\text{cm} \times 3\text{cm} = 12\text{cm}^2$	$3\text{cm} \times 5\text{cm} = 15\text{cm}^2$	$3\text{cm} \times 5\text{cm} = 15\text{cm}^2$

**Total surface area =  $20 + 20 + 12 + 12 + 15 + 15 = 94\text{cm}^2$**

5

It can be helpful to think of a rectangular prism as **3 pairs of rectangular faces**.

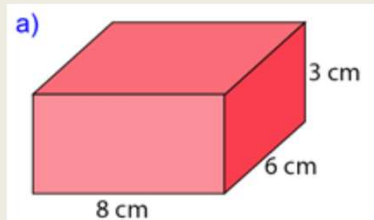
<b>Front &amp; Back</b>	<b>Top &amp; Bottom</b>	<b>Left &amp; Right</b>

The faces in each pair will have the **same area**.

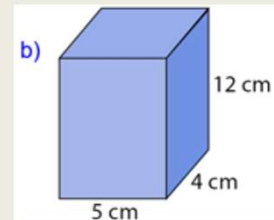
This means we only need to calculate the area of one face in each pair, then use this same measurement for the opposite face.

6

# Your turn!



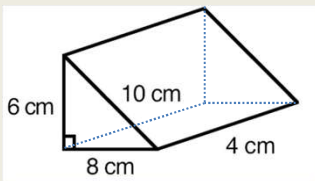
Front	
Back	
Top	
Bottom	
Left	
Right	
TOTAL	



Front	
Back	
Top	
Bottom	
Left	
Right	
TOTAL	

7

# How about triangular prisms?



This triangular prism has the following dimensions:

- Length 4cm
- Width 8cm
- Height 6cm

We will need to find the area of each of its **5 faces**.

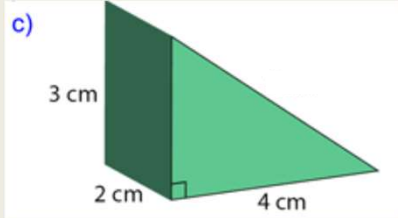
**REMEMBER**  
The area of a triangle is  $\frac{1}{2}$  base x height

<b>FRONT</b>	<b>BACK</b>	<b>BASE</b>	<b>LEFT SIDE</b>	<b>RIGHT SIDE</b>
$\frac{1}{2}$ of $(6\text{ cm} \times 8\text{ cm})$ = $24\text{ cm}^2$	$\frac{1}{2}$ of $(6\text{ cm} \times 8\text{ cm})$ = $24\text{ cm}^2$	$8\text{ cm} \times 4\text{ cm}$ = $32\text{ cm}^2$	$6\text{ cm} \times 4\text{ cm}$ = $24\text{ cm}^2$	$10\text{ cm} \times 4\text{ cm}$ = $40\text{ cm}^2$

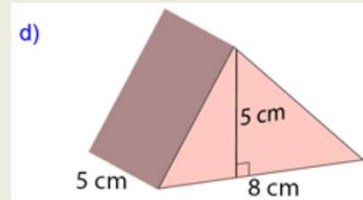
**Total surface area =  $24 + 24 + 32 + 24 + 40 = 144\text{ cm}^2$**

8

# Your turn!



Front	
Back	
Base	
Left Side	
Right Side	
TOTAL	

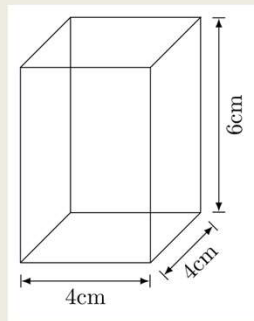


Front	
Back	
Base	
Left Side	
Right Side	
TOTAL	

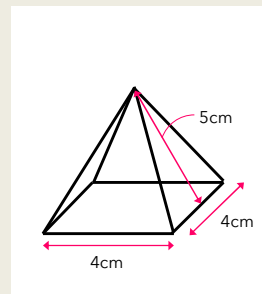
9

# Try these...

We will use these answers for a final challenge on the next slide!



Front	
Back	
Top	
Bottom	
Left	
Right	
TOTAL	

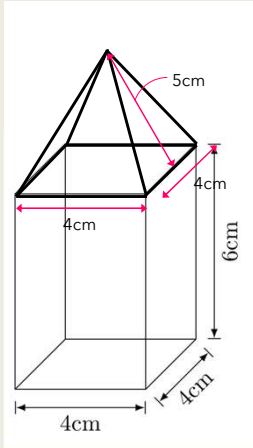


Base	
Front	
Back	
Left Side	
Right Side	
TOTAL	

10

# Final challenge!

What if we glued the square pyramid on top of the rectangular prism?



SpongeBob thinks the surface area of the new object can be found by adding together the surface area of the pyramid and prism.

**Explain why he is wrong.**



What would be the correct surface area of the new object?

# Finished?

✓ 01 Check your answers carefully.

✓ 02 Complete any assigned Mathematics tasks.

✓ 03 Work on this week's Maths Investigation.



# WEEK 3

## English



# RESOURCES



# METAPHORS AND SIMILES

## WHAT'S THE DIFFERENCE?

Metaphors and similes both help the reader understand a subject by comparing it to something else. But, they are different...

### METAPHOR

### SIMILE

A comparison between two things that are *not alike* and replaces the word with another word.

#### DEFINITION

A comparison between two things that are *not alike* and replaces the word with another word **AND** uses the word *like* or *as*

To paint a picture for the reader

#### PURPOSE

To paint a picture **AND** give an example

The subject is said to be *another*

#### QUICK MEMORY TIP

The subject is *as* or *like* another

He was a volcano of rage.  
He was putty in her hands.  
With the windows rolled up the car was a furnace.  
After the storm the garden was a swamp.

#### EXAMPLES

She cried *like* a baby.  
Life is *like* a box of chocolates.  
He was as busy as a bee.  
She was snug as a bug in a rug.  
He was blind as a bat.

## RESOURCES



**'The Clever Sun and Moon'** story by Melissa Marr



A long time ago—before your grandmothers were even born—there lived a man and his two children. The children, a boy and a girl, wanted very much to learn about the world, but the closest school was too far away.

So the man began to build a school in their village. But building a school alone is hard, so the man made slow progress on his great task. He feared the children would have children of their own before he could build it. He worked hard, but there were so few hours for such a vast job.

One afternoon, as the man rested against a tree, a troll approached him.

The troll gestured towards the crude building and in a voice like gravel rattling in a box announced, 'I can build this. And if you can guess my name before I finish, you owe nothing.' Then the troll smiled, and it was a horrible smile. 'But if you cannot guess my name before the last stone is in place, you must give me the Sun and Moon—or yourself.'

The man paused because he knew there was no way he could pull the Sun or Moon from the skies, but he had no other plan so he agreed to the troll's bargain.

For the next three days, the man rose with the Sun and went to the clearing, and each morning there was the troll, hauling timber with the ease of a hare lifting a single blade of grass.

Every day the man watched the troll and guessed. 'Brokk? Garm? Pedar? Cnud?'

After each name, the troll shook his head.

By the end of the third day, the man had listed every name he knew: all his cousins, his ancestors, the villagers and even the few strangers who had passed through the village. The man was out of ideas.

Sadly, the man watched the troll wander back into the forest, big bare feet thumping on the ground, shaking the earth with each step.

Then the man went home and began to prepare the evening meal for his children. While he was doing so, his children approached him.

Leaning her head against his arm, his daughter asked, 'Why are you sad?'

His son added, 'Tell us, please.'

So the man began, 'I met a troll at the wood's edge, and he promised to build the school. I agreed to give him the Sun and Moon or myself if I could not guess his name by the time he had finished building the school.'

Sighing, the man rested his head in his hands. 'He's nearly half finished and I'm no closer to knowing his name. I'm going to have to go with him. I'm afraid I'll never see you again.'

Fortunately, the man's children were clever beyond compare. They knew a troll would not have offered a bargain lest he was certain he'd win, but they also knew that clever people often tricked trolls.

'It'll be all right, Father.' The son consoled his father as the children looked at each other.

The girl said to the boy, 'We'll save Father.'

\* \* \*

The next morning, the man went out to greet the troll as usual, but this day he asked, 'I suppose a big fellow like you must have a strong name?'

The troll nodded.

The man circled the troll, staring all the while. 'I wonder ... would Ingrid be a fitting name?'

The troll wrinkled his red, bulbous nose at the man, and returned to lugging a thick slab of stone towards the half-finished building.

The man continued as if he hadn't noticed the troll's displeasure. 'Maybe Gretel ...'

The troll picked him up and roared in his face. 'I can squash puny humans with only two fingers, and you suggest a human girl's name? The bravest, strongest trolls have fierce names like Bonegrinder, or One-Eye, or Earthcrusher, and I am the strongest troll in these woods.'

The man smiled at his children (who were hidden behind a shrub). ‘Now I know how trolls are named! Nettleclub? Or Throttlehands? Perhaps Toothgnasher?’

The troll roared again, realising he’d been tricked.

\* \* \*

The next morning, the man set off once more, but this time his children crept along with him and hid themselves behind a great boulder.

The troll was already there—hard at work.

The man smiled as he looked at the great progress the creature had made these past four days. ‘Why, without your iron arms, we’d have no chance of finishing the school.’

The troll grumbled, ‘Iron-Arms is my cousin, not me. Grandmother Slug-Eyes had used that name by the time I was born.’

From behind the boulder, the man’s son whispered, ‘Tell him that his name is sure to be better.’

The man opened his mouth, but the troll rasped, ‘Is that the Sun and Moon I hear behind the stone? Tell them to come closer.’

The man stood, mouth open.

They stepped forward, bravely saying, ‘We are his son and daughter.’

Trembling, the man wrapped an arm around each child.

‘Are they not your Sun and Moon?’ the troll asked. ‘Without the Sun and Moon, the sky is dark like a great abyss. Without my daughter, Moss-Toes, I would be in darkness.’

The man wept, for he knew the troll spoke the truth: the children were his Sun and Moon.

\* \* \*

That night, the man and his children talked together in their cottage.

‘We do have another clue,’ his son said.

His daughter carried the bowls to the table. Excitedly, she added, ‘His family uses one describing word and one body word: Slug-Eyes, Moss-Toes, Iron-Arms. Don’t you see?’

‘We need to figure out what his body part is, and then guess which word goes with it,’ his son stated.

For the first time in many hours, the man smiled. Surely his Sun and Moon were the cleverest of children.

'We know it's not his arms.' His daughter furrowed her brow. 'His cousin has that name. So what else?'

'What about his ears?' the man asked.

'No,' his son replied. 'He didn't so much as blink when you mentioned his ears.'

And so they spent the evening describing the troll.

\* \* \*

When the Sun rose, the three tromped to the almost finished school. As they arrived, the troll approached from the woods.

The man called, 'So, we were conversing last evening—'

His daughter added, 'About your great strong back.'

Her brother nodded. 'But I thought your legs were stronger ... Was I right, sir? Are your legs or back stronger?'

The troll snorted. 'The Sun thinks to trick me.' The troll then lashed two sturdy ropes around several thick logs and began climbing to the roof, pulling the logs up after him.

'And you, little Moon, do you think to trap me with your words?'

The children exchanged glances: clearly, their plan was not going as they'd hoped.

Then the man's daughter shrugged. 'Well, since trickery will not work, I suppose we must reason it out.'

The troll gestured to the school. 'This will be built before the night falls, and I'll not be tricked today.'

The man opened his mouth to speak, but his son held up a hand and stated, 'We'd hoped to find what your strengths were, but we shall still reason it out.'

With a bright glint in his eye, the troll looked at them and murmured, 'We shall see.'

So, they began. 'Black-Toes? WormFoot? Thunder-Step? Tree-Legs?'

By midday, they still had no clue as to the troll's name. They continued, 'Crooked-Tooth? FurryEars? Green-Finger?'

Their luck did not improve.

Finally, the troll leapt to the ground and asked quite gently, 'Do you have any last guesses, little Moon?'

'Bone-breaker? Itchy-Skin? Treeumm ...' the daughter spouted a tangled list of names.

‘You said Itchy-Skin earlier.’ The troll glanced at the boy, ‘And you, small Sun?’

The boy opened his mouth; a garbled word spilled out. He looked at his feet and muttered, ‘No.’

The troll glanced inquiringly at the man; the man shook his head.

‘So, would you like to see the school?’ the troll asked.

Then, without waiting for an answer, he ducked into the building. His voice boomed out, ‘It’ll need desks, I think ... Perhaps small shelves back here?’

In their determination to guess the troll’s name, the man and his children hadn’t looked very carefully at the school the troll had been building. They followed the troll to the doorway.

The walls and roof of the school were quite fine: there were no gaps between the logs that would let in cold winds in the winter, the roof had no leaks to let in cold rains. The floor was polished stone, smooth under their feet. And in the walls, the troll had left openings for windows.

Around the side they saw strong shutters lashed to the walls—able to be closed to keep in the warmth or open to let in the breeze.

The children murmured, ‘Amazing!’ and ‘Incredible, really!’

The troll beamed.

He turned to the man and asked, ‘Well?’

The man stood straight and stated, ‘It’s fine work, and I am prepared to pay my debt to you.’ He glanced at his children, only briefly. ‘I can’t give you the Sun and Moon, but I am yours to do with as you will—I am a man of my word.’

The son and daughter wept.

The troll nodded. ‘Come, then ...’

‘We will walk with you, Father,’ insisted the children.

So, as the Sun set on the seventh day, the strange troupe set off into the woods.

They had not walked far when a small mountain of a girl came hurtling out of the shadows of the forest. ‘Father!’

The troll swept the girl into his arms.

‘Are these them?’ she exclaimed. ‘Ohh! I was so excited when Father told me that you would be coming today! Can you really read? And write? And do sums? Father wasn’t sure if you could do sums.’

No-one spoke.

‘Are they always slow to answer, Father?’ Moss-Toes (for surely it could be no-one else) whispered loudly to the big, old troll.

He whispered, loudly also, back to her. ‘I haven’t told them yet, my Mossy-girl.’

‘Father!’ The troll-girl glared up at him. Then she turned towards the man and his children. ‘I want to learn. There’s no school in the forest, and when I saw you building such a thing, I asked Father to go and help since you—’ she ducked her head, and rushed through the next words, ‘—were going so slowly.’

Eyes wide, the man asked, ‘Just what is it you wanted?’

The troll, abashed, muttered, ‘Moss-Toes wants to learn, so I thought the Moon and Sun or you yourself could let her join your lessons in the new school ... maybe read books and such.’

They stood there awkwardly until the man’s daughter asked, ‘So why not just say that to my father?’

‘I’m a troll. Would you or your father have believed I meant you no harm if I did not ask for a bargain?’ the troll grumbled, cleaning his teeth with a broken branch.

‘Probably not,’ the man murmured. ‘But I suppose I should not have believed the old stories about trolls.’

Finally, the man’s son asked, ‘So, what is your name?’

‘Soft-Heart,’ the troll answered, lifting his daughter into his arms and strolling away towards the rather large troll-woman headed their way. ‘Come meet the rest of my family.’

# MONDAY

18th October 2021





## Lesson 7 – Character profile

Students are learning to:

- interpret events, situations and characters in texts
- understand that characters have individual characteristics or can be based on a stereotype.

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Students explain to an adult what they know about a typical troll character in stories they have read/viewed.</p> <p>After reflecting on or reviewing the character video from lesson 1.2, students discuss the typical flaws and goals of trolls in texts.</p>	<p><a href="#">Resource 1 – character video [vimeo]</a></p>
<p><b>Reading and viewing</b></p> <p>Students read the text, The Clever Sun and Moon from The School Magazine.</p> <p>Students complete ‘characteristics of characters’ activity, brainstorming the characteristics of the characters from the text - Dad, Troll, Moss-Toes, Sun and Moon.</p> <p>Students create a ‘character profile’ in their student workbook for one of the characters- focusing on non-physical characteristics such as feelings, behaviour and motivation.</p>	<p><a href="#">Resource 6 - The Clever Sun and Moon (online)</a></p> <p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>
<p><b>Writing and representing</b></p> <p>The troll in the story reveals in the end that he is not a stereotypical troll.</p> <p>Students rewrite the ending of the story, using the ‘stereotypical troll’ activity, as if the troll character had remained acting in the typical way we might expect of a troll.</p>	<p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students to discuss the following question with an adult or their class online.</p> <p>How did the reveal of the troll character’s identity at the end help make the story more interesting and engaging?</p> <p>Identify the ‘twist’ at the end of this story and discuss ‘twists’ in other well-known texts. What is the purpose of this technique? How can a strategy like this help with your own writing?</p>	

## Lesson 7

During this lesson you will learn to:

- interpret events, situations and characters in texts
- understand that characters have individual characteristics or can be based on a stereotype.

### 7.1 Speaking and listening

Explain to an adult what you know about a typical troll character in stories you have read or viewed.

After reflecting on or reviewing the character video from lesson 1, discuss the typical flaws and goals of trolls in texts.

### 7.2 Characteristics of characters

Read the text, [The Clever Sun and Moon from The School Magazine](#).

*Brainstorm the characteristics of the characters from the text.*

Dad

Troll

Moss-Toes

Sun

Moon

## 7.3 Character profile

Select one character from the text 'The Clever Sun and Moon'.

Create a character profile for this character focusing on non-physical characteristics such as feelings, behaviour and motivation.

Selected character:

Character profile	
<b>Feelings</b>	
<b>Behaviour</b>	
<b>Motivation</b>	

## 7.4 Stereotypical troll

The troll in the story reveals in the end that he is not a stereotypical troll.

Rewrite the ending of the story, as if the troll character had remained acting in the typical way we might expect of a troll.

How would a stereotypical troll behave? Brainstorm some characteristics of a typical troll's behaviour:

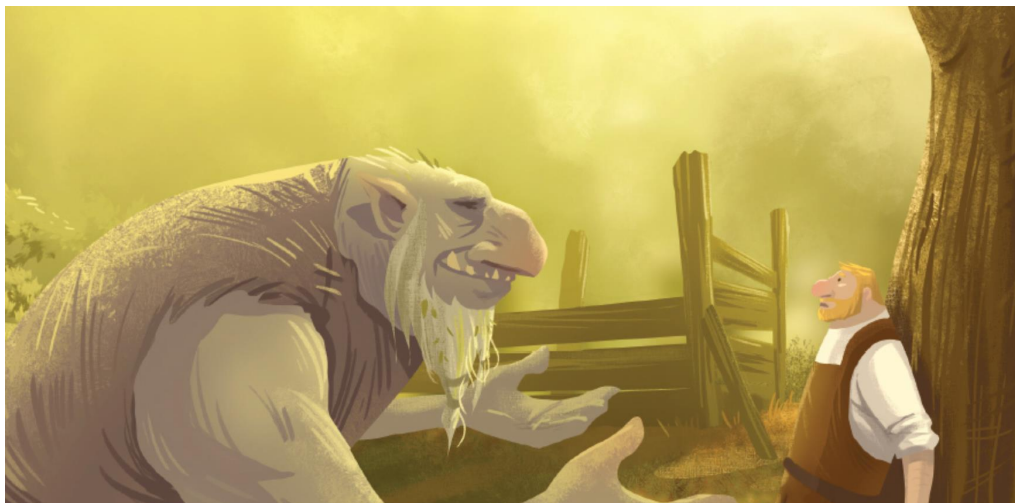
Rewrite the ending:

## 7.5 Reflection

Discuss with an adult or with your class online:

How did the reveal of the troll character's identity at the end help make the story more interesting and engaging?

Identify the 'twist' at the end of this story and discuss 'twists' in other well-known texts. What is the purpose of this technique? How can a strategy like this help with your own writing?





Learning From Home  
Monday Week 3

## PERIMETER: Finding the Perimeter

### Learning Intention

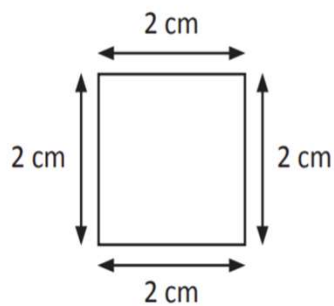
We are learning to find the perimeter of squares and rectangles.

### Success Criteria

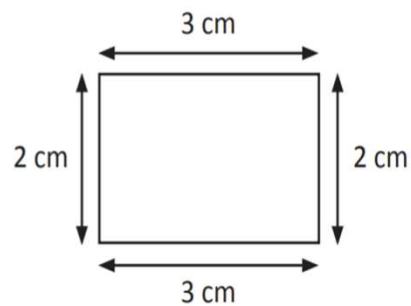
- I can calculate the perimeter of a range of shapes
- I can find the value of unknown sides

### Perimeter – perimeter of shapes

**Perimeter** is the length around the outside of a shape.



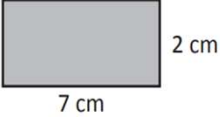
The perimeter of the square is 8 cm.



The perimeter of the rectangle is 10 cm.

These shapes are not to scale, so you can't use your ruler to work out the perimeter. Can you find the perimeter of these shapes?


**a**



7 cm      2 cm

P =  cm

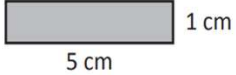
**b**



1 cm      7 cm

P =  cm


**c**



5 cm      1 cm

P =  cm

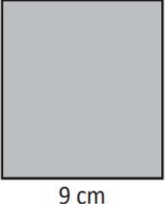
**d**



8 cm      6 cm

P =  cm

**e**

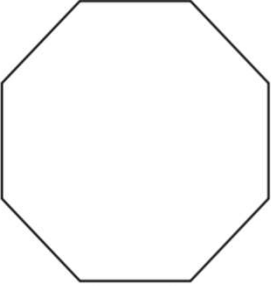


9 cm      9 cm

P =  cm

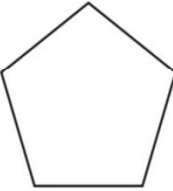
### Perimeter – perimeter of shapes

These regular polygons\* have sides of equal lengths.



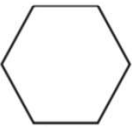
2 cm

**P = 16 cm**




2 cm

**P = 10 cm**



1 cm

**P = 6 cm**



1 cm

**P = 4 cm**

**3 Find the perimeter of these regular polygons\*:** \*Not drawn to scale.

**a**

5 cm

P =  cm

**b**

3 cm

P =  cm

**c**

4 cm

P =  cm

**d**

6 cm

P =  cm

**e**

4 cm

P =  cm

What is the fastest way to do this?

**THINK**

**1 Find the perimeter of these shapes. Choose a unit of measurement to express your answer.**

**a**

40 cm

45 cm

**b**

20 cm

2 m

**c**

1.5 m

1.8 m

**f**

20 cm

1.5 m

These shapes are all symmetrical. How does that help me?

**THINK**

**d**

**e**

**g**

**h**

**2** Look carefully at the dimensions on each shape and find the perimeter. Express your answers in cm:

**a**

**b**

**c**

**d**

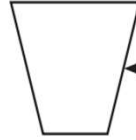
**e**

**f**



## Perimeter – measure perimeters

Perimeter is the length around a shape.  
The word originates from Greek and literally means 'around measure'.



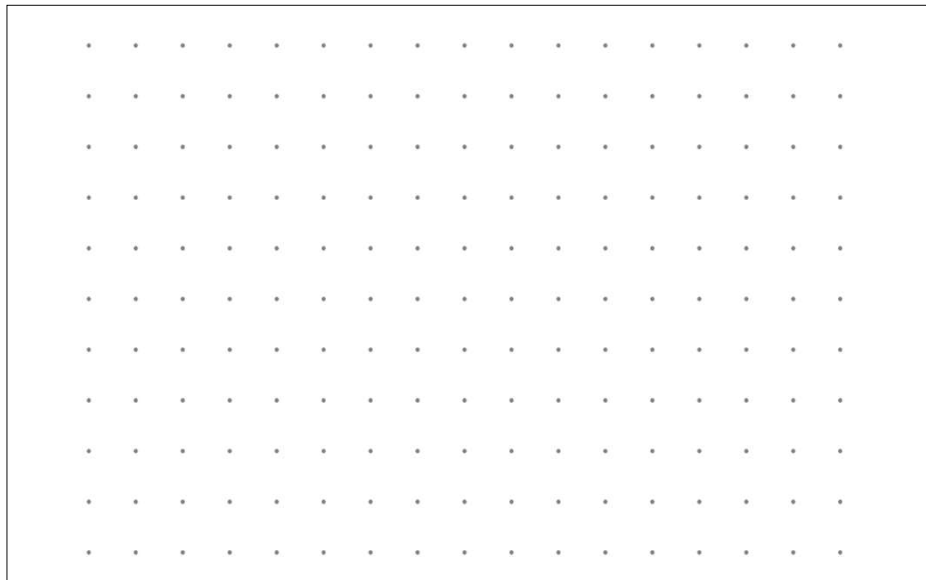
The boundary of this shape is the perimeter.

- 1 Choose 5 objects from around the room. Using a measuring tool e.g. a ruler or a tape measure, find the perimeter of each object. Record your measurements in the table.

	Item	Perimeter
1		
2		
3		
4		
5		

Draw a 2D representation of where you live (house/apartment).  
Estimate the length and width of your home and find its perimeter.

Extension  
Activity-  
show your  
working



# TUESDAY

19th October 2021



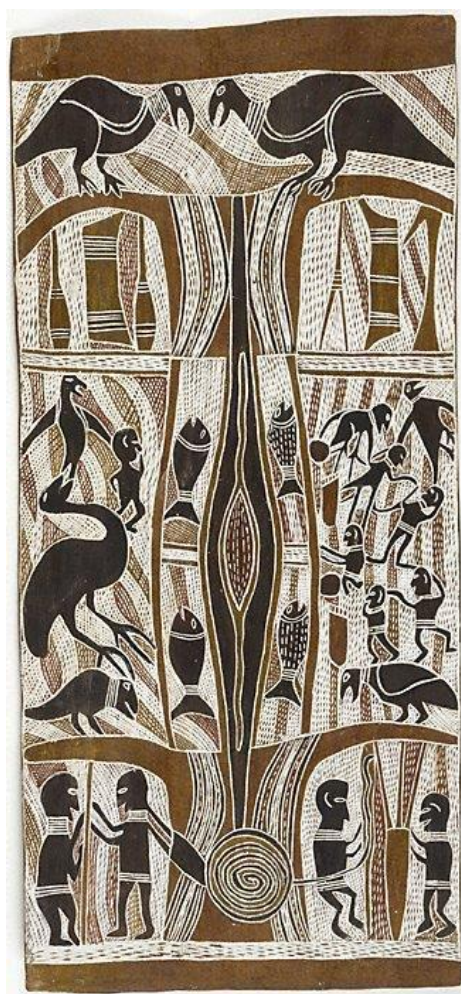
## Lesson 8 – Character development

Students are learning to:

- *identify and explain how choices in language influence personal response to different texts*
- *create literary texts that adapt or combine aspects of texts in innovative ways*
- *understand that characters have individual characteristics or can be based on a stereotype.*

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Ask students the following questions.</p> <p>Have you seen traditional Aboriginal art before?</p> <p>Where have you seen traditional Aboriginal art?</p> <p>Why do Aboriginal people often use art to tell their stories?</p> <p>Students observe the Aboriginal artwork, The story of Djirt by Narritjin Maymuru, from the Art Gallery of NSW. The website will provide further information to teachers around the story of the artwork.</p> <p>Encourage students to describe the artwork and their interpretation to an adult and to focus on descriptive language and the story the artwork is telling. Discuss the use of symbols.</p>	<p><a href="#">Resource 7 – The story of Djirt by Narritjin Maymuru</a></p> <p>[Photograph of painting – Art Gallery of NSW]</p>
<p><b>Reading and viewing</b></p> <p>Students view the online video explaining the definition of similes and metaphors.</p> <p>Students record a definition for simile and metaphor in their student workbook completing the ‘similes and metaphors’ activity.</p> <p>Students reread the text, The Clever Sun and Moon from The School Magazine.</p> <p>Students identify and record the similes found in the text and complete ‘similes and metaphors’ activity.</p> <p>The troll refers to the man’s children as the Sun and Moon throughout the text, this shows their significant importance to the man. This is known as a metaphor.</p> <p>Students answer the following question about the use of metaphor in the text in their student workbook:</p> <p>Why did the author choose to have the troll use the metaphor of the sun and moon for the man’s children?</p>	<p><a href="#">Resource 8 - Similes and Metaphors (online)</a></p> <p><a href="#">Resource 6 - The Clever Sun and Moon (online)</a></p> <p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>

Learning experience	Resources
<p><b>Writing and representing</b></p> <p>Students develop their own character.</p> <p>Ask students to draw and label their character in their student workbook using the 'character' activity.</p> <p>Students develop similes and/or metaphors to build their character.</p> <p>Students try to have one of the simile/metaphor descriptions differ from the typical or predictable nature of the character, this will support the character to reveal their true self when used to write a story.</p>	<p><a href="#">Resource 2 - Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students discuss the following questions with an adult or class online.</p> <p>What is the impact of the use of simile and metaphor on the text?</p> <p>Do you think this is a good way to develop a character?</p> <p>Will this character development technique assist you to build a story?</p>	



[Resource 7 – The story of Djirt by Narritjin Maymuru](#)

[Photograph of painting – Art Gallery of NSW]

## Lesson 8

During this lesson you will learn to:

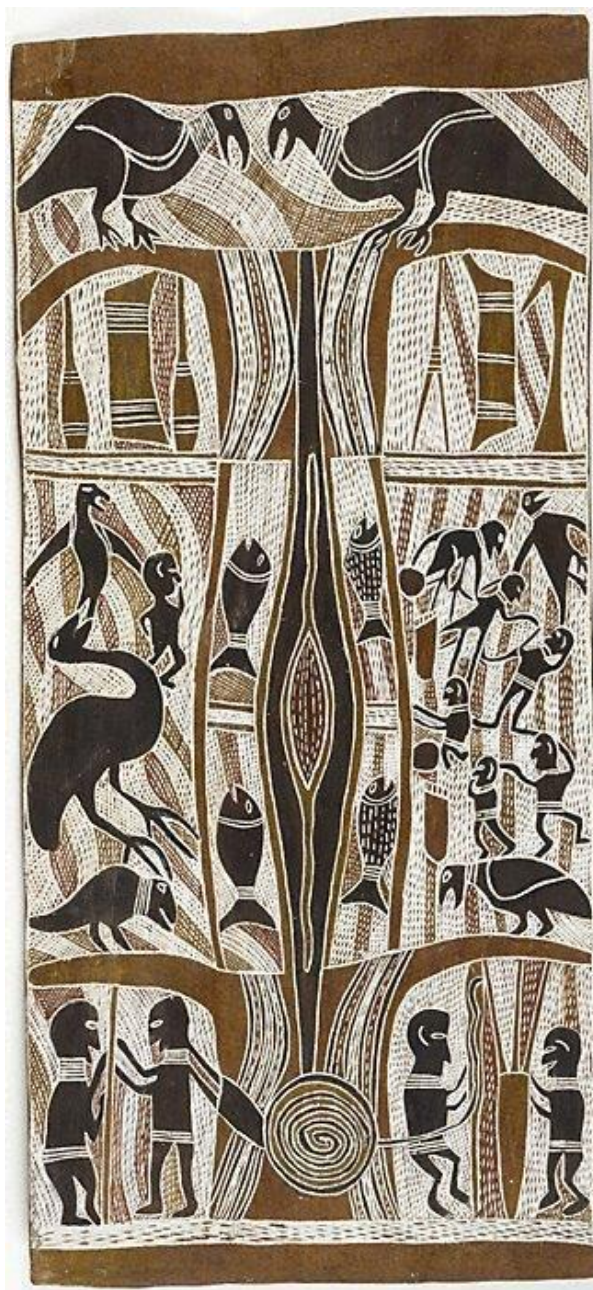
- identify and explain how choices in language influence personal response
- understand that characters have individual characteristics or can be based on a stereotype.

### 8.1 Speaking and listening – Aboriginal Art

Discuss with an adult:

- Have you seen traditional Aboriginal art before?
- Where have you seen traditional Aboriginal art? What story did it tell?
- Why do Aboriginal people often use art to tell their stories?

Look at the artwork below - **'The story of Djirt'** by Narritjin Maymuru. Examine it carefully.



**'The story of Djirt'**  
by Narritjin Maymuru

*This artwork is referred to with thanks to the Art Gallery of NSW.*

**After looking at the artwork:**

- describe the artwork to an adult
- what is the story being told?
- discuss the use of symbols.

## 8.2 Similes and metaphors

[Read this factsheet](#) explaining the definition of similes and metaphors.

Record a definition for simile and metaphor.

### Simile

### Metaphor

You will reread the text, [The Clever Sun and Moon](#) from The School Magazine.

Identify and record the similes found in the text:

The troll refers to the man's children as the Sun and Moon throughout the text, this shows their significant importance to the man. This is known as a metaphor.

Why did the author use the metaphor of the sun and moon for the man's children?

## 8.3 Character

Develop your own character.

Draw and label your character using adjectives, similes and metaphors.

Develop similes and metaphors to build your character. Try to have one of the simile and metaphor descriptions differ from the typical or predictable nature of the character, this will support the character to reveal their true self when used to write a story.



## 8.4 Reflection

Discuss with an adult or class online:

What impact do similes and metaphors have on the text?

Do you think this is a good way to develop or show a character?

Will this character development technique assist you to build a story?



Learning From Home

# PERIMETER

## Composite Shapes

Tuesday Week 3

### Finished?

- ✓ 01 Check your answers carefully.

---

- ✓ 02 Complete any assigned Mathematics tasks.

---

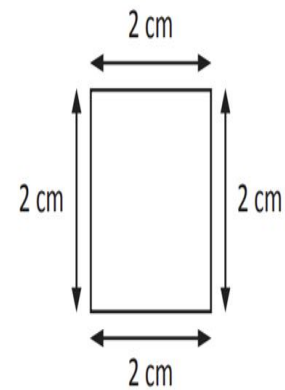
- ✓ 03 Work on this week's Maths Investigation.

---

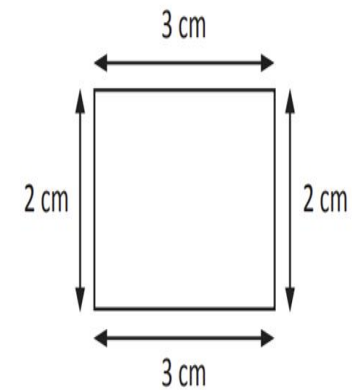



### Perimeter – perimeter of shapes

Perimeter is the length around the outside of a shape.



The perimeter of the square is 8 cm.



The perimeter of the rectangle is 10 cm.



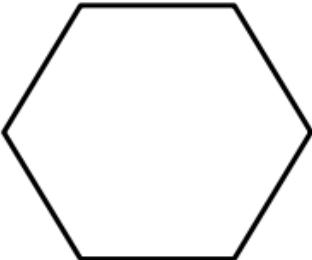

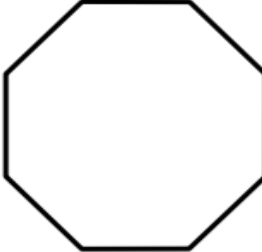
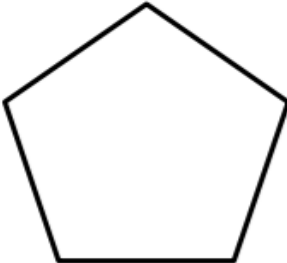
4

Find the perimeter of rectangles with the following dimensions:

Length	Width	Perimeter
6 cm	2.2 cm	<input type="text"/>
12.5 mm	4 mm	<input type="text"/>
5.54 m	3.56 m	<input type="text"/>
150 cm	1.3 m	<input type="text"/>

4

The perimeters of some regular polygons are given in the table below. Fill in the length of the sides:

				
Perimeter	24 cm	40 cm	48 cm	25 cm
Length of each side	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

5 Circle the correct perimeter for these rectangles:

a Length 12 cm, Width 8 cm

32 cm    40 cm    20 cm

b Length 14 mm, Width 12 mm

26 mm    52 mm    40 mm

c Length 8.5 cm, Width 2.7 cm

22.4 cm    112 cm    11.2 cm

d Length 10.2 cm, Width 8.4 cm

85.68 cm    36 cm    37.2 cm

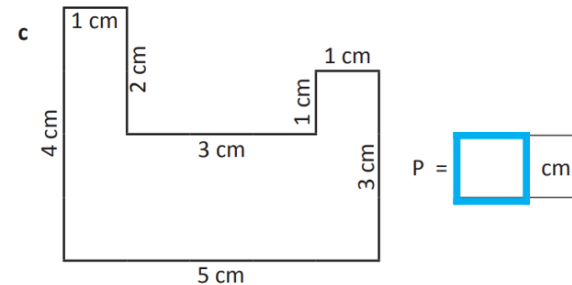
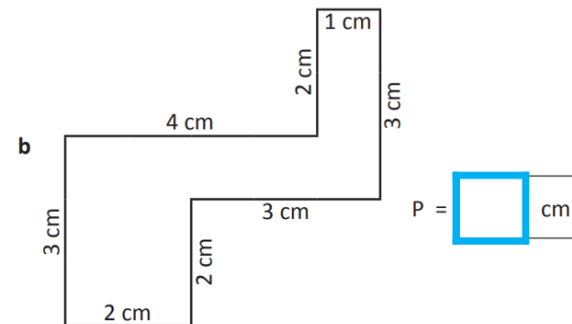
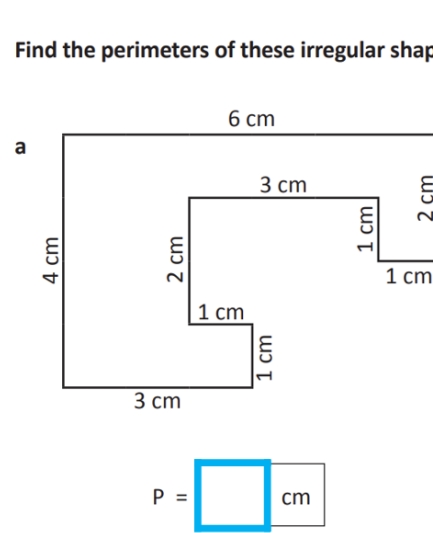
e Length 22 mm, Width 11 mm

6.6 cm    33 mm    60 mm

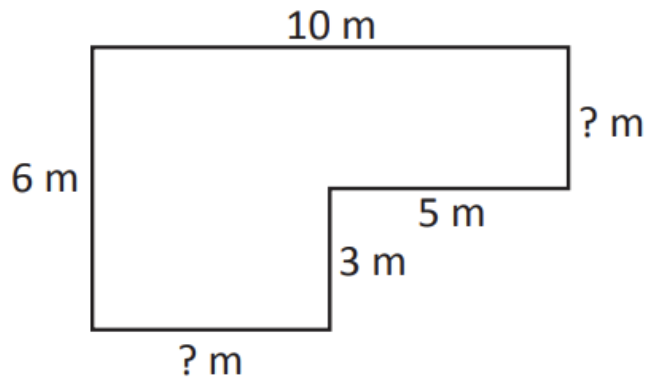
## Perimeter – calculate perimeter

Irregular shapes are not symmetrical. This means we need to measure each side.

2 Find the perimeters of these irregular shapes:



# Perimeter – perimeters of composite shapes



Look at this shape. Some of the measurements are missing.  
How do we work out the perimeter?

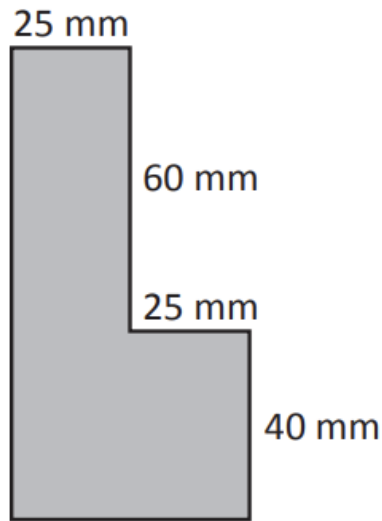
We use the information we have to help us fill in the gaps.

$$5 \text{ m} + ? \text{ m} = 10 \text{ m} \quad 10 \text{ m} - 5 \text{ m} = 5 \text{ m}$$

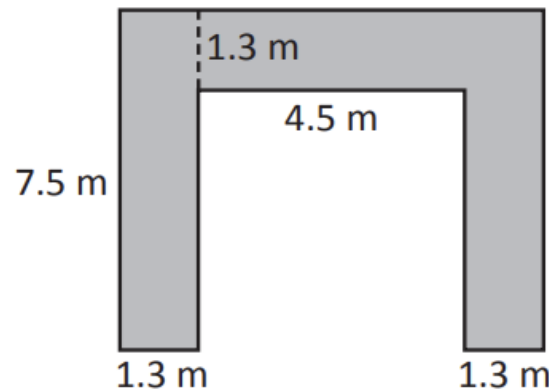
$$3 \text{ m} + ? \text{ m} = 6 \text{ m} \quad 6 \text{ m} - 3 \text{ m} = 3 \text{ m}$$

The perimeter of this shape is therefore 32 m.

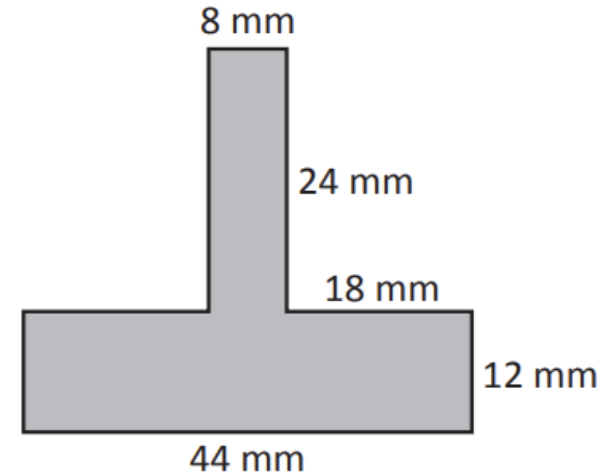
4 Work out the perimeter of these shapes\* using the known measurements to guide you:



a  $P =$

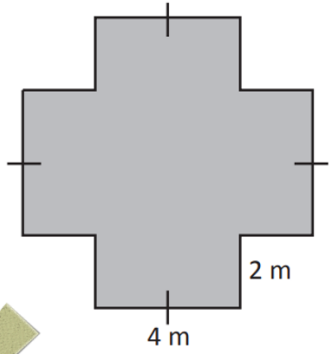


b  $P =$

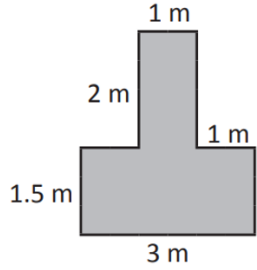


c  $P =$

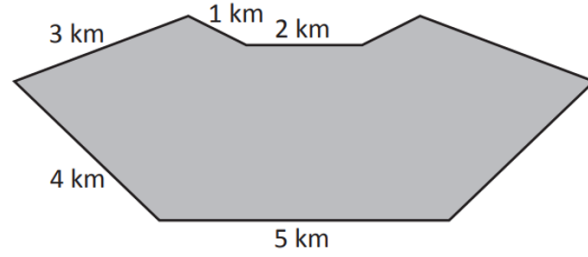
2 These shapes\* are symmetrical. Use this knowledge to help you find their perimeters:



a  $P =$



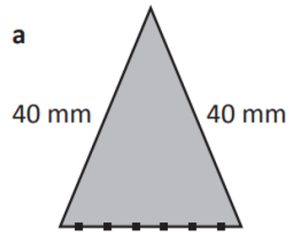
b  $P =$



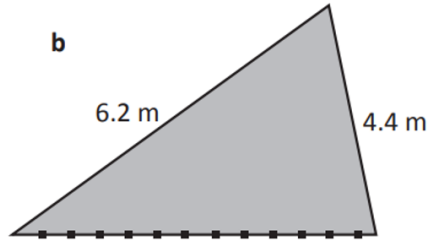
c  $P =$

*\*Not drawn to scale.*

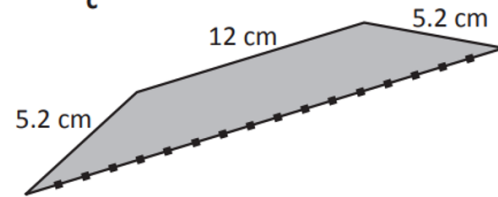
5 What is the length of the dotted line in each shape\*?



$P = 110 \text{ mm}$



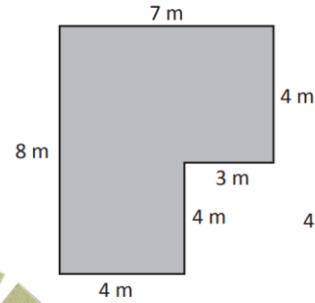
$P = 16.6 \text{ m}$



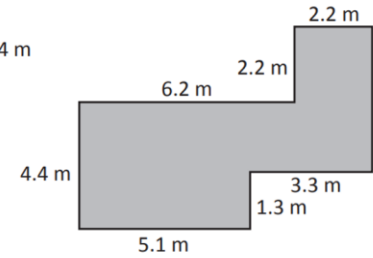
$P = 44 \text{ cm}$

*\*Not drawn to scale.*

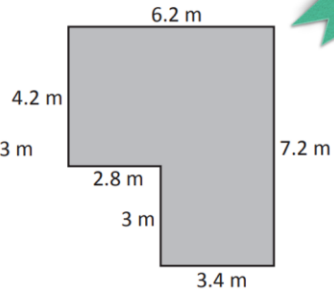
1 Work out the perimeter of these composite shapes\* by adding the length of the sides:



a  $P =$



b  $P =$

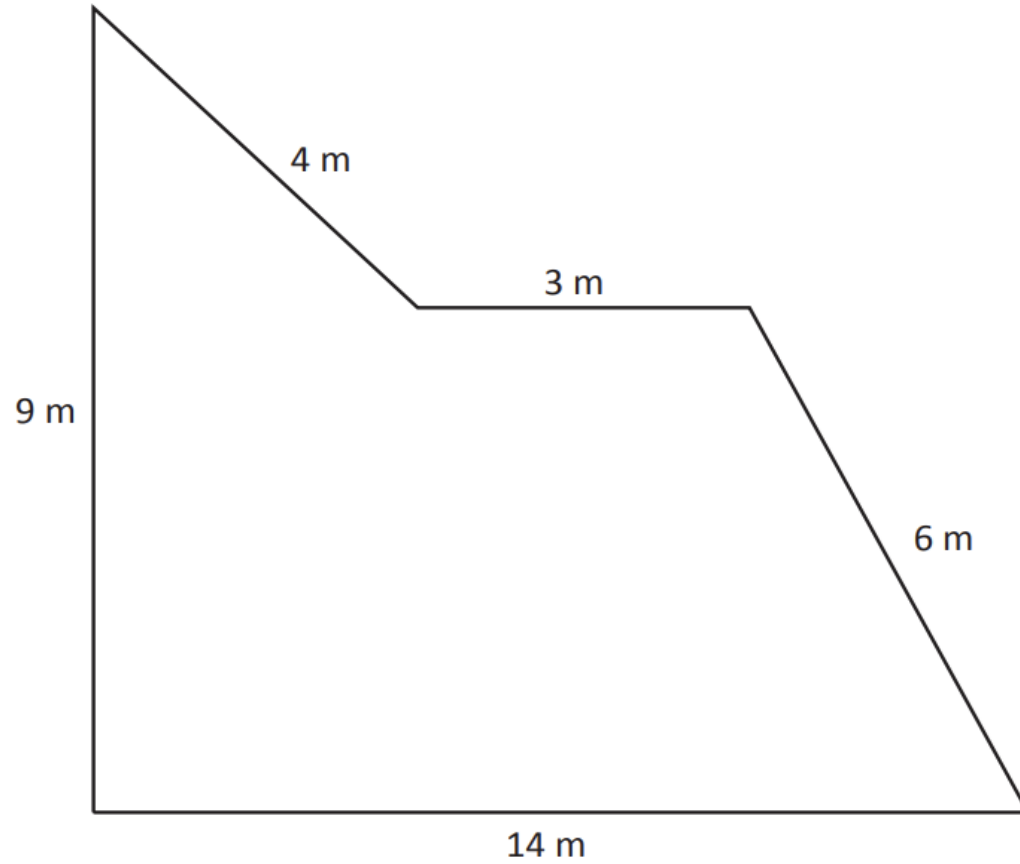


c  $P =$

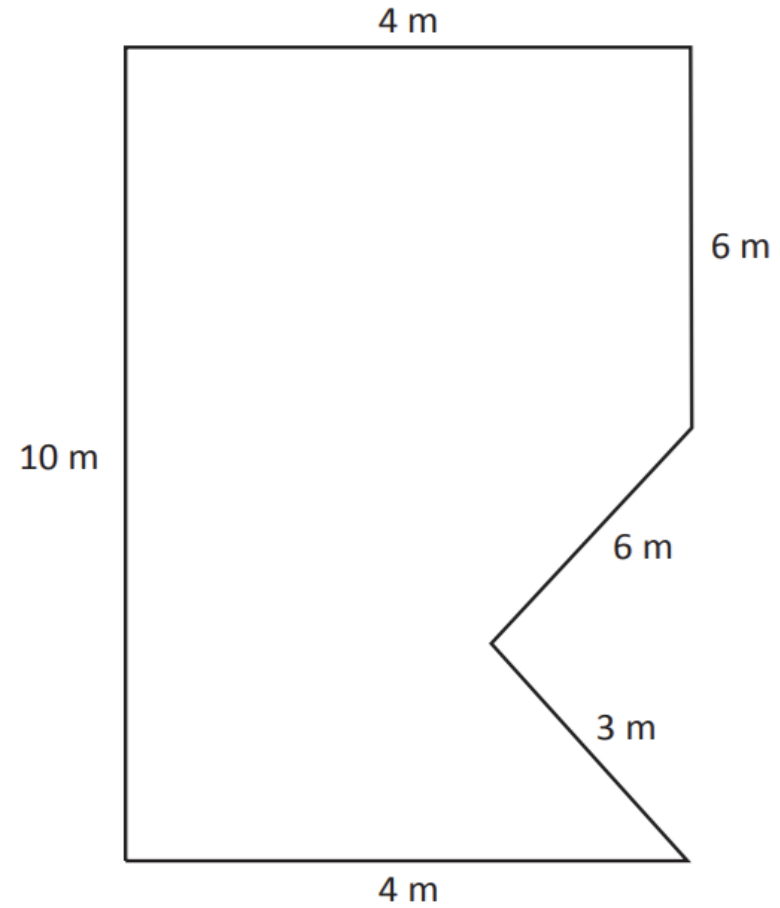
*\*Not drawn to scale.*

3 Which of these designs for backyard pools would be the least expensive to fence?

Pool A

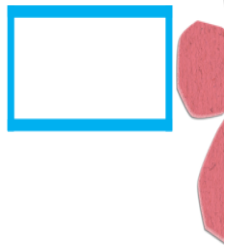


Pool B

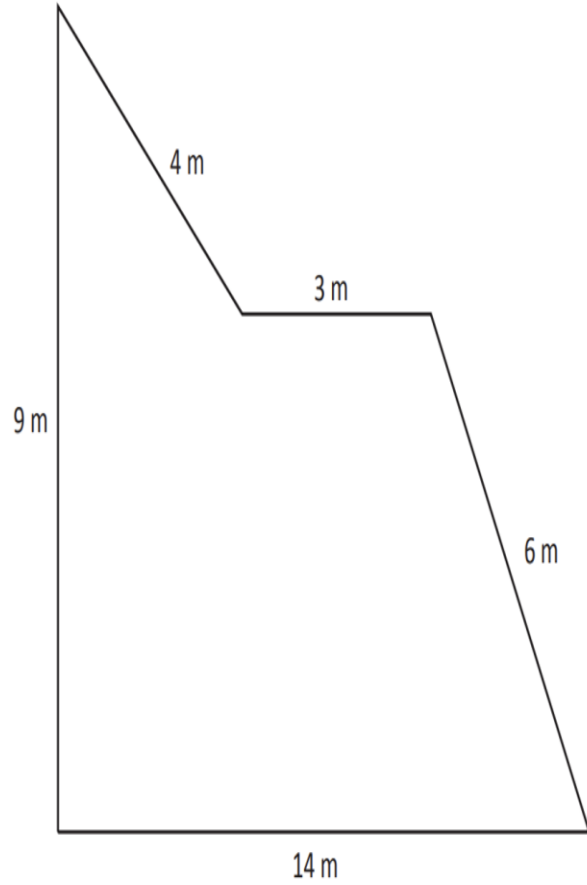


Why?

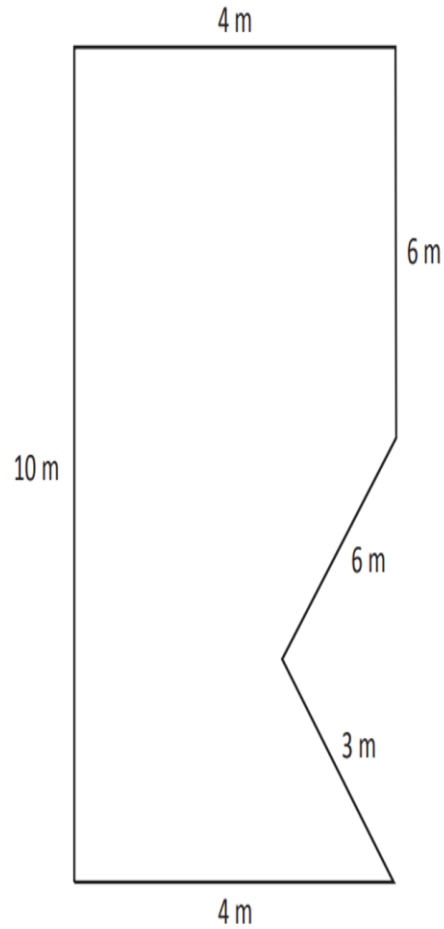
3 Which of these designs for backyard pools would be the least expensive to fence?



Pool A

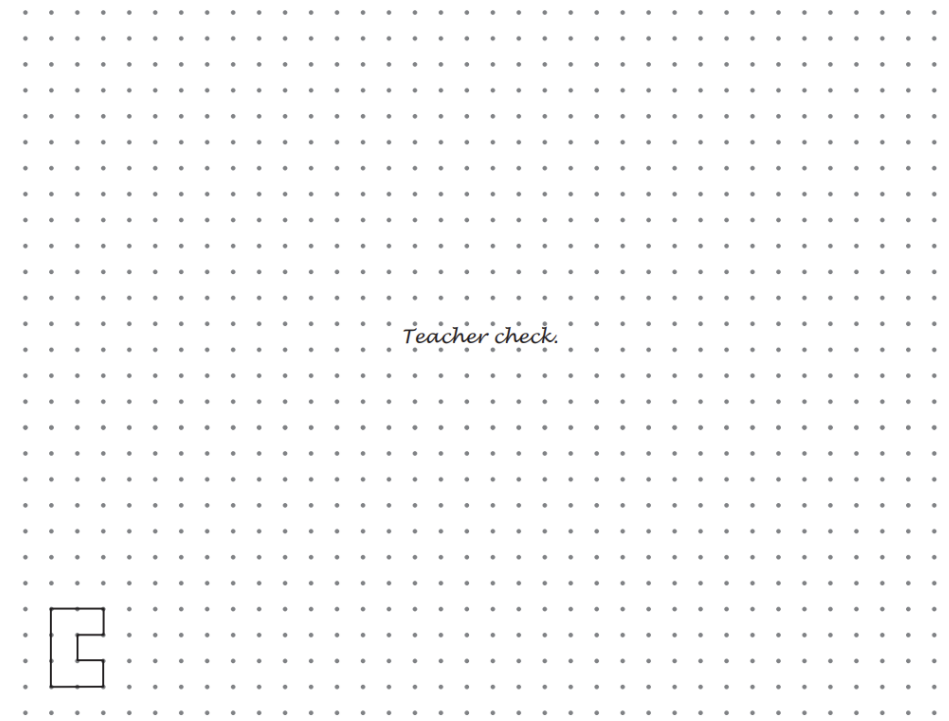


Pool B



Why?

Using block letters, write your name on this 5 mm dot paper. What is the perimeter of your name?



Find 3 things that are roughly twice as long as they are wide. Calculate their perimeter:

Teacher check.

# Learning From Home

## Take-home Pack



# WEDNESDAY

20th October 2021

Teachers off-line 12-3pm

**Complete the following tasks:**

**English:** Grammar lesson; read a book

**Maths:** Maths Investigation

*If you can access a web-enabled device today,  
then also complete:*

**Any unfinished Teams Assignments**

**Reading Eggs:** 2 map lessons & any  
assignments

**Mathletics:** minimum 5 assigned activities

# W3: Speech and Dialogue

---

NEW LINE NEW SPEAKER, SAME LINE SAME SPEAKER.

## Building a conversation: DYNAMIC DIALOGUE

---

Learn how to begin building basic conversations with two characters

Learn how to punctuate and structure a conversation correctly





# New line for New speaker/action

---

When building a conversation between characters, understanding who is speaking is crucial to the story.

**Rule 1 – SAME LINE SAME SPEAKER:** If the same person is speaking OR completing an action, you keep writing on the same line.

**Rule 2 – NEW LINE NEW SPEAKER:** If a new character starts to speak OR complete an action, you must now move them to a new line.

## Examples:

---

What not to do:

- “Did you see that movie?” asked Miley. “Sure did. Did you like it?” said Jarryd. “Yeah Jarryd it’s my favourite. You?” “Nah not quite. Maybe 2<sup>nd</sup> favourite.”

How do to properly:

- “Did you see that movie?” asked Miley.
- “Sure did. Did you like it?” said Jarryd.
- “Yeah Jarryd it’s my favourite. You?”
- “Nah not quite. Maybe 2<sup>nd</sup> favourite.”

# Activity 1

---

Your task is to come up with 3 different basic conversations that use two speakers. 2 speakers, 3 lines of dialogue. An example is below. You can do multiple conversations or repeat as many times as desired.

“Do you want a drink of lemonade?” asked Elina  
“Sure,” replied Thomas, “Are you having some too?”  
Elina raised her eyebrow, “Of course, its delicious!”

# Activity 2

---

Your task is to write 3 more conversations. This time, you need to add in some actions for each character. It is quite common to leave out the “said”, instead using actions to progress the storyline and conversation.

Ethan looked up from his desk at the opening door to see a visitor, “Are you alright Lily?”  
“Yes Dad.” Tossing a soccer ball in her hands, she asked, “Can you come out and play?”  
“Sure! Let me get my shoes,” responded her dad, standing up, stretching his arms wide.

# Not identifying the speaker

---

Quite often when reading, you will come across a conversation where the speaker is rarely identified. This is done through the use of actions AND the NEW LINE NEW SPEAKER rule. See below:

“How did your music lesson go today Sarah?” asked Mum.

Sarah looked out the car window, watching with longing eyes, the music teachers house fading in the distance, “It was great! We learnt about a new chord!”

“What chord?”

“It was the G chord. I had to put my fingers up higher on the fretboard.”

“That’s wonderful honey.”

## Activity 3

---

You now need to write at least 2 different conversations. At some point in the conversation, you DO NOT identify the speaker. You need to ensure that if it is a new person speaking, NEW LINE!  
An example is below

“Can we go now Dad” mumbled Kevin.

“Soon Kev. Let me just talk to your coach first,” said his dad.

“Ok well make it quick. I hate waiting around. Its boring!”

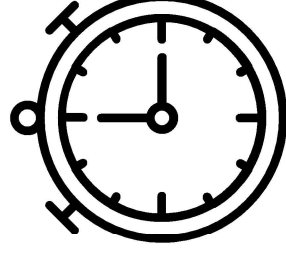
“I will son, don’t worry.”

# MATHS INVESTIGATION

## APPLY KNOWLEDGE AND UNDERSTANDING

position | time | data | length

Make an obstacle course in your backyard using equipment found around the house. Use this obstacle course to demonstrate the following skills:



- Create a map of your obstacle course including grid coordinates, a compass rose and a key
- Measure the total distance of the course
- Time how quickly you can complete the course (repeat x5)
- Record the times in a table and then create a graph to represent the results



*What other skills can you demonstrate?*

# THURSDAY

21st October 2021



## Lesson 9 – Storyboard

Students are learning to:

- understand that choices in vocabulary contribute to the effectiveness of texts
- create literary texts that adapt or combine aspects of texts in innovative ways.

Learning experience	Resources
<p><b>Speaking and Listening/Vocabulary</b></p> <p>Students complete the activity ‘defining words’ in the student workbook where they will be defining words from The Clever Sun and Moon text.</p> <p>Example vocabulary: crude, vast, haul, ancestors, lest, consoled, bulbous, abyss, glint, abashed.</p> <p>Students select two of the words and explain their meaning to an adult.</p> <p>Students provide some examples of how the words may be used in a sentence.</p>	<p><a href="#">Resource 6 - The Clever Sun and Moon (online)</a> dictionary</p>
<p><b>Writing and representing</b></p> <p>Students complete a comic strip storyboard to develop a story featuring the character they have developed in lesson 8.</p> <p>Students need to remember that the character will reveal their true self at the end of the story.</p>	<p><a href="#">Resource 2 – Student workbook (DOCX 1.7MB)</a></p>
<p><b>Reflection</b></p> <p>Students discuss the following question with an adult.</p> <p>How have you used what you have learned about character to develop your story?</p>	

## Lesson 9

During this lesson you will learn to:

- understand that choices in vocabulary contribute to the effectiveness of texts
- create literary texts that adapt or combine aspects of texts in innovative ways.

### 9.1 Defining words

Using a dictionary, find the definitions of the following words from 'The Clever Sun and Moon' text. Also indicate which part of speech they represent e.g. noun/verb/adjective etc

crude -
vast -
haul -
ancestors -
lest -
consoled -
bulbous -
abyss -
glint -
abashed -

Select two of the words and explain their meaning to an adult.

Ensure that you provide some examples of how the words may be used in a sentence.

## 9.2 Story board

Complete a comic strip story board to develop a story featuring the character you have already developed previously. Use as many storyboard rectangles as you need. Remember that the character will reveal their true self at the end of the story.



---

---

---



---

---

---



---

---

---



---

---

---



---

---

---



---

---

---



---

---

---



---

---

---



---

---

---

## 9.3 Reflection

Discuss the following question with an adult:

How have you used what you have learned about character to develop your story?





Learning From Home

# PERIMETER

## Constructing Shapes

Thursday Week 3

# Working Online?

Look for the blue boxes!



Every time you see a blue text box, you will be able to click on it to type your answer directly onto the slide.

## Learning Intention

We are learning to find the perimetre of squares and rectangles.

## Success Criteria

- I can construct accurate shapes based on perimeter measurements

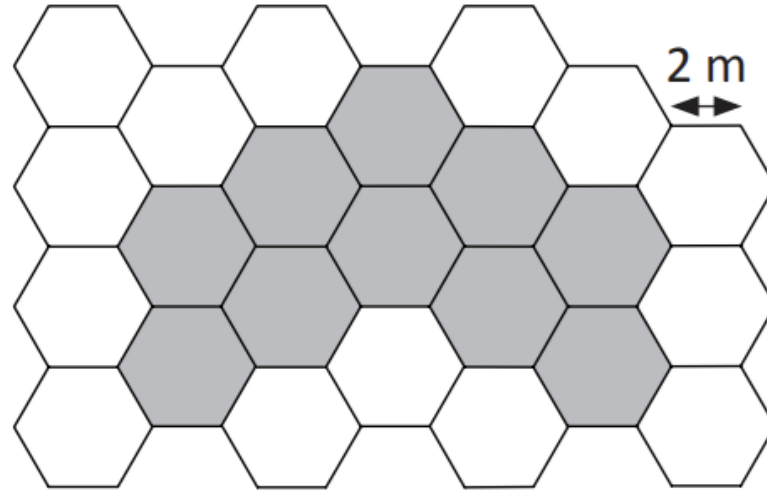
2

Look carefully at this hexagonal grid.  
If the side of each hexagon is 2 m, what  
is the perimeter of the shaded area?

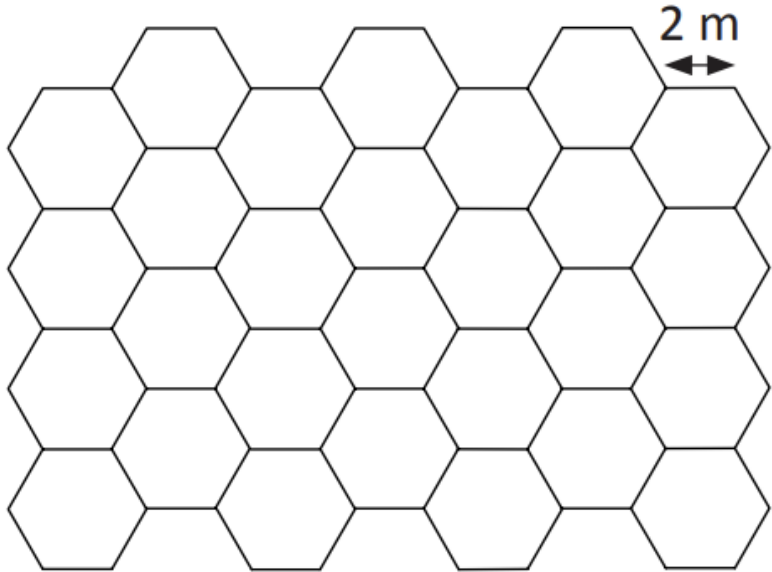
$$P = \text{Number of sides} \times 2$$

$$P = 26 \times 2$$

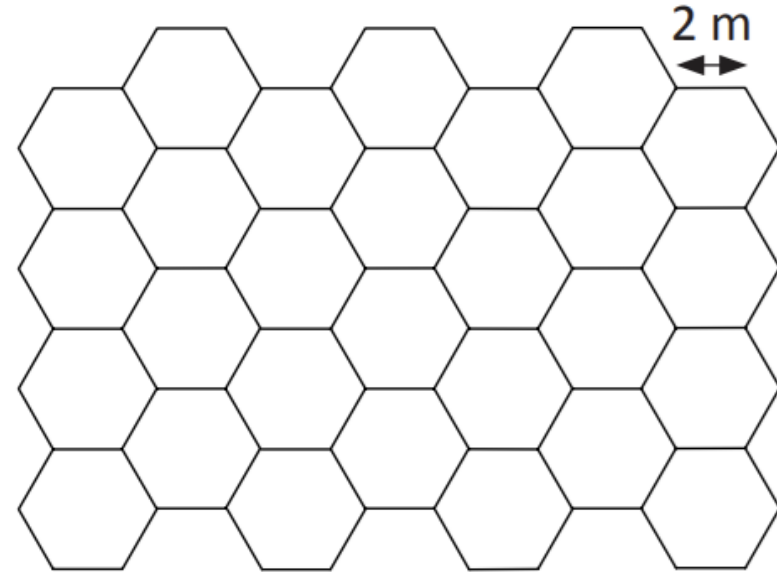
$$P = 52 \text{ m}$$



a Shade the hexagons to construct a shape  
with a perimeter of 36 m.

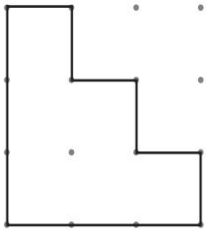


b Shade the hexagons to construct a shape  
with a perimeter of 60 m.



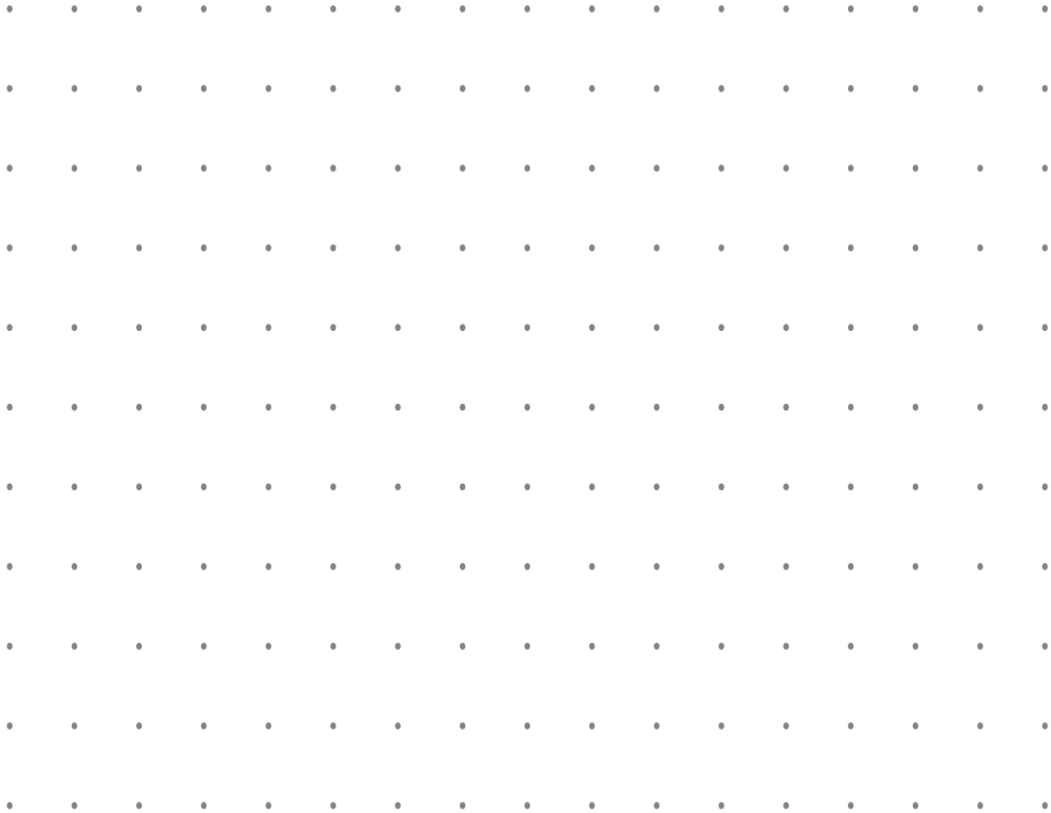
# Perimeter – construct shapes

3 On the left is a staircase shape. Use the 1 cm dot paper to redraw the shape so that the perimeter is twice as big:



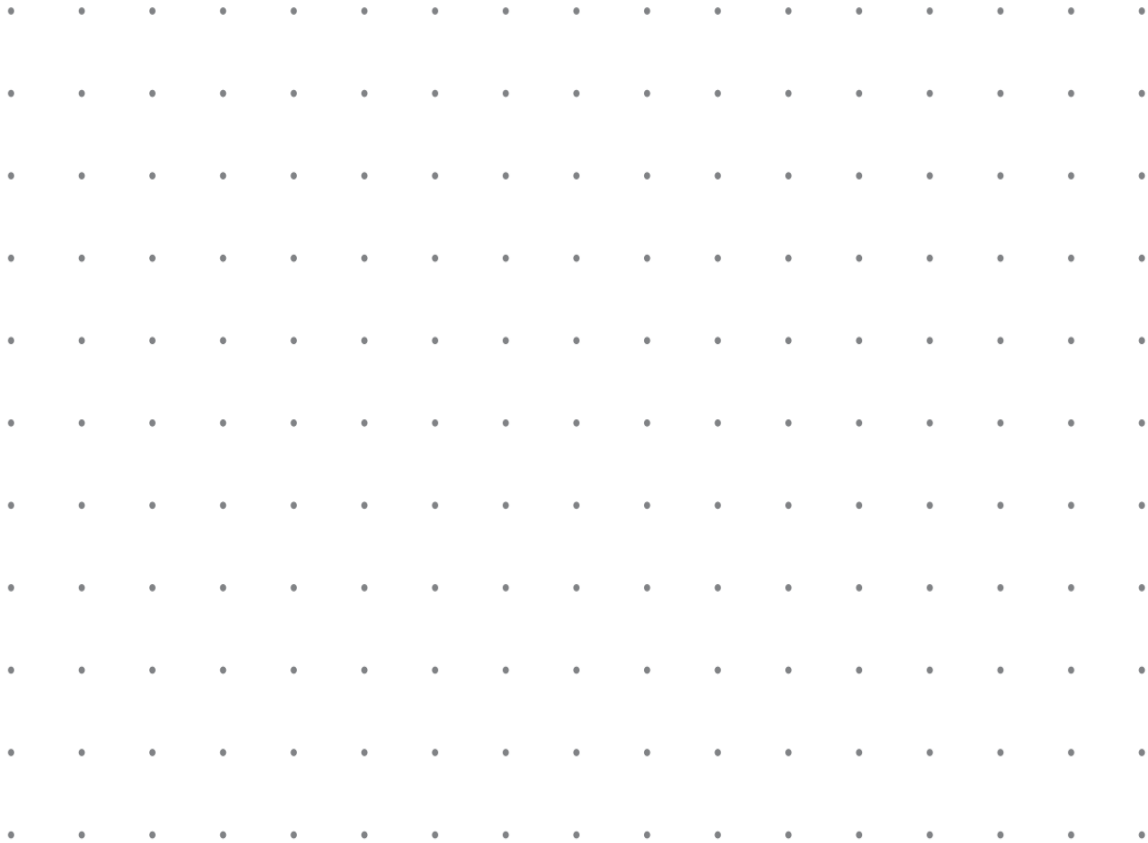
1 cm

4 Now draw another version with the perimeter three times as big:

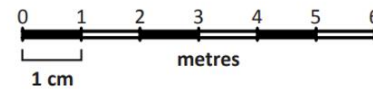
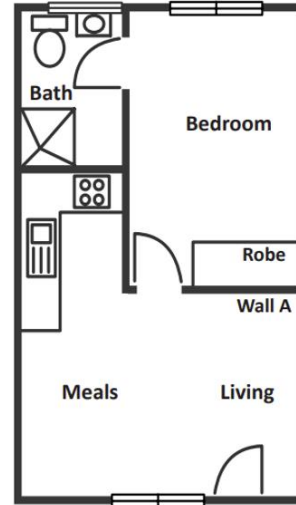


Draw a 2D castle of your own design. In doing so, make sure the perimeter is 150m. Good luck.

4 Now draw another version with the perimeter three times as big:



7 Look at the floor plan of the apartment below. Answer the following questions:

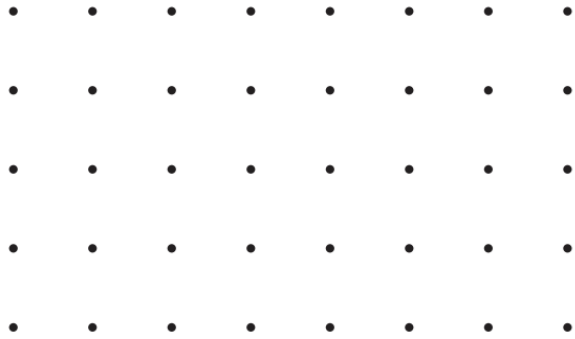


- a What is the scale?
- b What is the perimeter of the apartment?
- c What is the perimeter of the bedroom?
- d What is the length and width of the bathroom?
- e You want to buy a plasma TV that takes up  $\frac{1}{2}$  the length of Wall A. How long will it be?
- f If your plasma TV is 0.75 m high, what will its perimeter be?
- g Is this a big apartment?
- h Explain your thinking.

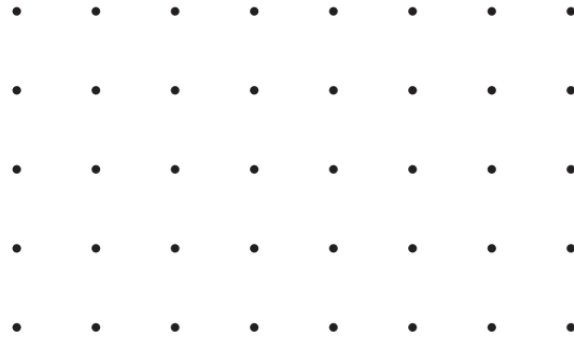
# Perimeter – construct shapes

1 Use this 1 cm dot paper to draw some shapes with different perimeters.

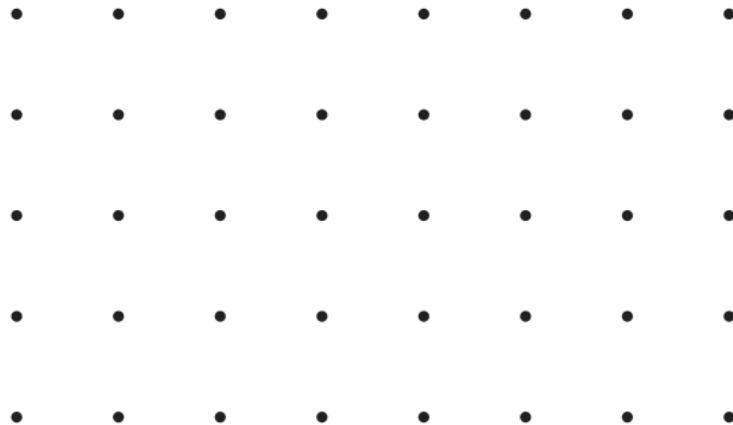
a Draw a rectangle with a perimeter of 12 cm.



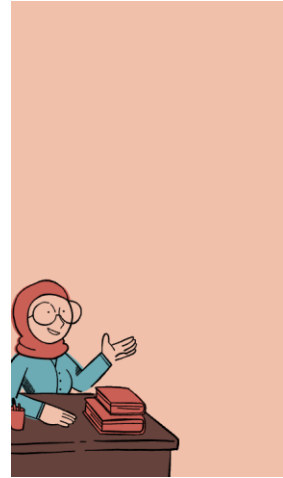
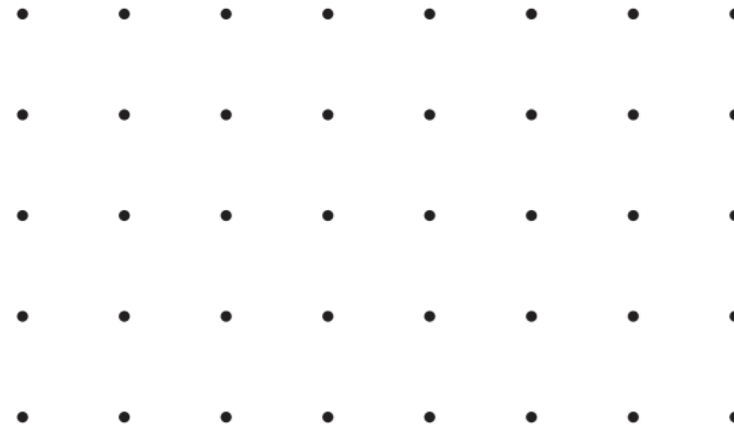
b Draw a rectangle with a perimeter of 20 cm.



c Draw a rectangle with a perimeter of 16 cm.



d Draw a rectangle with a perimeter of 10 cm.



## Finished?

- ✓ 01 Check your answers carefully.
- ✓ 02 Complete any assigned Mathematics tasks.
- ✓ 03 Work on this week's Maths Investigation.

# FRIDAY

22nd October 2021



# 10 – Narrative writing

Students are learning to:

- compose increasingly complex text
- create literary texts that adapt or combine aspects of texts in innovative ways
- select appropriate language for a purpose.

Learning experience	Resources
<p><b>Speaking and listening</b></p> <p>Have a conversation with an adult taking on the character you have created in first person narration.</p>	
<p><b>Writing and representing</b></p> <p>Independent writing – written task</p> <p><b>Success Criteria</b></p> <ul style="list-style-type: none"> <li>• <b>composes a complex text demonstrating character development, with a true character reveal at the end</b></li> <li>• <b>selects and uses consistent author voice throughout the text</b></li> <li>• <b>uses similes and/or metaphors to enhance the text.</b></li> </ul> <p>Students use the character they have created and their storyboard comic strip to write a narrative with a true character reveal at the end.</p>	
<p><b>Reading and viewing</b></p> <p>Ask students to read aloud their story to an adult, focusing on expression and audience engagement.</p> <p>Students may record their reading to submit to the teacher online.</p>	
<p><b>Reflection</b></p> <p>Students to reflect on the following questions with an adult or online with peers.</p> <p>What are the best parts of your story?</p> <p>How have you grown as a writer?</p>	

## Lesson 10

During this lesson you will learn to:

- compose increasingly complex text
- create literary texts that adapt or combine aspects of texts in innovative ways
- select appropriate language for a purpose.

### 10.1 Speaking and listening

Have a conversation with an adult taking on the character you have created in first person narration.

### 10.2 Independent writing

Use the character that you have created and your story board comic strip to write a narrative with a true character reveal at the end.

Remember that the use of similes and metaphors will enhance your character development and description.

If you think you'll need more space, use some paper of your own.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



## 10.3 Reading and viewing

Read aloud your story from 10.2 to an adult, focusing on expression and audience engagement.

You may record yourself reading to submit to your teacher online.

## 10.4 Reflection

Discuss with an adult or your class online:

What are the best parts of your story?

How have you grown as a writer?





Learning From Home

# PERIMETER

## Word Problems

Friday Week 3

### Perimeter problems

solve



What to do



a The length of a rectangle is double its width. Find the perimeter if the width is 200 cm.

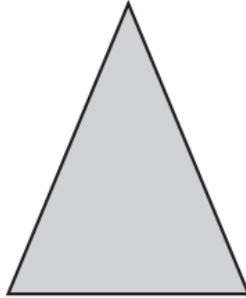
b The length of a rectangle is 6 times its width. Find the length and width of the rectangle if the perimeter is 7 metres.



Solve these perimeter puzzles:

- a Look at this isosceles triangle. The base measures 3 m.  
The perimeter of the triangle is 11 m.

What is the length of one of the other sides?



- b An equilateral triangle has a perimeter of 15.9 mm. How long is each side?

Each side is  long.

- c Farmer Joe needs to re-fence one of his paddocks. The perimeter of the paddock is 144 m. The paddock is twice as long as it is wide.

What is its length? What is its width?

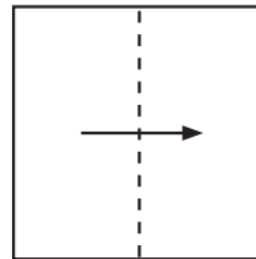
L =

W =



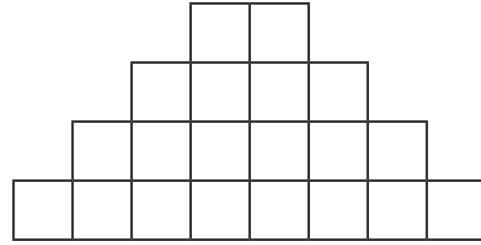
- d A square piece of paper is divided in half as shown.  
If the perimeter of one of the halves is 36 cm,  
what was the perimeter of the original square?

P =

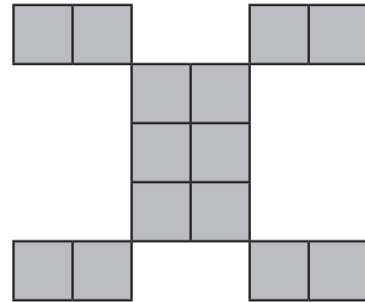


**Extension  
Activity-  
show your  
working**

a The area of each square is  $9 \text{ cm}^2$ . What is the perimeter of this figure?



b The figure is made up of 14 squares. Each square has an area of  $36 \text{ cm}^2$ . What is the perimeter?



**Finished?**

- ✓ 01 Check your answers carefully.

---

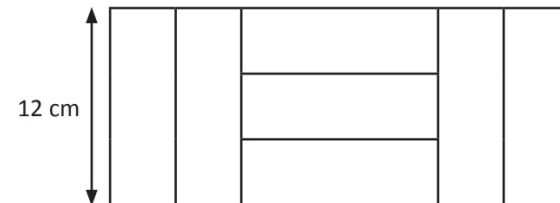
- ✓ 02 Complete any assigned Mathematics tasks.

---

- ✓ 03 Work on this week's Maths Investigation.

---

c The area of this rectangle is  $288 \text{ cm}^2$ . If all the smaller rectangles are exactly the same, what is the perimeter of one rectangle?



# Learning From Home

## Take-home Pack



Term 4 | Weeks 1-3

# SCIENCE



# Science and STEM TERM 4

Building a propeller-  
powered car



Lesson 1:  
Understanding  
Forces

# Forces

Watch the FIRST video below as an introduction to Forces. There are also additional videos underneath it if you would like to know more about Forces.

<https://www.youtube.com/watch?v=RQcLiNwEtLM>

Additional videos:

Force in more detail:

<https://www.youtube.com/watch?v=B6mi1-YoRT4>

Some forces easily explained:

<https://www.youtube.com/watch?v=uZpwzOgRTjc>

Reinforcing knowledge:

<https://www.youtube.com/watch?v=WCPTKRaScgE>



Muscular Force



Mechanical Force



Frictional Force

## Defining Force

A force is a push, pull or a twist that causes an object to change its motion. It also includes any interaction between two objects.

Forces are always around us, whether you notice them or not.

A table that sits in the living room is exerting a gravitational force down into the floor, whilst the floor produces a normal contact force. Both are equal, resulting in a table that doesn't move.

Forces have:

**magnitude** (how hard you might push/pull something)  
**direction** (where you push/pull it)

They can also be broken down into contact, and non-contact forces



# Contact Forces

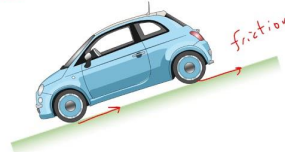
A contact force is one that physically touches an object. Even in the case of wind, the air is physically interacting with another object.

There are several types of contact forces. These include:

- **Applied force** (when you might push/pull something)
- **Normal force** (when the surface is pushing up against gravity to keep an object at rest – think a cup resting on the table)
- **Frictional force** (the ground slowly stopping the rolling soccer ball)
- **Air resistance force** (air pushing against a moving object)
- **Tension force**
- **Spring Force**

## Contact forces

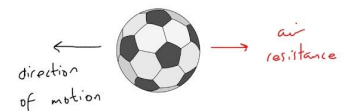
### Friction



### Normal reaction



### Air resistance



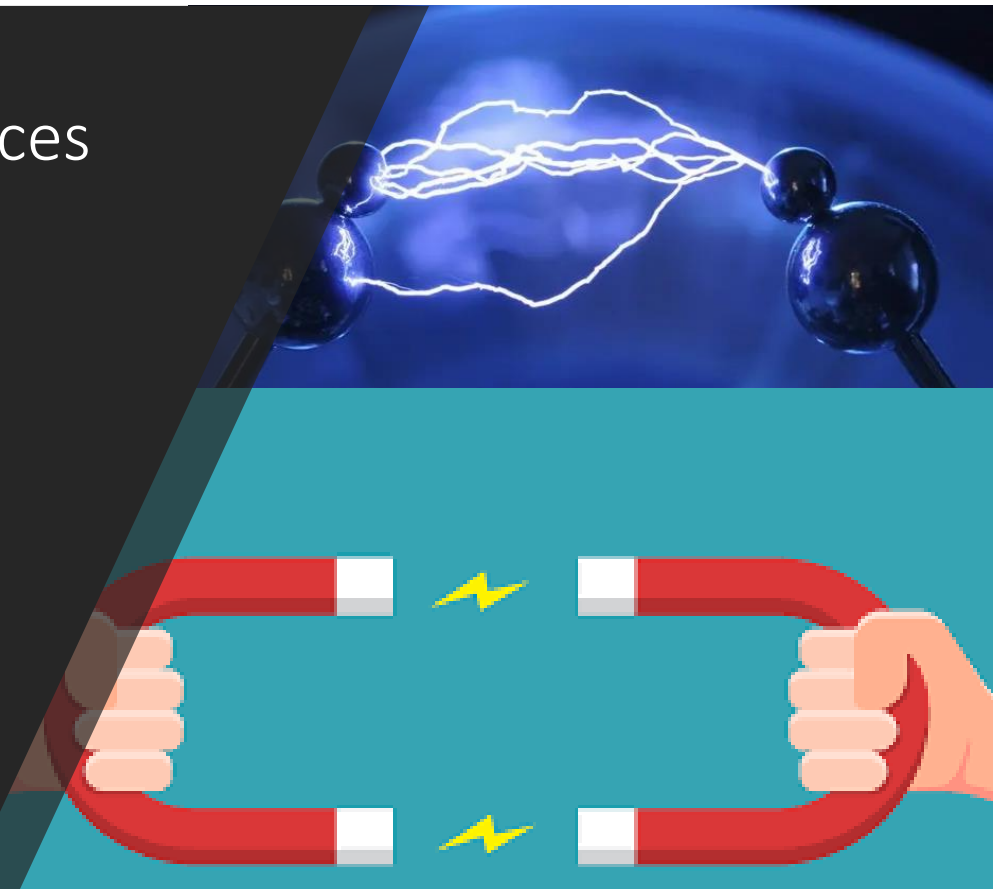
© my-gcscience.com

# Non-contact Forces

These are forces that have no physical contact with the object they are interacting with.

Non-contact forces include:

- **Gravitational force** (when an object is falling to the ground)
- **Magnetic force**
- **Electrical force**

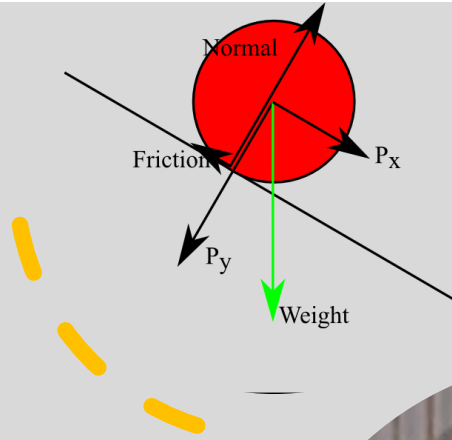


# Forces on objects

If two forces are equal, an object will be at rest.  
 If one force is greater, then an object will be in motion.

Examples:

1. **A cup on a table** – has equal gravitation and normal force pushing up
2. **A heavy weight that falls through the table** – has greater gravitational force (which also interacts with the mass/weight of an object) compared to the normal force of the table.
3. **A kicked soccer ball** – initially has more applied force to make it move until friction, air resistance and gravity interact and cause it to stop.
4. **A ball rolling down the hill** – has greater gravitational force that pushes it down, overcoming the friction and air resistance forces.



## Activity 1: Fill in the table

Types of Contact Forces	Types of Non-contact Forces

## Activity 2: List the forces

What forces are evident in the following situation?

Example	What different forces?
Bouncing Basketball	Applied force (push), friction, gravitational, normal contact force, air resistance
Resting soccer ball	
Magnet pushing away paper clips	
Water bottle resting on the table	
Man falling through the air	
Air pushing a sail boat	
A ball rolling UP a slight incline	
A cup resting on the table	
The moon moving around Earth	

## Activity 3: Objects and force

Answer the following questions.

1. Which forces might stop/slow down a moving car?
2. What force makes rain fall?
3. If there is no friction or air resistance, will a rolling soccer ball slow down?
4. Is air resistance a contact or non-contact force?
5. Give an example of 'normal contact force'.
6. What forces are present when a person kicks a football through the air?

# Lesson 2 – Energy



## Forms of energy


Energy can be defined as, “the ability to do work.”

We can go one step further and say that energy can exert a force which causes a displacement (movement) of an object. This displacement is known as ‘doing work’

How does energy relate to force?

Watch the first 3 minutes of this video:

<https://www.youtube.com/watch?v=qYTe8TTXSeS>



## Can energy "disappear"?

- No, Energy can be neither created nor destroyed,
- Energy can be converted from one form to another. (**First law of thermodynamics.**)
- <https://www.youtube.com/watch?v=1OFIW8OXN64>



## The Two states of Energy


- **Potential** energy
  - is energy **stored** in an object due to its position or arrangement.
- **Kinetic** energy
  - is energy of an object due to its **movement** - its motion.

## Difference between Potential and Kinetic Energy



## List the forms of Potential and Kinetic Energy

Potential Energy	Kinetic Energy
Chemical	Radiant
Mechanical	Thermal
Nuclear	Motion
Gravitational	Sound
	Electrical



## Activity 1 - Research

Research information on the types of energy below and find out what they mean.

Chemical  
Mechanical  
Nuclear  
Gravitational  
Radiant  
Thermal  
Motion  
Sound  
Electrical



## Activity 2

Answer the following questions on energy. You may have to research to find the answer

1. What is the difference between kinetic and potential energy?
2. Wind power/energy is a type of Solar energy. Why is this?
3. We will be focusing on using wind power to move our cars. Is this potential or kinetic energy being used?
4. In our STEM project, we will be using a rubber band to help turn a propeller. What type of energy is being used to help create the twisting force in the rubber band?
5. If the rubber band creates the force, then increasing the energy from the band will increase the speed/force of the propeller. How can we increase the energy delivered from the rubber band?

## Activity 3 - Optional

You have probably heard about the Earth's problem with burning fossil fuels and using non-renewable energy.

In this activity, you need to find some renewable energies that Australia could use in the future.

You will likely find types of 'energies' that were not on the list on slide 16. That is because the energies you find are a type of gravitational, chemical, nuclear energy etc.

What you need to do in this activity, is find 2-3 renewable types of energy and identify what branch of energy they come under. A fake example is given below:

**Solar energy** is a renewable source of energy, and it is a type of **Nuclear energy**.

## Lesson 3 – Friction and Air Resistance





# Friction

Watch these two videos:

1. <https://www.youtube.com/watch?v=whlf-0gY1ho>
2. <https://www.youtube.com/watch?v=qNOVONXV3Kw>

## Friction explained

---

Friction is what pushes back on objects when they move along the ground.

---

Different types of surfaces have less or more friction than others. A smooth surface (like ice or tiles) has less friction than the rough surface of grass. Less friction means more chance of slipping. *What surfaces are easier to drive on?*

---

No friction means you would slip over AND objects would not stop moving

---

Less contact with the floor would decrease friction, whilst more contact would increase friction. *Does that mean more wheels or less wheels make a car go faster?*

# Activity 1 - Friction

1. What is your definition of friction
2. What would happen if there is no friction on an object?
3. Do you think a circular car wheel (compared to a different shape) increases or decreases friction? Why?
4. If you move faster down the slide, does that mean there is more, or less friction?
5. Find two objects in your house. Use an applied force (pushing) to move them across the kitchen bench. Which object goes further and why?
6. Which has faster acceleration, an F1 car or a Superbike? Why?
7. Which has less friction and how do you know:
  - a) Sliding on the school hall in shoes
  - b) Sliding on the school hall in socks



## Air Resistance

Air resistance is what you feel when you wind down the window of a moving car. The air around the car is in constant contact and pushes/pulls the car in certain ways. The air resistance increases the faster that you move.

Watch this link on air resistance!

<https://www.youtube.com/watch?v=Z0eJBtAnUxY>

Explaining air resistance

Air resistance is a type of friction that occurs whenever an object moves through the air.

Which of these cars is more streamlined?

<http://www.bbc.co.uk/education/clips/z24pvcw>

<http://www.bbc.co.uk/education/clips/zj8sb9g>

[https://www.youtube.com/watch?v=nPSmZBmNI\\_k](https://www.youtube.com/watch?v=nPSmZBmNI_k)

# How do we decrease air resistance

One of the important aspects we need to do in building our Propellor-powered car is in air resistance.

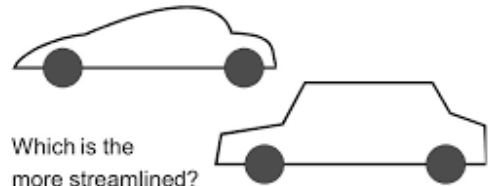
If we want to go faster, do we increase or decrease air resistance?

How do we increase/decrease air resistance?

If you want to know more, you should investigate why race cars and super cars look the way they do. Do they increase or decrease air resistance? How?

## Reducing air resistance

We can design the shape of an object, for example a car, so that it will pass through the air with little air resistance. This is called **streamlining**.



## Life Application

1-Rockets, aircrafts and trains are designed in streamline shapes to decrease air resistance.



## ACTIVITY 2 – AIR RESISTANCE

In this activity you can do several experiments to test air resistance.

Gravity affects all objects the same way. So all objects fall at the same speed, regardless of their weight. The only thing that changes the fall of an object is air resistance.

Falling faster = less resistance

Falling slower = more resistance

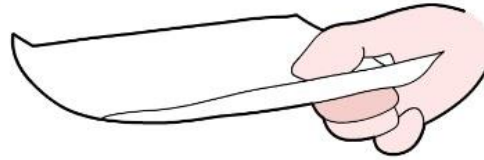
Check out the following slides to see the different types of experiments you can do that might help you with building your car!

## Experiment 1: Falling paper

### Air resistance

Try doing this quick air resistance experiment!  
Drop two pieces of paper from the same height,  
one flat and one crumpled up in a ball.

Plenary



Which piece of paper falls faster? Why?



## Experiment 2: The Tissue box and Ruler

**Step 1:** Hold a ruler by its tip next to a rectangular tissue box and drop them at the same time from a height of 2 meters or more.

Then compare



**Step 2:** Hold a ruler so the **flat side** is parallel to the floor next to a tissue box with the smaller side facing the floor and drop them at the same time from a height of 2 meters or more.



What hits the floor first and why? Why are the two different?

## Experiment 3: The falling shopping bag

Step 1: Get two plastic/paper bags that are exactly the same. Turn one upside down so it looks like a parachute, while the other bag is the normal way up.

Step 2: Drop both bags from a height of around 2 metres

Which one hits the ground first and why?

What is happening with the air in relation to the bags?



## Experiment 4: Observation of a vacuum

What happens to feathers when there is no air resistance?

Do they fall faster or slower than a bowling ball?

Check out the experiment below done at a NASA site.

<https://www.youtube.com/watch?v=E43-CfukEgs>

Why did the objects fall as they did?

How much impact does air resistance have on moving objects?



# Activity 3

Understanding how friction and air resistance will affect a moving object

1. Why does a flat piece of paper fall slower than one that is scrunched up?
2. Why would a face down pen fall faster than a book?
3. Why do faster cars look sleek?
4. What will make a car go faster:
  - a) Reduce air resistance and friction
  - b) Increase air resistance and friction
5. What could you do to your designed STEM car to help reduce air resistance?



How does this relate to our STEM project?

We have learnt about different types of forces and energies.

In your STEM project, you will need to use this knowledge to help design a propellor-powered car. It needs to be fast and powerful. Both energy and force are required to propel the car. You need to work out how to increase or decrease different forces and energies to maximise the potential of your car!

You will begin this upon your return to school.

There will be 3 areas of competition:

1. Fastest car over 5metres
2. Fastest car over 10metres
3. Longest running car

# Learning From Home

## Take-home Pack



Term 4 | Weeks 1-3

# PDHPE & Creative Arts

# Mind

# Body

# Care



Go for a walk/run/play with a trusted adult (Keep COVID-safe)

Play a board game with family or friends

Keep a daily gratitude journal

Build/make/fix something

Choose water as a drink.  
*And drink more of it!*

Go outside and stand/sit with your bare feet on/in a natural surface for at least 5 minutes

Look back at old photos/videos of when you were younger.  
Notice how amazing you are and how much you've changed!

Create and complete a 20-30 minute physical fitness circuit.  
*Challenge another family member to do it too!*

Limit your screen time to just your remote learning activities.

**JUST DANCE!**  
(You know what I mean!)

Try something new...  
Maybe a food, activity or chore

**Express Yo'self**

- Journaling
- Art
- Songwriting
- Poetry
- Flipgrid/Canva etc



# WRITE NOW

## MAIN COURSES

---

### THE CLASSIC / 10

Write a factual recount of your holidays

### THE CLASSIC WITH A TWIST / 20

Write an imaginative recount of your holidays

### BURGER TALK / 30

Write a recipe for a burger of your creation.

*PS: I'll have fries with that!*

### HEART-STARTER / 30

Write an article for a health and fitness magazine that will persuade people to reduce their screen time include more exercise in their daily lives.

*Max length - 1 A4 page.*

### CRYSTAL BALL / 40

Write a letter to your future, adult self reminding them of what life was like in 2021.

*Min. length - 1 A4 page*

## TASTERS

---

### THE OPENING / 20

Write an opening paragraph for a novel where you are the narrator.  
*Conditions apply: no weather or weapons allowed in the content*

### CHARACTERISATION/ 20

Write a description of a human character of your creation.  
*Tips: include physical attributes, personality, background, age etc optional extra: Draw an illustration*

### CONVERSATION / 30

Write a short script for a conversation between two people.

*Scenario ideas:*

- *meeting for the first time;*
- *opposing football team supporters;*
- *dentist and patient*

## DESSERTS

---

### HAIKU / 15

Write a Haiku based on a theme of your choice

### LIMERICK / 15

Write a limerick based on you!

### FREEFORM / 25

Take any form of poetry to write your own poem or create your own form of poetry!

## WRITING MENU

---

HOW MANY POINTS  
WILL YOU COLLECT?

*BON APPETIT!*

# CAPA Activity Options

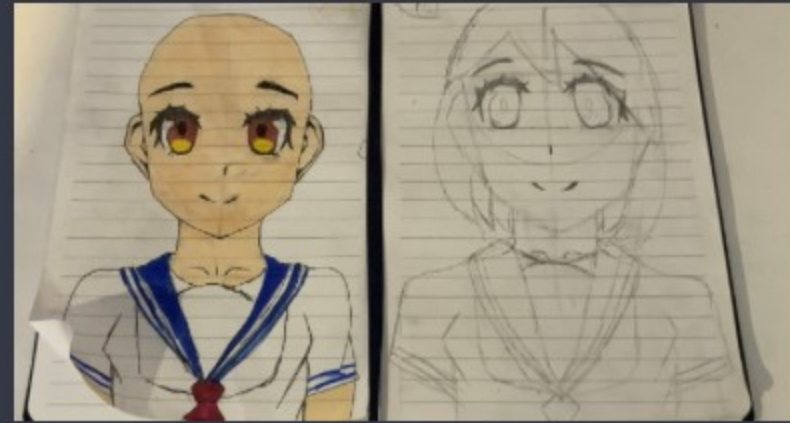


Use masking tape and pavement chalk to create an artwork inspired by the work of Melinda Harper.

Recreate the Dance of the Cygnets scene from the Swan Lake ballet. Your version can be beautiful or funny.



Learn to draw an anime-style portrait. Create a male and a female character.



Take photos of natural materials (stones, bark, leaves) and use 3 adjectives to describe the textures of each.

Memorise a poem and practice reciting it in a dramatic way before performing it to your family tonight.

Play charades with your family. For the sake of working household members, plan during the day to play at night.

Collect a variety of tins, lids and jars. Use them to make a drum kit. Experiment with sounds and record a beat. .



Search for the video Evolution of Dance - Dancing Through Time. Mimic the moves from the video. Repeat.

# PDHPE Activity Options

Make an obstacle course or exercise stations to move between, using different parts of the body.



Sit against the wall on an invisible chair. Hold a plank position with feet raised on a chair.,

Dance along to the film clip for Praise You by Fatboy Slim. It will get you moving and laughing.

Practice meditation and mindfulness through movement. Free online and Pilates lessons can guide you. .

Weed the lawn while you breathe fresh air and soak up some vitamin D from the sunshine.

Search for the Active @ Home lessons on the Department of Education website.



**What separates privilege from entitlement is gratitude.**

BRENE BROWN

Start a gratitude journal. Start by listing all the things you're thankful for.

Run, ride or skate laps of your block for 30 minutes. Stick to the path if you can.

Create a healthy meal plan for a whole week for the family and make a shopping list for it.