



Week 2 Term 4 Weekly Framework Stage 3

Below is a learning framework for you to follow at home. You should be able to complete each activity independently. If you need some assistance, ask for some help from a parent/carer or send a message to your teacher on GoogleClassroom. You are also able to access your Mathletics account. You can complete activities in your Homework book or an exercise book, some maybe submitted through your google classroom. Don't forget to write the date on your activities to keep track. Resources/worksheets/spelling words can be found at the end of this document under resources.

T4 Wk 2	Morning Session	Middle Session	Afternoon
<p>Monday</p>	<p style="text-align: center;">English Spelling</p> <p>Year 5 Spelling: I can use the graph /a/ making the sound “o” as in swan Year 6 Spelling: I can use the digraph /ou/ making the sound “ow” as in house</p> <p>Activity 1: Open the Term 4 Week 2 Spelling PowerPoint on your Google Classroom and follow the prompts.</p> <p>Activity 2: Fold your page into 4 columns (Mon-Thu) and write out your words for the week.</p> <p>Activity 3: Complete the SMART Spelling grid by reading the word aloud and separating the sounds in each word. This is where you can see what letters make specific sounds on their own or with others.</p> <p>EXTENSION: Can you find more challenging words in a dictionary or thesaurus that have the same focus? Remember that not every word that contains the same letters will make the same sound.</p> <p style="text-align: center;">Novel Study</p> <p>Year 5 are reading Charlie and The Chocolate Factory by Rohal Dahl</p> <p>Year 6 are reading Beetle Boy by M G Leonard.</p> <p>Detailed Lesson sheets are in the resource section.</p>	<p style="text-align: center;">Numeracy</p> <p style="text-align: center;">Mentals Ninja - Week 24 , lesson 1 Numeracy Ninja question sheets. (you can either print the sheet to write your answers on or just use the slide and write the answers down in a book.)</p> <p style="text-align: center;">Worded problem Mathroo 28</p> <p style="text-align: center;">Lesson</p> <p>Year 5 – Volume and capacity – millilitres and litres p.1 Year 6 – Volume and capacity – millilitres and litres p.1</p> <p>Fractions, decimals and percentages – Place value to thousandths p.21</p> <p>Mathletics online:</p> <p>Year 5 - Volume of solids and prisms using cm³, Litre conversions Year 6 - Litre conversions, Millilitres to litres, Capacity addition</p>	<p style="text-align: center;">Library</p> <p style="text-align: center;"><u>Design a Book cover</u></p> <p>If you were an Author what would you like to write a book about.</p> <p>Draw the front cover and don't forget to put your name at the bottom.</p> <p>Post them on Mrs Burke's Google Classroom. It is an assignment there.</p> <p>If you are not already a member use this code to join – 3if22ps</p> <p>Remember to use these as an extra activity anytime you would like to -</p> <p>Take a look at a quiz on World Book Online - https://www.worldbook.com.au/educators/workshhets/trivia-quizzes/</p>


T4 Wk 2	Morning Session	Middle Session	Afternoon
<p>Tuesday</p>	<p style="text-align: center;">English Spelling</p> <p>Year 5 Spelling: I can use the graph /a/ making the sound “o” as in swan Year 6 Spelling: I can use the digraph /ou/ making the sound “ow” as in house</p> <p>Activity 1: Copy out your Spelling words for the week under your <i>Tuesday</i> column.</p> <p>Activity 2: Colour coding Say the word aloud, write it down by colour coding as the following</p> <ul style="list-style-type: none"> - Consonant sounds in blue - Vowel sounds in red <p style="text-align: right; margin-right: 50px;"><i>creamy</i></p> <p style="text-align: center;">Handwriting</p> <p>Fluency and Legibility Learning Intention - Write using cursive. - Explore joins that facilitate fluency and legibility.</p> <p>Core Task: Review the five S's - slope, shape, size, spacing and style. Review correct pen/cil grip, book & sitting position/posture.</p> <p>Write the long date and copy the following in cursive: limit slime kettle minty enter zither element view west exert roof filter valley rave yelled waif claim etiquette racer loud reading</p> <p>There was a magnitude 6.9 earthquake in Armenia in 1988. Buildings crumbled, roads cracked and bridges collapsed. Afterwards a carton of eggs was spotted in the rubble. Not one has broken.</p> <p style="text-align: center;">Novel Study</p> <p>Year 5 are reading Charlie and The Chocolate Factory by Rohal Dahl</p> <p>Year 6 are reading Beetle Boy by M G Leonard.</p> <p>Detailed Lesson sheets are in the resource section.</p>	<p style="text-align: center;">Numeracy</p> <p style="text-align: center;">Mentals</p> <p style="text-align: center;">Ninja week 24, Lesson 2</p> <p>Question sheets. (you can either print the sheet to write your answers on or just use the slide and write the answers down in a book.)</p> <p style="text-align: center;">Worded problem Mathroo 28</p> <p style="text-align: center;">Lesson</p> <p>Year 5 – Volume and capacity – millilitres and litres p.2 Year 6 – Volume and capacity – millilitres and litres p.2 Fractions, decimals and percentages - Percentages p.22</p>	<p style="text-align: center;">BTN - Comprehension</p> <p style="text-align: center;">Threatened Species Story</p> <p>https://www.abc.net.au/btn/classroom/threatened-species-day/13524114</p> <p>Answer the focus questions on page one of the accompanying PDF document:</p> <p>https://www.abc.net.au/cm/lb/13524094/data/threatened-species-day-%25E2%2580%2593-teacher-resource-%28pdf%29-data.pdf</p> <p>There is a great variety of activities in the fact sheet. You might choose to do another activity other than the focus questions.</p>





[Year 5 Zoom](#)

Wellbeing Wednesday

[Year 6 Zoom](#)

<p>Try a new cookie or cake recipe. Bonus idea: Set up a camera or smartphone and film a cooking show!</p>	<p>Make paper airplanes and see whose plane flies the farthest.</p>	<p>Organise a zoom meeting with some friends and have a chat...or just call someone on the phone for a chat.</p>	<p>Design and go on an indoor treasure hunt.</p>	<p>Find a flower or a plant that you like in the garden. Look at it really carefully - now draw exactly what you see. Try drawing the same plant everyday for a week.</p>
<p>Look through old photo albums of your younger years or the younger years of your family.</p>	<p>Take all your clothes out of your cupboard. Reorganise them, carefully fold them up and put them back carefully. Having clean and tidy things makes you feel good.</p>	<p>At night, try to find constellations - Scorpius and the Southern Cross. As the sun sets look for Venus setting in the west, with Jupiter and Saturn above your head. When it is dark, look for the Milky Way - a band of cloudiness across the sky.</p>	<p>Play the gummy bear game (using dice and 5 gummies each. Roll a 1 you eat one in your pile, a 2 you pass one bear to your left, a 3 you pass to your right, a 4 you keep it, a 5 you eat it, a 6 you keep it – keep playing till the gummies are gone!</p>	<p>Ask your parents or grandparents to suggest one of their favourite bands or singers that you have never heard before. Listen and see if you like some of it...or all of it!</p>
<p>Put up a tent in the back garden. Perhaps your parents will let you sleep outside? Remember a torch.</p> <p>Don't forget to look at the moon and the stars. Have you seen a shooting star?</p>	<p>A leisurely bike ride is a great way to spend time together while boosting your health.</p>	<p>Make something creative with a sibling using lego, playdough, or anything else you may have at home.</p>	<p>Find a location where it is easy to watch the sunrise and spend a few minutes watching the sun. The morning sun energizes you and fills you with positive energy.</p>	<p>Have a Living Room disco – play freeze, musical chairs, have a dance off</p>

T4 Wk 2	Morning Session	Middle Session	Afternoon
<p>Thursday</p>	<p style="text-align: center;">English Spelling</p> <p>Year 5 Spelling: I can use the graph /a/ making the sound “o” as in swan Year 6 Spelling: I can use the digraph /ou/ making the sound “ow” as in house</p> <p>Activity 1: Copy out your Spelling words for the week under your <i>Thursday</i> column.</p> <p>Activity 2: Word Endings & Antonyms Can you add any of these endings to any of your spelling words? (<i>ing, est, ful, ed, er</i>). Are there any words you can write the opposite meaning for?</p> <p style="text-align: center;">Writing Poetry</p> <p>When writing stories or poems you can plot them on the Story Graph. This is a tool to ensure that you have included every element into your work. Let’s look at some poems and see how they can be plotted onto the Story Graph.</p> <p>Ali Cobby Eckermann shares the story of her birth and Aboriginal heritage.</p> <p>This is quite a challenging video, but very important truth telling about what happened to Aboriginal people in the past.</p> <p>https://www.youtube.com/watch?v=bmDc6X1FKTc</p> <p>Read the poem and then look at how it has been plotted onto the story graph.</p> <p>Present students with a blank story graph, and ask them to try to plot independently before you look at the one that has been completed.</p>	<p style="text-align: center;">Numeracy</p> <p style="text-align: center;">Mentals</p> <p>Numeracy Ninja question sheets. (you can either print the sheet to write your answers on or just use the slide and write the answers down in a book.)</p> <p style="text-align: center;">Worded problem Mathroo 28</p> <p style="text-align: center;">Lesson</p> <p>Year 5 – Volume and capacity – cubic centimetres and metres p.3 Year 6 – Volume and capacity – cubic centimetres and metres p.3 Fractions, decimals and percentages - Percentages p.23</p> <p style="text-align: center;">Music</p> <ul style="list-style-type: none"> · Play audio of William Tell Overture: Finale. · Can you recognise any instruments you hear? <p>https://www.storyblocks.com/audio/search/william+tell+overture+free</p> <p style="text-align: center;">What does the William Tell Overture represent?</p> <p>The overture was designed to present the day in the life of a Switzerland in revolt. The prelude, named “Dawn,” starts with a slow, solo passage for the cello. As the piece accelerates, it moves into the second part, “Storm,” with the entire orchestra now fully present.</p>	<p style="text-align: center;">Science Comprehension</p> <p>Watch the video below about our solar system and answer the following questions. The questions are also in the word document provided. Please answer in full sentences.</p> <p style="text-align: center;">https://www.inquisitive.com/video/1014-cruise-the-solar-system</p> <ol style="list-style-type: none"> 1. What does the solar system consist of? 2. What is an asteroid belt? 3. Name the gas giants 4. What marks the end of the solar system? 5. What can you tell me about Voyager 1 space probe? 6. What do astronomers use to measure space? 7. How far away is Pluto from the sun? 8. How far away can the sun’s gravity capture objects? 

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Friday	<p style="text-align: center;">English - Spelling</p> <p>Year 5 Spelling: I can use the graph /a/ making the sound “o” as in swan Year 6 Spelling: I can use the digraph /ou/ making the sound “ow” as in house</p> <p>Activity 1: Have a member of your family test you on your weekly spelling words.</p> <p>Activity 2: Complete your word search for the week.</p> <p style="text-align: center;">English - Grammar</p> <p>Learning Intention: To identify prepositions in sentences. Preposition: A preposition tells you either where or when something occurs.</p> <ol style="list-style-type: none"> Please download and work through the Worm Prepositions PPT, where you use prepositions to describe the worm’s position in relation to other objects. Download and complete the Yr 6 Grammar Revision Quiz (PPT) to test your knowledge and understanding of prepositions. Complete the attached prepositions worksheet. <div style="display: flex; justify-content: space-around; align-items: center;">    </div> <p style="text-align: center;">English - Writing</p> <p>Dreamers <small>BY SIEGFRIED SASSOON</small></p> <p>Soldiers are citizens of death's grey land, Drawing no dividend from time's to-morrows. In the great hour of destiny they stand, Each with his feuds, and jealousies, and sorrows. Soldiers are sworn to action; they must win Some flaming, fatal climax with their lives. Soldiers are dreamers; when the guns begin They think of firelit homes, clean beds and wives.</p> <p>I see them in foul dug-outs, gnawed by rats, And in the ruined trenches, lashed with rain, Dreaming of things they did with balls and bats, And mocked by hopeless longing to regain Bank-holidays, and picture shows, and spats, And going to the office in the train.</p> <p>Read this poem by Sigfred Sassoon about soldiers enduring war. Have a go at plotting onto the story graph and compare your effort with the one provided as a guide. Have a go at writing your own poem using this format.</p>	<p style="text-align: center;">Numeracy</p> <p style="text-align: center;">Mentals</p> <p>Numeracy Ninja question sheets. (you can either print the sheet to write your answers on or just use the slide and write the answers down in a book.) Week 24, lesson 4</p> <p style="text-align: center;">Worded problem Mathroo 28</p> <p style="text-align: center;">Lesson</p> <p>Year 5 – Volume and capacity – cubic centimetres and metres p.4 Year 6 – Volume and capacity – cubic centimetres and metres p.4 Match and snap p.24</p>	<p style="text-align: center;">Art Perspective Drawing</p> <ol style="list-style-type: none"> Use A4 paper in landscape format. All you then need is a pencil, eraser and a 30cm ruler Watch the video link below and follow the instructions. This is a directed drawing lesson where you will be learning about perspective and vanishing points. Take a photo of your artwork and turn it in. <div style="text-align: center;">  </div> <p>https://www.bing.com/videos/search?q=art+activities+for+primary+school&&view=detail&mid=54CDBE4EF5E7473D284954CDBE4EF5E7473D2849&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3Dart%2Bactivities%2Bfor%2Bprimary%2Bschool%26FORM%3DHDRSC3</p> <p style="text-align: center;">Extension Art (Using Tone and shading)</p> <p>If you want a further challenge click on the following link and complete the drawing activity. You may wish to use a 2B pencil for shading</p> <p>https://www.bing.com/videos/search?q=artwork+using+2+vanishing+points+directed+drawing&&view=detail&mid=E942991755D1130D7B3AE942991755D11</p>



Sport challenge for Weeks 1 to 6

We want you to get outside and get your heart pumping!



Make time every day to spend at least 30 minutes outside doing something active.

We have been learning in our health lessons about the importance of, 'Me time', fresh air and exercise and the important role it plays in maintaining not just your physical health but your mental health as well. Here are some ideas but do something that works for you and your family. There is no set time, just find the time that works best for you; this could be in the morning, middle session, afternoon, or evening. Keep a record of how often you achieve this and how you feel after you do.

Go for a bike ride.

Learn to skateboard, scooter, roller skate, roller blade .

Play tennis.

Make an obstacle course.

Grab a dice and paper and make a physical activity game.

Go for a walk/ walk the dog

Mediate

Yoga

Dancing

Gymnastics

Jump on a trampoline

strength training

Skipping

Football, netball, soccer, cricket, basketball skill practice

Cheer practice

Stretching

Play ping pong



BALL IS LIFE



Spelling

Year 5 Term 4 Week 2 Spelling Words

Spelling Focus Words		Sight Words	Challenge Words
swan wanted yacht quarry halter	washed watch wallet waft squad	matter orbit planets universe celestial	quarantine qualification squabble quarrel squadron

Year 6 Term 4 Week 2 Spelling Words

Spelling Focus Words		Sight Words	Challenge Words
discount mountain blackout paramount accountant	council impound denounce flounder profound	matter orbit planets universe celestial	accountability mouthpiece scoundrel confound announcement

The *SMART* Spelling Grid

Name: _____

Write, say, sound, count, write.

1. Write the word
2. Say the word
3. Sound it out
4. Count the sounds
5. Write the letters, then write the tricky part again

Write the word Say the word	How many sounds?	Write the letters: broken up into graphs, digraphs, trigraphs etc.									Tricky part?
weekend	6	w	ee	k	e	n	d				ee

Year 5 Week 2 Word Search

M	H	W	A	S	H	E	D	Y	O	K	M	Q	L	J	T	F	N	M	C
U	A	I	H	R	U	N	I	V	E	R	S	E	D	A	D	W	B	W	S
Q	G	T	E	Y	R	O	T	X	C	Q	U	A	R	R	E	L	X	N	Q
E	G	J	T	Q	I	A	K	A	Q	T	J	T	Q	E	Q	T	O	S	U
N	R	A	Y	E	B	M	P	Q	W	A	F	T	J	F	Y	I	F	O	A
V	T	H	Z	Q	R	I	Q	Q	H	S	R	G	D	E	T	Y	F	S	D
Y	F	A	H	Z	D	I	B	X	M	W	V	J	O	A	W	E	X	M	B
L	U	L	A	B	X	C	C	Q	D	A	H	Z	C	O	L	Z	D	M	T
A	T	T	R	V	C	N	W	C	U	N	X	I	V	B	O	D	F	P	Q
R	A	E	U	R	D	E	U	Z	K	A	F	I	B	C	Q	Y	M	L	V
H	Q	R	Z	Y	B	Q	L	S	V	I	R	A	S	V	I	Y	R	A	Q
R	P	T	V	X	C	W	J	E	L	A	U	A	V	W	R	Z	F	N	S
T	C	F	Y	M	H	L	E	A	S	Q	W	S	N	R	A	I	H	E	R
D	W	X	L	A	S	B	U	R	S	T	F	Q	A	T	O	N	R	T	S
J	F	S	N	N	C	Q	Q	T	Q	B	I	U	H	H	I	J	T	S	D
Z	V	P	B	R	D	H	E	Z	U	T	Q	A	S	L	G	N	B	E	M
Z	V	N	Z	H	M	L	T	X	I	W	T	D	L	R	E	X	E	K	D
W	O	V	T	F	L	S	L	B	E	M	T	R	B	S	W	A	T	C	H
O	Q	U	U	A	R	Q	R	D	U	H	Q	O	R	A	U	J	P	P	B
F	M	P	W	R	C	O	X	L	H	L	Q	N	B	J	A	R	G	M	I

QUALIFICATION

SQUADRON

QUARREL

WANTED

QUARRY

SQUAD

WAFI

QUARANTINE

SQUABBLE

PLANETS

WASHED

MATTER

ORBIT

SWAN

UNIVERSE

CELESTIAL

WALLET

HALTER

WATCH

YACHT

Year 6 Week 2 Word Search

L	L	N	T	U	S	C	O	U	N	D	R	E	L	B	G	S	B	K	Y
J	I	Q	G	V	G	C	Y	B	L	H	B	B	L	A	C	K	O	U	T
R	Z	Z	G	F	W	I	G	G	T	S	R	Z	V	Y	R	Y	J	P	R
X	D	N	T	F	P	C	A	N	W	C	Z	W	Y	X	O	Y	D	R	G
E	J	D	T	K	O	M	Z	G	Q	Y	E	J	L	R	T	H	G	O	A
E	W	D	I	S	C	O	U	N	T	O	C	H	J	I	R	J	E	F	C
R	A	N	N	O	U	N	C	E	M	E	N	T	L	W	J	M	E	O	C
T	C	Y	N	H	U	S	F	M	P	Q	R	I	H	O	G	C	D	U	O
M	E	B	E	Z	P	Z	Q	L	D	R	B	P	D	V	N	Q	G	N	U
O	L	S	M	J	I	P	A	N	O	A	D	J	Z	U	V	V	J	D	N
U	E	U	Z	O	X	M	U	W	T	U	R	Z	O	I	J	R	L	V	T
N	S	T	K	G	U	O	P	N	U	O	N	N	R	L	Z	J	S	T	A
T	T	U	I	L	F	T	U	O	S	N	E	D	I	S	O	Q	N	L	N
A	I	C	O	N	Q	O	H	B	U	D	I	C	E	K	K	U	M	M	T
I	A	U	O	R	C	D	Y	P	C	N	N	V	F	R	O	C	L	A	K
N	L	C	O	C	B	N	W	U	I	U	D	N	E	M	Z	O	Q	T	O
X	Y	D	A	X	L	I	C	O	O	E	Y	E	A	R	D	M	F	T	Y
T	S	O	C	P	Q	Y	T	C	Z	T	C	R	D	A	S	R	B	E	J
V	P	L	K	D	V	E	F	N	U	W	A	E	D	E	A	E	L	R	Y
U	P	L	A	N	E	T	S	I	K	P	X	Z	G	G	U	B	I	J	X

ACCOUNTABILITY

MOUHPICE

MOUNTAIN

DISCOUNT

DENOUNCE

IMPOUND

MATTER

ANNOUNCEMENT

PARAMOUNT

UNIVERSE

PROFOUND

BLACKOUT

COUNCIL

ORBIT

ACCOUNTANT

SCOUNDREL

CONFOUND

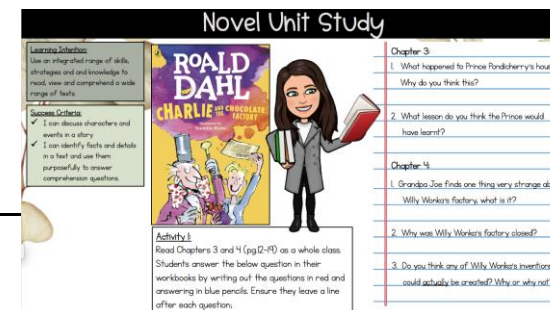
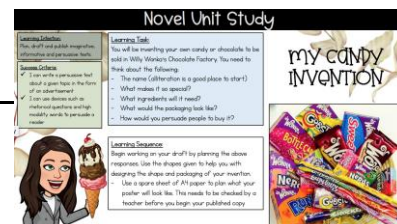
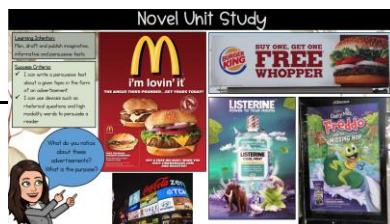
FLOUNDER



CELESTIAL

PLANETS

Year 5 Charlie and the Chocolate Factory

Week	Lesson 3 Monday	Lesson 4 Tuesday
2	<p>Learning Intention: Plan, draft and publish imaginative, informative and persuasive texts, choosing and experimenting with text structures, language features, images and digital resources appropriate to purpose.</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> - I can write a persuasive text about a given topic in the form of an advertisement - I can use devices such as rhetorical questions and high modality words to persuade a reader <p>Learning Sequence:</p> <ul style="list-style-type: none"> - Look at the visual advertisement posters on your PowerPoint slide - What do you notice? What is the purpose of this poster? What is it trying to get you to buy/make/visit etc.? What catches your eye <u>first</u>? - Highlight the vocabulary used and discuss the effect it has on a reader. - Introduce the modality words display and discuss what students notice about the high, middle and low words <p>Learning Task: Students will be inventing their own candy or chocolate to be sold in Willy Wonka's Chocolate Factory. They need to think about the following;</p> <ul style="list-style-type: none"> - The name (alliteration is used frequently in the text) - What makes it so special? - What ingredients does it contain? - What would the packaging look like? <p>Students begin working on their draft poster and use the shapes given to design what their invention looks like. They need to use a spare sheet of A4 paper to plan what their poster will look like. This needs to be checked by a teacher, as well as any writing that will be displayed.</p>	<p>Learning Intention: Use an integrated range of skills, strategies and knowledge to read, view and comprehend a wide range of texts.</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> - I can discuss characters and events in a story - I can identify facts and details in a text and use them purposefully to answer comprehension questions. <p>Learning Sequence:</p> <ul style="list-style-type: none"> - Open the <i>Lesson 4- Chapters 3 and 4</i> video on your Google Classroom and listen to one of your teachers read the chapters aloud. You can follow along if you have your own copy of the book. - After listening, answer the below questions in your book by writing out the questions in red and answering in blue/black pen. Ensure you leave a line after each question; <p>Chapter 3:</p> <ol style="list-style-type: none"> 1. What happened to Prince Pondicherry's house? Why do you think this? 2. What lesson do you think the Prince would have learnt? <p>Chapter 4:</p> <ol style="list-style-type: none"> 1. Grandpa Joe finds one thing very strange about Willy Wonka's factory, what is it? 2. Why was Willy Wonka's factory closed for a while? 3. Do you think any of Willy Wonka's inventions could <u>actually</u> be created? Why or why not?



Week	Lesson 1 Monday	Lesson 2 Tuesday
2	<p>Learning Intention: Use an integrated range of skills, strategies, and knowledge to read, view and comprehend a wide range of texts.</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> ✓ I can discuss characters and events in a story ✓ I can identify facts and details in a text and use them purposefully to answer comprehension questions. <p>Learning Sequence:</p> <ul style="list-style-type: none"> - Revise the lessons from previous week. Slide 9 and discussion - Discuss the characters that they have met- slide10-12 <p>Learning Task:</p> <ul style="list-style-type: none"> - Students are to start character profiles these can be done on a google slide or in a book. This is to be added to the google slides or into the workbook. Slides 10-12 - Write concise headlines to describe Darkus' dad's disappearance <u>in order to</u> write a newspaper headline. No more than 6 words. - Slides 13 & 14 	<p>Learning Intention: Use an integrated range of skills, strategies, and knowledge to read, view and comprehend a wide range of texts.</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> ✓ I can discuss characters and events in a story ✓ I can identify facts and details in a text and use them purposefully to answer comprehension questions. <p>Learning Sequence:</p> <p>Recap the four chapters that the students have read.</p> <p>Learning Task:</p> <ul style="list-style-type: none"> - Reading Comprehension: - Answer the questions on slides 15-16 <p>Chapter 1</p> <p>In the first paragraph, how do the sentence descriptions of Bartholomew Cuttle show what type of person he is? What impression do you get of him? Where does Dr Bartholomew Cuttle work and what is his job there? According to the police report, on which date did Dr Cuttle go missing? What do you think 'coleoptera specimen' might be? Whose perspective is the story told <u>from</u>? Find and copy the word on Page 15 that is a synonym to describe how much Darkus feels heartbroken.</p> 



Teacher Resource

Threatened Species Day

Focus Questions

1. Discuss the Threatened Species Day story in pairs. Record the main points of the discussion.
2. Australia has the world's second biggest collection of species of plants and animals that are found no-where else in the world. True or false?
3. About how many native plant and animal species in Australia are threatened?
 - a. 19
 - b. 190
 - c. 1,900
4. What are some threats to native species?
5. What is the conservation status of the Orange-bellied parrot?
6. What are the threats to the Orange-bellied parrot?
7. How many of the species are left in the wild?
8. When did the Tasmanian tiger become extinct?
9. What can people do to help protect threatened species and their habitats?
10. What questions do you have about this story?

Activity: Class Discussion

After watching the BTN story as a class, respond to the following questions:

- What did you SEE in this video?
- What do you THINK about what you saw in this video?
- What does this video make your WONDER?
- What did you LEARN from this story?

Hold a class discussion about the information in the BTN Threatened Species Day story. Use the following questions to guide discussion:

- What are some threats to native species?
- Why is it important to protect and conserve living things?
- What is biodiversity and why is it important?
- What questions do you have about this story?

EPISODE 26

7th September 2021

KEY LEARNING

Students will learn more about the importance of preserving threatened species of plants and animals.

CURRICULUM

Science – Year 4

Living things have life cycles.

Living things, including plants and animals, depend on each other and the environment to survive.

Science – Year 5

Living things have structural features and adaptations that help them to survive in their environment.

Scientific knowledge is used to inform personal and community decisions.

Science – Year 6

The growth and survival of living things are affected by the physical conditions of their environment.

Activity: Match these terms to their definitions

Term	Definition
Threatened species	<i>This species is facing a high risk of extinction in the wild in the medium-term</i>
Extinct	<i>There is no immediate threat to the survival of this species</i>
Least concern	<i>This species is facing a very high risk of extinction in the wild in the near future</i>
Vulnerable species	<i>This species may be considered threatened in the near future</i>
Endangered	<i>This species is no longer in existence</i>
Near threatened	<i>Species that only grow or live in captivity or they are no longer living in their normal habitat</i>
Extinct in the Wild	<i>A species that may be considered threatened with extinction in the near future</i>



Activity: Threatened Species Research

After watching and discussing the BTN Threatened Species Day story, what questions do students have and what are the gaps in their knowledge? They can develop their own question/s to research or select one of the questions below.

- What is causing species loss? Explore issues such as habitat loss, introduced species, pollution, population growth and overharvesting/hunting.
- Which species have become extinct in modern times? Choose a species to investigate in depth and create a news report explaining how the species became extinct.
- What happens when an animal becomes extinct? If one species in the food chain becomes extinct how would it affect the rest of the chain? Choose an endangered species and explore its role in the food chain.
- Who do you think should be responsible for addressing the problem of species loss? List some of the responsibilities of individuals, communities and the government.

Activity: Threatened Species Research Project

Students will choose a threatened Australian species (plant or animal) to learn more about (they may want to choose one that is local to their area). Use the template below to help guide their research.

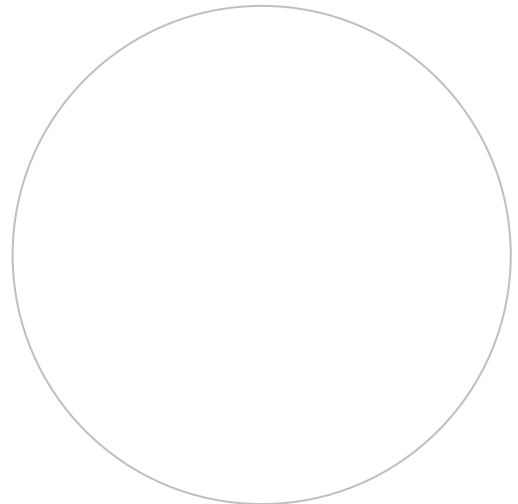
COMMON NAME:

SCIENTIFIC NAME:

APPEARANCE:

POPULATION:

THREATS TO SPECIES:



Illustration/photo

CONSERVATION STATUS (highlight):

Least concern	Near threatened	Vulnerable	Endangered	Critically endangered	Extinct in the wild	Extinct
LC	NT	VU	EN	CR	EW	EX

RECOVERY ACTION (WHAT IS BEING DONE TO PROTECT THE SPECIES)

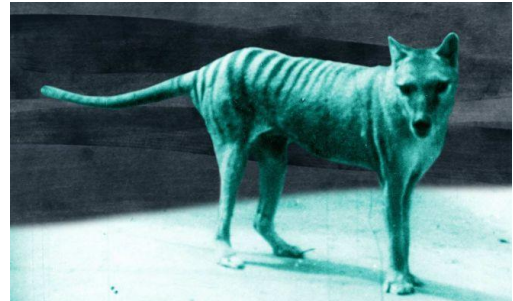
INTERESTING FEATURES OR FACTS:

Activity: Threatened Species Day

Threatened Species Day was declared in 1996 to commemorate the 60th anniversary of the death of the last remaining Tasmanian tiger (thylacine). Threatened Species Day is a time to think about what happened in the past and how we can prevent other native plants and animals from becoming extinct.

Watch the [BTN Tassie Tiger story](#) then respond to the following questions:

- What evidence is there that the thylacine is extinct?
- What impact did European settlers have on the thylacine?
- What can we learn from the extinction of the thylacine?
- How will our knowledge of the thylacine help us make informed decisions about species preservation?








Activity: Who am I?

Students will make their own *Who am I?* game to learn more about endangered Australian animals or plants. There is an example at the end of this activity.

- Students will research and write 5 clues to correspond with each animal/plant in the *Who am I?* worksheet at the end of this activity, with the first clue being the hardest and the last clue being the easiest.
- Include clues about their appearance, conservation status etc.
- Students will test their game on a partner.

Who am I?

Choose 5 endangered Australian animals or plants or use the five animals below. Write 5 clues to correspond with each animal/plant. Include clues about their appearance, conservation status etc. Cut up the cards and test a partner to see if they can match the animal to the clues.

	Who am I? • • • • •
	Who am I? • • • • •
	Who am I? • • • • •
	Who am I? • • • • •
	Who am I? • • • • •

Images: 1. Australia conservation; 2. Orange bellied parrot; 3. Tasmanian devil; 4. Eastern quoll; 5. Gilbert's parakeet

Activity – Citizen Science

Become the greatest bio-adventurer of all time! Download the [QuestaGame](#) app then discover and help preserve species by taking photos and submitting them. They'll score gold for every sighting and extra gold if they can find something rare or interesting. The information is shared with [CSIRO's Atlas of Living Australia](#) and the [Global Biodiversity Information Facility](#) which helps researchers understand how we can protect biodiversity.



Useful Websites

- [Threatened Species Day](#) – NSW Department of Environment
- [National Threatened Species Day](#) – WWF

Activity: Threatened Species stories

Students can watch one or more of the BTN stories below to learn more about threatened species.



[Endangered Seeds](#)



[Threatened Flora](#)



[Frog spotting](#)



[Koala Threat](#)



[Species List](#)



[Plant Bank](#)



[Extinction Report](#)



[Insect Extinction](#)

Who am I?

Choose 5 endangered Australian animals or plants or use the five animals below. Write 5 clues to correspond with each animal/plant. Include clues about their appearance, conservation status etc. Cut up the cards and test a partner to see if they can match the animal to the clues.



Who am I?

-
-
-
-
-



Who am I?

-
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-
-
-



Who am I?

-
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-
-



Who am I?

-
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-
-



Who am I?

-
-
-
-
-

Images: 1 Southern corroboree frog 2. Orange-bellied Parrot 3. Northern hairy-nosed wombat 4. Spear-tooth shark 5. Gilbert's potoroo

Circles and Squares

I was born Yankunytjatjara
My Mother is Yankunytjatjara
Her Mother was Yankunytjatjara
My Family is Yankunytjatjara

I have learnt many things from my Family Elders
I have grown to realize that my Life travels in Circles
My Aboriginal Culture has taught me that
Universal Life is Circular

When I was born I was not allowed to live with my Family
I grew up in the white man's world

We lived in a Square house
We picked fruits and vegetables from neatly fenced Square plot
We kept animals in Square paddocks
We sat and ate at a Square table
We sat on Square chairs
I slept in a Square bed

I looked at myself in a Square mirror and did not know who I was

But this time I sat down with Family

We gathered closely together by big Round camp fires
We ate bush tucker, feasting on Round ants and berries
We ate meat from animals that lived in Round burrows
We slept in Circles on beaches around our fires
We sat in the dirt, on Our land, that belongs to a big Round planet
We watched the Moon grow to a magnificent yellow Circle

That was Our Time

I have learnt two different ways now

I am thankful for this

That is part of my Life Circle

My heart is Round like a drum, ready to echo the music of my Family

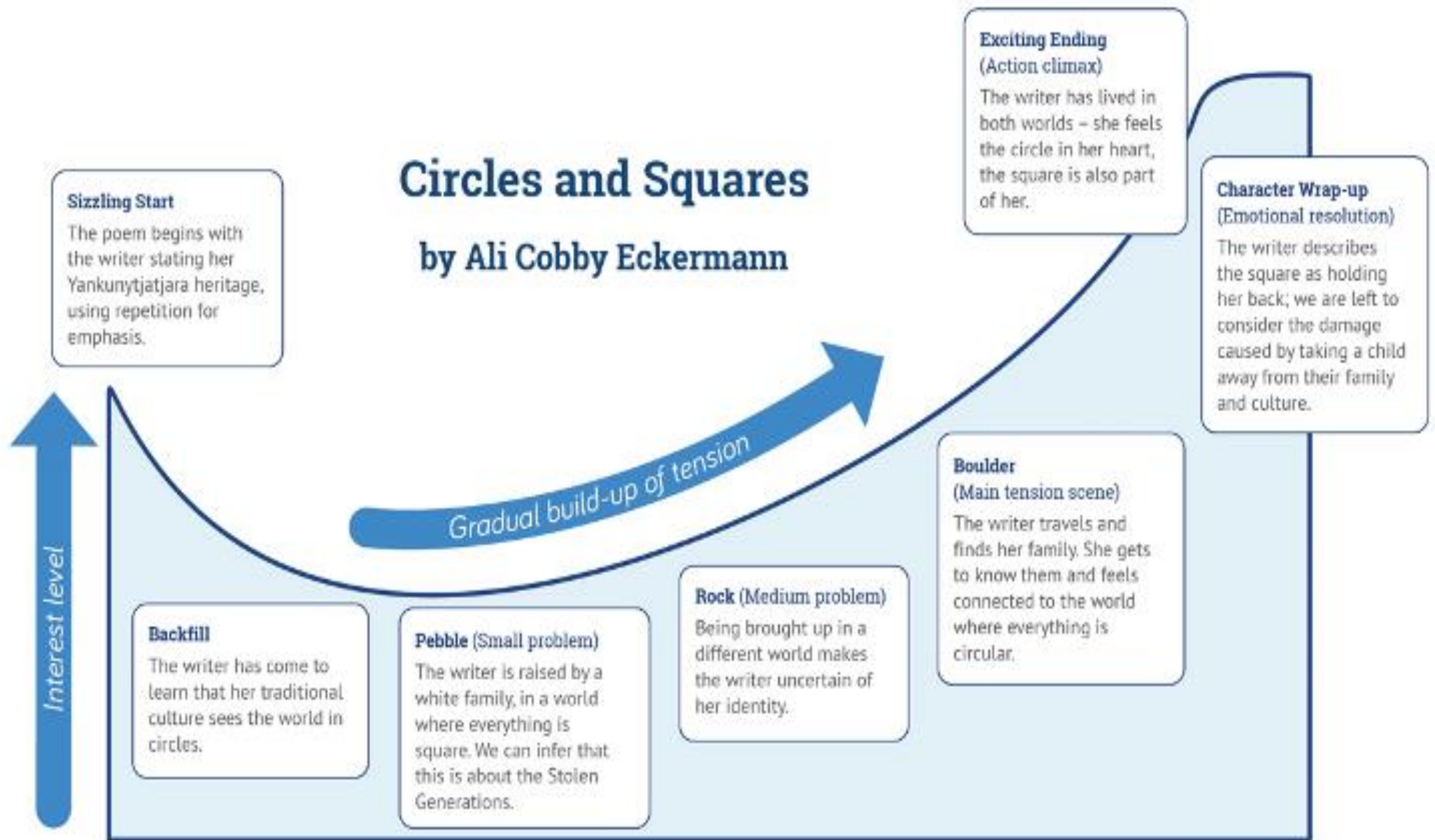
But the Square within me still remains

The square hole stops me in my entirety

Ali Cobby Eckermann

Circles and Squares

by Ali Cobby Eckermann



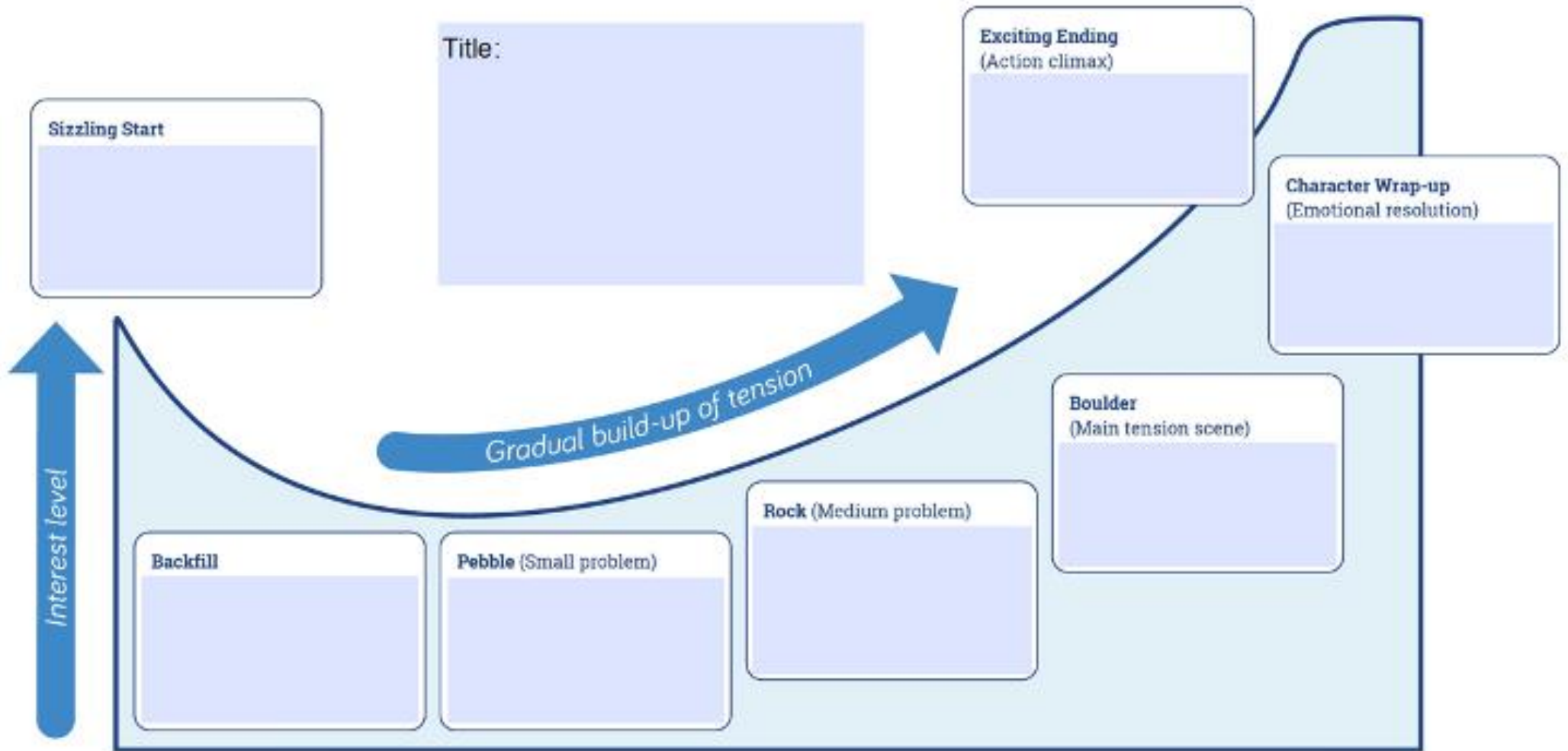
Dreamers

BY SIEGFRIED SASSOON

Soldiers are citizens of death's grey land,
Drawing no dividend from time's to-morrows.
In the great hour of destiny they stand,
Each with his feuds, and jealousies, and sorrows.
Soldiers are sworn to action; they must win
Some flaming, fatal climax with their lives.
Soldiers are dreamers; when the guns begin
They think of firelit homes, clean beds and wives.

I see them in foul dug-outs, gnawed by rats,
And in the ruined trenches, lashed with rain,
Dreaming of things they did with balls and bats,
And mocked by hopeless longing to regain
Bank-holidays, and picture shows, and spats,
And going to the office in the train.

Narrative Story Graph



Dreamers

by Siegfried Sassoon

Sizzling Start

The poem begins with a metaphor: 'Soldiers are citizens of death's grey land.'

Interest level

Backfill

No backfill is given. These could be any soldiers, though later the writer mentions dug-outs and trenches.

Pebble (Small problem)

The writer is cynical/bitter when he describes how soldiers are expected to serve and die in war.

Rock (Medium problem)

The soldiers dream of the simple pleasures of home. This makes us reconsider the word 'dreamer' and what we thought it meant.

Exciting Ending (Action climax)

The mundane things the soldiers long for are so far from the war that it's almost comical, which makes it even sadder.

Character Wrap-up (Emotional resolution)

We are left to think about the soldiers who missed out on an ordinary life, and to consider the everyday things that we might take for granted.

Boulder (Main tension scene)

The writer paints a vivid word picture of life in the trenches and contrasts this with the memory of playing sport.

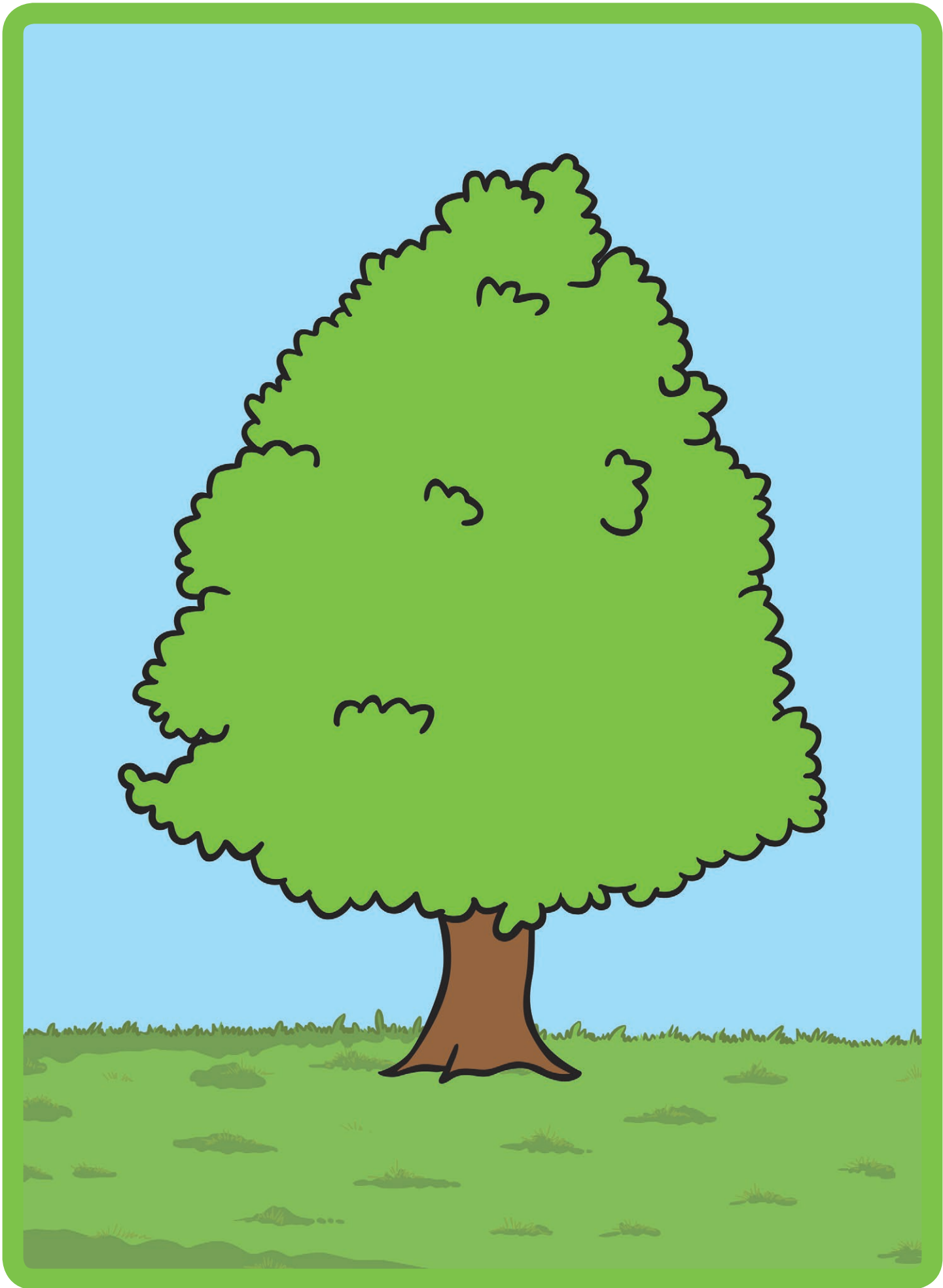
Gradual build-up of tension

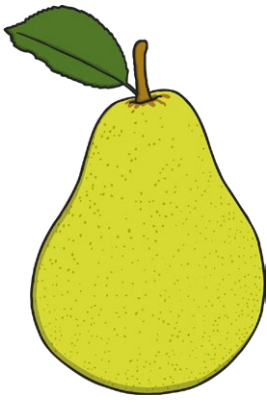
What is the Solar System?

After watching the video, answer the following questions in complete sentences.

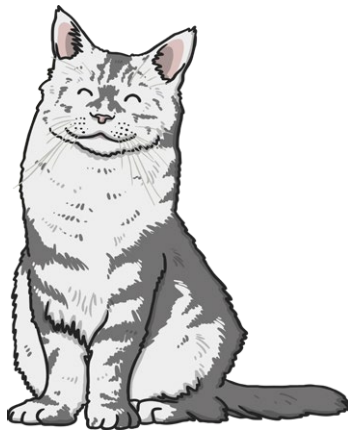
1. What does the solar system consist of?
2. What is an asteroid belt?
3. Name the gas giants
4. What marks the end of the solar system?
5. What can you tell me about the Voyager 1 space probe?
6. What do astronomers use to measure space?
7. How far away is Pluto from the sun?
8. How far away can the sun's gravity capture objects?



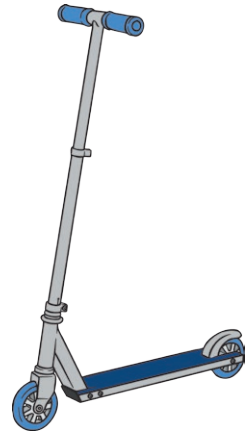




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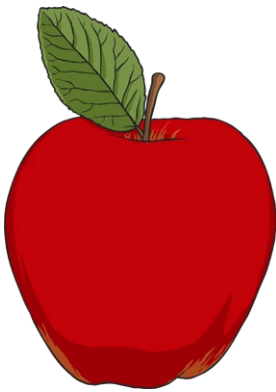
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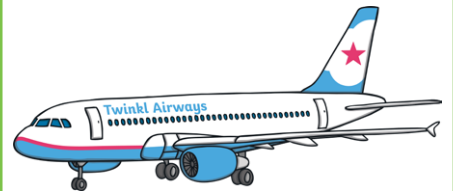
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Put the scooter
under the tree.

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Put the bird
between the pear
and the tree.

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Put the cat
in the tree.

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Put the ball
on the scooter.

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Put the pear
beside the tree.

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Put the dog
below the tree.

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Put the apple
in front of the tree.

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Put the aeroplane
above the tree.

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Put the monster
over the tree.

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Preposition

Start

On



In



Under



Beside



Go back two spaces.

In front of

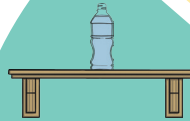


Behind

Between



On



Next to



Outside



Move forward 3 spaces.

Inside



In



Under



Go back one space.

Beside



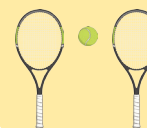
In front of



Behind



Between



Move forward two spaces.

Finish!

Under



In



On



Next to



Outside



Inside



Learning Intention: To identify prepositions in sentences.

Preposition: A preposition tells you either **where** or **when** something occurs.

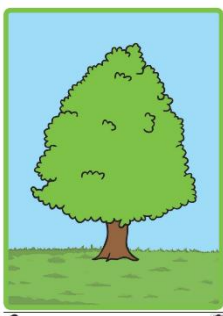
Activity 1: Decide if the following words are or are not prepositions:
angry, before lunch, after school, and, under, threw, beside, decide, in

Activity 2: Read the following passage and identify as many prepositions as you can.

George took his dog Sally for a walk along the canal. Sally waited beside the road. They walked across the road. Together, they went through a tunnel and over a stile. George threw Sally's ball toward the tall grass and it landed in the river. Sally swam through the water and dived underneath the surface to get the ball. She ran back to George and dropped the ball in front of him for another turn. She dropped it from her mouth when she returned next to him. After sunset, they went home and snuggled on the couch beneath a cosy blanket.

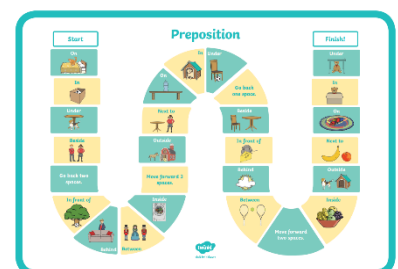


Activity 3: Choose one of the following options (or both).



Preposition Tree Game: Print off the following activity, use the prepositions in the instruction cards to place objects (picture cards) at certain positions around the tree. As you follow each instruction, you are to identify the preposition you have used.

Prepositions board game: Play the preposition board game where you roll a dice and move a certain number of spaces. Once a player has rolled/moved, you must write a sentence and include the preposition you have landed on.
Challenge: Can you turn that sentence into a compound or complex sentence.





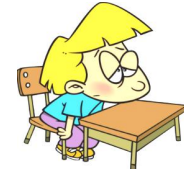
Student Name: _____

Grade: _____ Date: _____

1. A new ABBA virtual concert will be held in a three-thousand seat arena. Write that number down in figures.

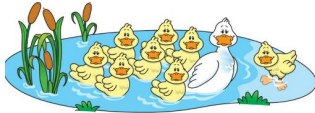


2. There were 3 kookaburras and 13 crows sitting on a fence. Then a loud noise scared 7 of the birds away. How many birds were still sitting on the fence?



4. If the day after tomorrow will be Friday, what day of the week was yesterday?

5. If one M&M lolly weighs 5 grams, what would be the weight of a spoonful of 12 M&Ms?



3. A duck and her 8 ducklings were swimming across a lake. Then five of the ducklings swam off in a different direction. How many ducklings were left with their mother?



6. Write down the number 28 in words.



7. The path in Amy's backyard is exactly 14 metres long. If she hops all the way along the path and back again, how far does she hop, in metres?

8. Open-ended Question: Using pencil and ruler, draw a TRIANGLE inside a SQUARE. Next, draw a SQUARE inside a TRIANGLE. Then, colour them in.



Student Name: _____

Grade: _____ Date: _____

1. Top Swedish singing group ABBA are planning a concert next year, where they WON'T appear on stage. It will be a "virtual" concert in a 3,000 seat arena. In a full arena, if **HALF** the people are under 30 years old, how many will be 30 years old or older?



2. Prime Minister Scott Morrison has announced that Paralympians will receive the same rewards for winning medals as in the 2020 Tokyo Olympics – \$20,000 for a Gold Medal, \$15,000 for Silver and \$10,000 for Bronze. If an athlete wins a silver and 2 bronze medals, how much money will he/she receive altogether?

3. For Theo's 9th birthday, he received an electric scooter. His mum and dad only let him ride it at up to 20 kilometres per hour. If he rides it at that speed for 15 minutes, how far would he travel in that time?



4. Exactly one hundred years ago, Australian poet C.J. Dennis released his book of poems for children, called "A BOOK FOR KIDS". In what YEAR was that book published?

5. Australia Post is currently selling toy Paw Patrol Vehicles for \$24.80 each. Jamie has a total of \$55 that he received for his birthday. How many of the vehicles can he buy with that money?



6. There were 62 chips in a full cylinder of potato chips. If half have been eaten already, how many chips remain in the cylinder?



7. The most-borrowed children's books at one local library last year were: "DOG MAN" (230 loans); "WeirDo 15" (196); "WeirDo 14" (180). How many loans were there for these 3 books **in total** at that library?



8. A new App – "SNAP SEND SOLVE" – encourages people to take photos of areas of rubbish near their homes, so the local Council can "spring clean" their suburbs. One Council currently gets about 200 reports of rubbish dumping per month. With the new App, they are expecting that figure to jump to 500 reports per month. How many **MORE** reports would that be **IN A FULL YEAR** than at present?



9. Open-ended Question: Tess swims 12 lengths each morning in her backyard swimming pool. How far **MAY** she swim each day, in metres? Give 3 possible, **SENSIBLE** answers.





MATHAROO Worksheet UP – 28 21

Student Name: _____

Grade: _____ Date: _____



1. A new ABBA "virtual concert" series has been announced for 2022. As a lead-up to the concerts, they will be releasing a new 10-track album in November. If 6 of the tracks run for 2 minutes 38 seconds, and the rest are 2 min. 24 sec., find the **AVERAGE** length of each track on the album.

2. This Wednesday, 8th September is "INTERNATIONAL LITERACY DAY". If Tony read 5 books in June, three times as many in July as in June, and 4 books in August, what **FRACTION** of all those books did he read in June and July combined?

3. The number of ringtones on mobile phones fell from 4.6 million in 2016 to 3.7 million in 2020. Write the **DIFFERENCE** between those two numbers, in **FIGURES**.



4. Prime Minister Scott Morrison has announced that Paralympians will receive the same financial rewards for winning medals as in the Olympics -- \$20,000 for a Gold Medal; \$15,000 for Silver; \$10,000 for Bronze. If Australians won 7 Gold, 9 Silver and 13 Bronze medals, how much money would the Government be providing to medal-winning Paralympic athletes?



5. The most-borrowed children's books at one local library last year were: "DOG MAN" (230 loans); "WeirDo 15" (196); "WeirDo 14" (180). What **FRACTION** of loans of these 3 books were for "WeirDo" titles? Express your answer in simplest terms.



6. Using the figures in Question 5 above, show these figures on a graph.



7. Two very long rivers in Australia are the Murray (2,508 km) and the Murrumbidgee (1,485 km). How much **LONGER** is the Murray than the Murrumbidgee? Find a **COMMON FACTOR** of those lengths.



8. A men's clothing shop ordered $13\frac{1}{3}$ dozen pairs of socks, in readiness for Father's Day. They sold three-quarters of them before Father's Day. How many pairs of those socks did they still have on their shelves to sell **AFTER** Father's Day?



9. **Open-ended Question:** A **FRACTION** of the 472 athletes that represented Australia at the 2020 Tokyo Olympics won at least one medal. What fraction **MAY** that have been? Give 3 possible answers.



MATHAROO Worksheet EXT – 28 21

Student Name: _____

Grade: _____ Date: _____



1. The new ABBA album, titled "VOYAGE", will be released in November. They aimed to record 2 tracks, but ended up recording 10 tracks. What **MULTIPLE** of 2 is 10? And what **PERCENTAGE INCREASE** is that?



2. One small car has a petrol consumption of 6.2 litres per 100 kilometres. Its competitor has a consumption of 7.2 L/100 km. How much **EXTRA** does the owner of the second car pay over that paid by the first car owner, if they each travel 200 kilometres, and petrol costs \$1.48 per litre?

3. A favourite TV program on SBS is "LETTERS AND NUMBERS". The program started in France with the title "DES CHIFFRES ET LETTRES". What **FRACTION** of the letters in the **FRENCH** title are consonants?



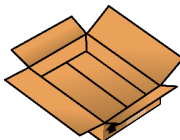
4. Of the 24 pages in last Tuesday's (very thin) newspaper, $\frac{3}{8}$ of the pages were about sport, $\frac{1}{4}$ of the pages were about finance, and the remainder of the paper was about general news. How many pages were "general news" pages?

5. As a fundraiser for cancer research, "THE KIDS' CANCER PROJECT" is asking people to run, walk or roll 90 kilometres in September and get their sponsors to donate money to a worthy cause. For participants, if they cover an equal distance each day in September, what would that distance be?



6. Jeannie takes her dog Jett to the dog park. There are only 3 breeds at the park, and there are fewer than 20 dogs there. There are 4 times as many poodles as there are Maltese, and 3 times as many beagles as there are Maltese. How many Maltese are there?

7. **OPEN-ENDED QUESTION:** The volume of a rectangular cardboard carton is 640 cubic centimetres. If the width of the base is $12\frac{1}{2}$ cm, what **MAY** be the other two dimensions of that carton?



8. **OPEN-ENDED QUESTION:** In an isosceles triangle, one of the angles was 13.5° . What **MAY** the other two angles have been? Give 2 possible answers. Remember, you **CAN** use fractions!



WEEK 24 SESSION 1 - Answer as many questions as you can in 5 mins

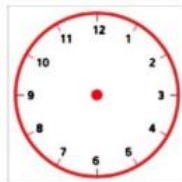
MENTAL STRATEGIES - do these in your head


TIMESTABLES - do these in your head

KEY SKILLS - you may use written calculations for these questions

Q	Question	Answer
1	$5 + \square = 20$	
2	$100 = 74 + \square$	
3	Double 4	
4	Double 61	
5	$90 + 10 = \square$	
6	$22 - 10 = \square$	
7	$4 = 2 + \square$	
8	$27 - 9 = 27 - 7 - \square$	
9	$9 + 9 + 9 = \square \times 9$	
10	Draw hands on the clock face showing 10:40 am	
Total out of 10		

Q	Question	Answer
1	$6 \times 9 = \square$	
2	$\square + 4 = 4$	
3	$\square + 8 = 6$	
4	$\square + 2 = 3$	
5	$36 \div 4 = \square$	
6	$8 \times 4 = \square$	
7	$8 \times 8 = \square$	
8	$\square \times 5 = 20$	
9	$2 \times 8 = \square$	
10	$\square \div 8 = 5$	
Total out of 10		



Q	Question	Answer
1	$591 + 823$	
2	$(3 + 87) \div 9$	
3	Write Six Million, Nine Hundred and Ninety Four Thousand and Forty Eight in digits	
4	$0.3 \div 10$	
5	$(-1) \times 2$	
6	Difference between 10 and -10	
7	Value of the dot 	
8	Is 32 a multiple of 6?	
9	What is the value of 5 cubed?	
10	$4/5 = 32/\square$	
Total out of 10		

WHICH NINJA BELT ARE YOU?

Which belt does your NUMERACY Score earn you?

- 0-3 WHITE
- 4-6 YELLOW
- 7-9 ORANGE
- 10-13 GREEN
- 14-17 BLUE
- 18-21 PURPLE
- 22-25 RED
- 26-29 BROWN
- 30 BLACK

NUMERACY NINJAS
NUMERACYNINJAS.ORG

WEEK 24 SESSION 2 - Answer as many questions as you can in 5 mins

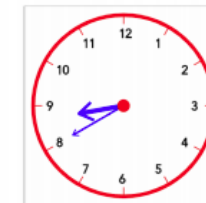
MENTAL STRATEGIES - do these in your head



TIMESTABLES - do these in your head

KEY SKILLS - you may use written calculations for these questions

Q	Question	Answer
1	$\square + 1 = 20$	
2	$39 + \square = 100$	
3	What is double 6?	
4	What is double 54?	
5	$196 + 10 = \square$	
6	$69 - 10 = \square$	
7	$9 = 7 + \square$	
8	$39 - 12 = 39 - 9 - \square$	
9	$\square \times 3 = 3 + 3 + 3 + 3$	
10	What time is shown on the clock?	pm
Total out of 10		

Q	Question	Answer
1	$6 \times \square = 36$	
2	$4 \times 3 = \square$	
3	$\square \times 6 = 48$	
4	$2 \times \square = 8$	
5	$\square + 4 = 6$	
6	$8 \times 10 = \square$	
7	$8 \times \square = 16$	
8	$4 \times 3 = \square$	
9	$16 \div 2 = \square$	
10	$40 \div 8 = \square$	
Total out of 10		



Q	Question	Answer
1	$589 + 9131$	
2	$4^2 + 3 \times 3$	
3	Write 4976671 in words. Use the opposite page for your answer.	
4	$6.7 \div 10$	
5	$(-2) \times (-6)$	
6	Difference between -9 and -5	
7	Value of the dot 	
8	What is the lowest common multiple of 5 and 8?	
9	What is the value of (-5) cubed? 	
10	$7/8 = 14/\square$	
Total out of 10		

WHICH NINJA BELT ARE YOU?

Which belt does your NUMERACY Score earn you?

- 0-3 WHITE
- 4-6 YELLOW
- 7-9 ORANGE
- 10-13 GREEN
- 14-17 BLUE
- 18-21 PURPLE
- 22-25 RED
- 26-29 BROWN
- 30 BLACK

NUMERACY NINJAS
NUMERACYNINJAS.ORG

WEEK 24 SESSION 3 - Answer as many questions as you can in 5 mins

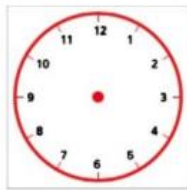
MENTAL STRATEGIES - do these in your head


TIMESTABLES - do these in your head

KEY SKILLS - you may use written calculations for these questions

Q	Question	Answer
1	$20 = \square + 7$	
2	$\square + 41 = 100$	
3	What is double 9?	
4	Double 82	
5	$154 + 10 = \square$	
6	$177 - 90 = \square$	
7	$4 = 3 + \square$	
8	$82 - 6 = 82 - 2 - \square$	
9	$\square \times 7 = 7 + 7 + 7 + 7$	
10	Draw hands on the clock face showing 12:05 pm	
Total out of 10		

Q	Question	Answer
1	$\square \times 4 = 24$	
2	$28 \div \square = 7$	
3	$8 \times \square = 48$	
4	$2 \times \square = 14$	
5	$8 \div \square = 2$	
6	$\square \times 6 = 48$	
7	$40 \div 8 = \square$	
8	$4 \times 7 = \square$	
9	$\square \times 4 = 8$	
10	$\square \div 8 = 9$	
Total out of 10		



Q	Question	Answer
1	$578 + 6771$	
2	$(1 + 29) \div 6$	
3	Write 339447 in words. Use the opposite page for your answer.	
4	$0.75 \div 100$	
5	$7 \times (-10)$	
6	$8 - 10$	
7	Value of the dot 	
8	Is 4 a multiple of 3?	
9	What is the value of $\sqrt[3]{64}$?	
10	$10/8 = 90/\square$	
Total out of 10		

WEEK 24 SESSION 4 - Answer as many questions as you can in 5 mins

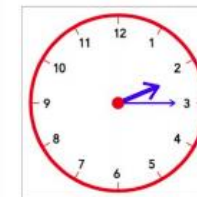
MENTAL STRATEGIES - do these in your head


TIMESTABLES - do these in your head

KEY SKILLS - you may use written calculations for these questions

Q	Question	Answer
1	$18 + \square = 20$	
2	$15 + \square = 100$	
3	What is double 2?	
4	Double 27	
5	$57 + 10 = \square$	
6	$61 - 40 = \square$	
7	$9 = 5 + \square$	
8	$51 - 8 = 51 - 1 - \square$	
9	$5 + 5 + 5 = \square \times 5$	
10	What time is shown on the clock?	pm
Total out of 10		

Q	Question	Answer
1	$6 \times 6 = \square$	
2	$4 \times 4 = \square$	
3	$8 \times \square = 64$	
4	$16 \div 2 = \square$	
5	$12 \div 4 = \square$	
6	$8 \times 5 = \square$	
7	$\square \times 8 = 64$	
8	$4 \times 3 = \square$	
9	$\square \times 5 = 10$	
10	$8 \times 10 = \square$	
Total out of 10		



Q	Question	Answer
1	$965 + 8748$	
2	$(3 + 97) \div 10$	
3	Write 6898426 in words. Use the opposite page for your answer.	
4	$699.34 \div 1000$	
5	$(-8) \times (-7)$	
6	Difference between -10 and 5	
7	Value of the dot 	
8	Is 12 a multiple of 6?	
9	What is the cube root of 6?	
10	$3/8 = 21/\square$	
Total out of 10		

WHICH NINJA BELT ARE YOU?

Which belt does your NINJA Score earn you?

- 0-3 WHITE
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- 18-21 PURPLE
- 22-25 RED
- 26-29 BROWN
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NUMERACY NINJAS
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Volume and capacity – millilitres and litres

Capacity refers to the amount a container can hold and is usually associated with liquid. Common capacity measurements are millilitres and litres.

$$1000 \text{ millilitres} = 1 \text{ litre}$$

$$1000 \text{ mL} = 1 \text{ L}$$

1 When we convert:

a millilitres to litres, we by 1000

b litres to millilitres, we by

2 Convert these amounts to litres:

a 3 452 mL =

b 7 895 mL =

c 10 000 mL =

d 12 674 mL =

e 56 780 mL =

f 235 mL =

3 Convert these amounts to millilitres:

a 2.568 L =

b 3.999 L =

c 10.566 L =

d 1.78 L =

e 7.305 L =

f 0.35 L =

4 Solve these word problems. They all involve conversion.

a Omar was filling up a 3 L container with cordial. He only had a small 300 mL jug. How many times did he have to fill the jug to totally fill the container?

b I poured 375 mL out of a 2 L milk container. How much was left? I then poured out another 375 mL. How much is left now?

c How many 315 mL glasses can be filled from a 1.7 L jug? How much is left over?

d Paula is making a punch for her party. She uses 1.5 L of orange juice, 750 mL pineapple juice, 1.25 L of lemonade and 1.25 L of ginger ale. How much punch does she have altogether? How many 250 mL cups will she be able to fill?

Volume and capacity – millilitres and litres

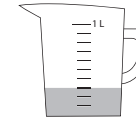
5 How much liquid is in each jug? Answer in both litres and millilitres. The first one has been done for you.



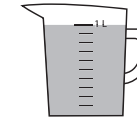
a $\frac{0.5}{500}$ L
mL



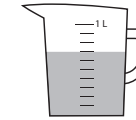
b _____ L
_____ mL



c _____ L
_____ mL



d _____ L
_____ mL

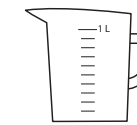


e _____ L
_____ mL

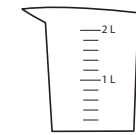
6 Fill the jugs below to the amount shown:



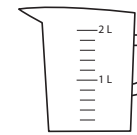
a 600 mL



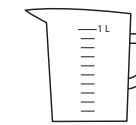
b 0.4 L



c 1800 mL



d 1.6 L



e 500 mL

These capacity measurements are useful to know: 1 teaspoon = 5 mL
1 cup = 250 mL

7 Below is a recipe for the delicious summer drink, Lava Flow. The capacity measurements are expressed in cups or teaspoons. Express them in millilitres:

Lava Flow
Ingredients (for one drink)

- $\frac{1}{2}$ cup of pineapple juice _____ mL
- $\frac{1}{2}$ cup of cream _____ mL
- $\frac{1}{2}$ a banana
- 3 teaspoons of coconut cream _____ mL
- 4 strawberries
- 1 cup ice _____ mL

Method


Blend all ingredients (except strawberries) until smooth. Put the strawberries in the bottom of a tall glass and add the blended mixture. Decorate with a drizzle of strawberry topping.

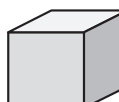


8 If you were going to make this drink for your entire class, what amounts of each ingredient would you need to purchase? Use a calculator if you wish. What is the most effective unit in which to express the amounts?

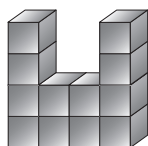
Volume and capacity – cubic centimetres and cubic metres

Remember that volume refers to the amount of space occupied by an object or substance. Commonly used volume measurements are the cubic centimetre and the cubic metre.

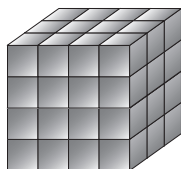
 One cubic centimetre is 1 cm long, 1 cm wide and 1 cm high. The symbol we use for cubic cm is cm^3 . $1 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} = 1 \text{ cm}^3$

 One cubic metre is 1 m long, 1 m wide and 1 m high. The symbol we use is m^3 . $1 \text{ m} \times 1 \text{ m} \times 1 \text{ m} = 1 \text{ m}^3$

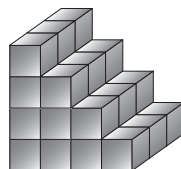
1 Find the volume of these shapes by counting the cubes. Each cube is 1 cm^3 .



a Volume = _____ cm^3

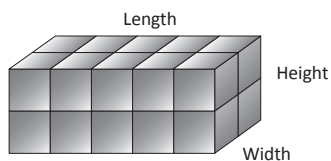


b Volume = _____ cm^3



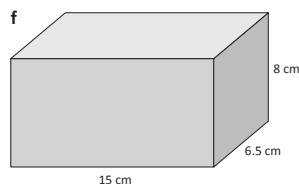
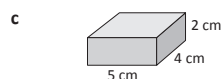
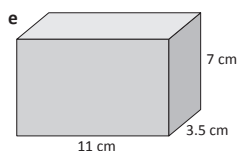
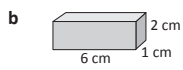
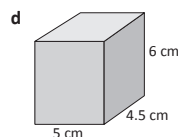
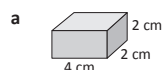
c Volume = _____ cm^3

We can find out the volume of a rectangular prism or cube without counting each block. We just multiply the length by the width by the height.



$L \times W \times H = V$
 $5 \times 2 \times 2 = 20 \text{ cm}^3$

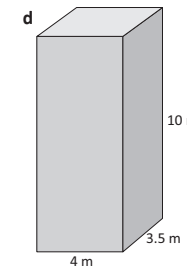
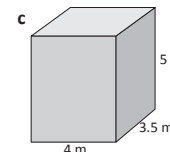
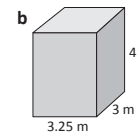
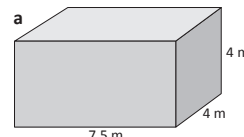
2 Use the formula $L \times W \times H = V$ to find the volume of these prisms. You may use a calculator.



Shape	a	b	c	d	e	f
Volume						

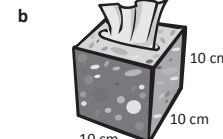
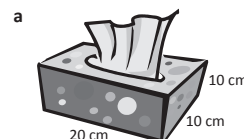
Volume and capacity – cubic centimetres and cubic metres

3 Use the formula $L \times W \times H = V$ to find the volume of these prisms. You may use a calculator.



Shape	a	b	c	d
Volume				

4 Boxes of tissues are packed in cubic metre containers to be shipped to supermarkets. Use a calculator to work out how many of these boxes will fit into each container. You will first need to work out how many cubic centimetres are in a cubic metre.



_____ boxes

_____ boxes

_____ boxes

5 Work with a friend on this activity. You may either physically build the towers or choose to talk through the problem together. You are building towers using centicubes. One of you makes your first level with 4 rows of 3 blocks. The other person starts with 5 rows of 4 blocks. The first one has been done for you.

- a Fill in the table to show how the volume of the towers would increase as they grow.
- b Your teacher says you can only have 200 cubes between you. You build the towers to the same height. How many levels could you each build?

	Person 1	Person 2
1st level	12 cm^3	20 cm^3
2nd level	cm^3	cm^3
3rd level	cm^3	cm^3
4th level	cm^3	cm^3
5th level	cm^3	cm^3
6th level	cm^3	cm^3
7th level	cm^3	cm^3
8th level	cm^3	cm^3

Fractions, decimals and percentages – place value to thousandths

When comparing and ordering decimals, the place value of a digit is crucial. The further the digit is to the left, the greater its value.

Even though one thousandth sounds big, it is actually very small. Remember, one thousandth is just a single piece of a whole divided into a thousand parts. One tenth is actually one hundred times bigger than one thousandth.

3 Which is bigger? Circle the correct answer:

- a 0.7 or 0.07
- b 0.56 or 6 tenths
- c 7.5 or $\frac{7}{10}$
- d 15 or 0.15
- e $\frac{1}{2}$ or 0.25
- f 35 or 0.035

4 Use < or > or = to show the relationship between the two numbers:

- a 6.89 ____ 6.76
- b 70.908 ____ 7.908
- c 9.08 ____ 9.8
- d 5.098 ____ 5.98
- e 0.56 ____ 0.560
- f 11.80 ____ 11.8

5 This chart shows the vital statistics of some Roosters Football Club players.

Name	Height	Weight
Lanky	2.06 m	79.054 kg
Crusher	1.96 m	110.652 kg
Crumber	1.73 m	79.934 kg
Cazaly	1.84 m	88.91 kg
Stomper	1.81 m	99.552 kg
Whale	2.01 m	118.236 kg
Twinkle Toes		65.789 kg



- a Who is tallest? Who is shortest?

- b Put these players in order of lightest to heaviest: Crumber, Stomper, Cazaly:

- c Which 2 players would you have playing in the ruck? (Rucks have to be tall.)

- d Who would you least like to have tackle you? Why?

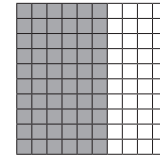
- e Twinkle Toes twirled out of the club before his height was measured. We know he is taller than Crumber and shorter than Cazaly. What could his height be? Add it to the table.

Fractions, decimals and percentages – percentages

Percent means part per hundred and is expressed using the symbol %.

Here, 60% has been shaded grey.

It is the same as 60 hundredths. $\frac{60}{100} = 0.60 = 60\%$



1 Think of at least five times you see the % sign or use percentages:

2 Fill in the missing values and shade the grids:

a $\frac{50}{100}$ 0. %

b $\frac{30}{100}$ 0.3 %

c ____ 0. 90%

d ____ 0.25 %

e $\frac{45}{100}$ 0. %

f ____ 0.75 %

g ____ 0. 89%

h ____ 0.42 %

3 Are these statements correct?

- a 75% is greater than 0.5
- b One quarter is the same as 50%
- c 45% is greater than 0.5
- d 0.42 is equivalent to 425
- e You score 100% on a test. Your friend scores 20/20. You both received the same score.

Fractions, decimals and percentages – percentages

It is useful to know some common percentages such as 25%, 50% or 75%.

4 Shade the grids and show the following fractions by completing the missing information:

a	b	c	d												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">$\frac{1}{4}$</td> <td style="width: 33%; text-align: center;">0.25</td> <td style="width: 33%; text-align: center;">25%</td> </tr> </table>	$\frac{1}{4}$	0.25	25%	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">$\frac{1}{2}$</td> <td style="width: 33%; text-align: center;">0.</td> <td style="width: 33%; text-align: center;">%</td> </tr> </table>	$\frac{1}{2}$	0.	%	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">$\frac{3}{4}$</td> <td style="width: 33%; text-align: center;">0.</td> <td style="width: 33%; text-align: center;">%</td> </tr> </table>	$\frac{3}{4}$	0.	%	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">$\frac{4}{4}$</td> <td style="width: 33%; text-align: center;">.</td> <td style="width: 33%; text-align: center;">%</td> </tr> </table>	$\frac{4}{4}$.	%
$\frac{1}{4}$	0.25	25%													
$\frac{1}{2}$	0.	%													
$\frac{3}{4}$	0.	%													
$\frac{4}{4}$.	%													

5 Shade these shapes to show the following percentages:

a 50%	b 25%	c 75%
d 50%	e 25%	f 100%

6 James goes on holiday. He has \$100 spending money and spends it as outlined below. Show this on the pie graph and label each section of the pie with the correct percentage:

- \$25 on rides
- \$35 on snacks
- \$15 on new things (his parents refused to pay for them as he had sworn black and blue he had packed everything. How rude...)
- \$25 on souvenirs

Match 'n' snap

apply



This is a game for 2 or more players. You will race against each other to come up with equivalent fractions, decimals or percentages to match those on cards. You'll need one copy of this page and one copy of page 25 between you.



Cut out the playing cards, mix them up and put them face down in a pile. Cut out the blank cards on page 25 and divide them between the two of you. Make sure you both have a pencil each.

Turn over the first playing card. Both players write an equivalent fraction, decimal or percentage to match it on one of the blank cards and cover the playing card as quickly as possible.

For example, the playing card may say 50% – you could write $\frac{1}{2}$ or $\frac{5}{10}$ or $\frac{50}{100}$.

The first person to cover the card with a correct match wins and takes the pair. The player at the end of the game with the most cards is the winner.

Playing Cards

$\frac{75}{100}$	25%	$\frac{3}{4}$	$\frac{1}{4}$
0.5	0.25	$\frac{1}{2}$	50%
0.1	$\frac{1}{10}$	10%	0.75

Volume and capacity – millilitres and litres

Capacity refers to the amount a container can hold and is usually associated with liquid.
 1 000 millilitres = 1 Litre 1 000 mL = 1 L

1 When we convert:

- a millilitres to litres we by
- b litres to millilitres we by

2 Express these amounts in litres:

- a 2 000 mL =
- b 1500 mL =
- c 500 mL =
- d 5000 mL =

3 Convert these amounts to millilitres:

- a 8 L =
- b 2.5 L =
- c 9.5 L =
- d 0.6 L =
- e 5.5 L =
- f 0.2 L =

4 Which unit would you use for measuring the capacity of each of these objects?
 Write L for litres or mL for millilitres:

a 2 _____ b 5 _____ c 1 _____ d 300 _____ e 4 _____ f 250 _____

5 Colour the jugs to show these quantities:

a half a litre b $\frac{1}{4}$ of a litre c $\frac{3}{4}$ of a litre d 900 mL

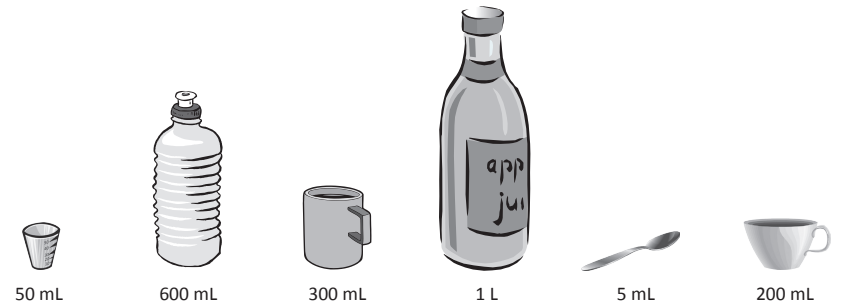
Volume and capacity – millilitres and litres

6 Answer these problems to do with mixing drinks:

- a Tyler has poured cordial syrup into this jug. How much water will he add to make 1 L of cordial drink?
- b This jug contains some lemonade. Lucy pours in another 80 mL of lemonade. Draw a line to show the new amount of liquid in the jug.




7 Look at the pictures, then answer the questions below:

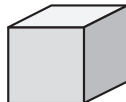


- | | True or False | | True or False |
|--|----------------------|---|----------------------|
| a The mug holds the same amount of liquid as six full medicine cups. | <input type="text"/> | b The tea cup needs to be filled 3 times to equal a full water bottle. | <input type="text"/> |
| c The medicine cup holds 10 times more liquid than the teaspoon. | <input type="text"/> | d More than 2 L of liquid is needed to fill the water bottle three times. | <input type="text"/> |
| e The water bottle holds half as much as the juice bottle. | <input type="text"/> | f The mug holds half as much as the water bottle. | <input type="text"/> |
| g The juice bottle holds the same amount of liquid as four tea cups. | <input type="text"/> | h The tea cup holds one tenth the amount the juice bottle holds. | <input type="text"/> |

Volume and capacity – cubic centimetres and cubic metres

Volume is the amount of space occupied by an object or substance. Commonly used volume measurements are the cubic centimetre and the cubic metre.

 One cubic centimetre is 1 cm long, 1 cm wide and 1 cm high. The symbol we use for cubic cm is cm³.
1 cm × 1 cm × 1 cm = 1 cm³

 One cubic metre is 1 m long, 1 m wide and 1 m high. The symbol we use is m³.
1 m × 1 m × 1 m = 1 m³

1 For this activity you will need 48 centicubes or centimetre blocks. Work with a friend and record your answers in the table as you go:

a Use all 48 cubes to make a block 4 cubes wide and 4 cubes high. Before you begin, predict how long you think it will be. How long is it? Record your answer in the table below.

b Now use all 48 cubes to make a block 12 cubes long. Before you begin, predict how wide and high it will be. How wide and high is it?

c Can you make a block that is still 12 cubes long, but is a different height and width?

d Take turns choosing a length between 1 and 48. The other person tries to make a cube with that length. If it can be done, add it to the table. If not, list it to the right of the table. Why do you think these lengths won't work?

e Can you see a pattern in your results?

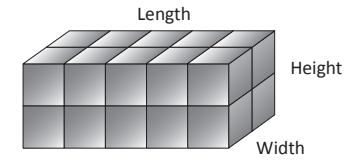
f Now for each row, put a multiplication symbol between the width and height and then the height and length. Put an equals sign between the length and number of cubes. Do the number sentences work? If so, you have worked out the formula for volume: **length × width × height = volume**

Width	Height	Length	Number of Cubes
			48
			48
			48
			48
			48
			48

Lengths that won't work:

Volume and capacity – cubic centimetres and cubic metres

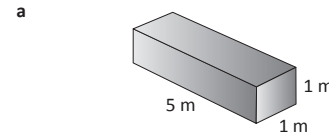
To find out the volume of an object without counting each block, we can multiply the length by the width by the height.



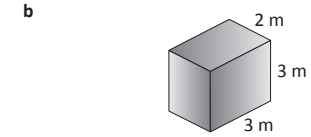
$$l \times w \times h = v$$

$$5 \times 2 \times 2 = 20 \text{ cm}^3$$

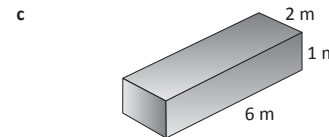
2 Using the formula $l \times w \times h = v$, calculate the volume of these boxes:



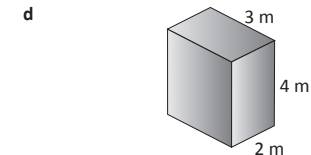
$$\square \times \square \times \square = \square$$



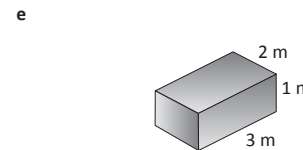
$$\square \times \square \times \square = \square$$



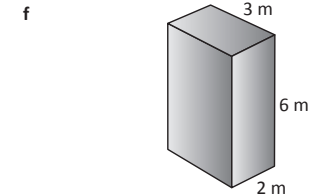
$$\square \times \square \times \square = \square$$



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



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



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

3 Would you measure the volume of these objects in the given units? If not, suggest a better choice:

a swimming pool – cm³ _____ b brick – cm³ _____

c suitcase – cm³ _____ d restaurant – cm³ _____

e pencil case – cm³ _____ f lunch box – cm³ _____

g remote control – cm³ _____ h classroom – cm³ _____