

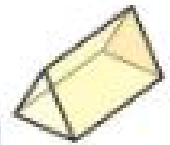


Week 23 Test

1. $27\text{m} + 30\text{m} = \underline{\hspace{2cm}}$
2. $8 + 60 + 400 = \underline{\hspace{2cm}}$
3. Regroup 4 tens and 25 units
= $\underline{\hspace{1cm}}$ tens $\underline{\hspace{1cm}}$ units
4. $4 \times 5 = \underline{\hspace{2cm}}$
5. Draw a mirror image reflection of the arrow.

6. $498\text{cm} = \underline{\hspace{1cm}} \text{ m } \underline{\hspace{1cm}} \text{ cm}$
7. $\frac{1}{4}$ of 36 = $\underline{\hspace{2cm}}$
8. $12 \div 3 = \underline{\hspace{2cm}}$
9. 1 hour 35 minutes = $\underline{\hspace{2cm}}$ minutes
10. What fraction of the balls are coloured red? $\underline{\hspace{2cm}}$

11. $\frac{16}{4} = \underline{\hspace{2cm}}$

$$\begin{array}{r} \text{h t u} \\ 600 \\ - 379 \\ \hline \end{array}$$

12. $\underline{\hspace{2cm}}$
13. How many faces has a triangular prism? $\underline{\hspace{2cm}}$



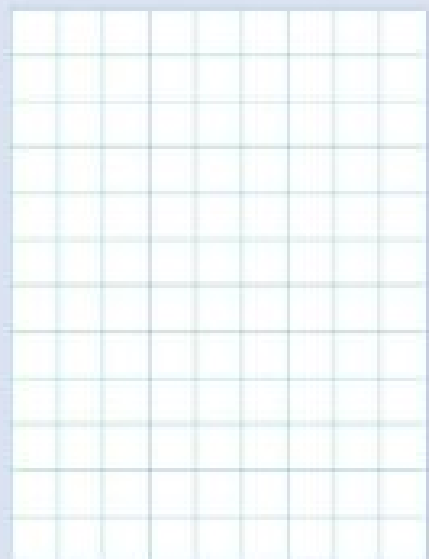
14. How much? $\underline{\hspace{2cm}}$






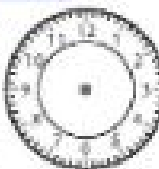

15. $4 \times 5 \rightarrow \underline{\hspace{1cm}} \times 10$
16. 598, 596, 594, $\underline{\hspace{1cm}}$, $\underline{\hspace{1cm}}$, $\underline{\hspace{1cm}}$
17. $\begin{array}{r} 4\text{kg } 550\text{g} \\ - 3\text{kg } 260\text{g} \\ \hline \end{array}$
 $\underline{\hspace{2cm}}$
18. $(18 \times 4) \rightarrow (10 \times 4) + (\underline{\hspace{1cm}} \times 4)$
19. Arrange these numbers in order of size, starting with the largest:
739, 973, 937, 379.
 $\underline{\hspace{1cm}}$, $\underline{\hspace{1cm}}$, $\underline{\hspace{1cm}}$, $\underline{\hspace{1cm}}$
20. $9 \times \underline{\hspace{1cm}} = 81$

Problems

21. There are 200 pages in a book.
Jack read 45 pages on Monday and 87 on Tuesday.
How many pages has he left to read? $\underline{\hspace{2cm}}$
22. The Smiths had 85l of oil in their oil tank.
They received a delivery of 250L.
How many litres were in the tank then? $\underline{\hspace{2cm}}$
23. There are 24 pencils in a box.
How many pencils in 8 boxes? $\underline{\hspace{2cm}}$
24. How much heavier is a turkey that weighs 4kg 350g than a ham that weighs 2kg 260g? $\underline{\hspace{2cm}}$
25. Dillon had 45 football cards.
He gave 7 to each of his 6 friends.
How many had he left? $\underline{\hspace{2cm}}$

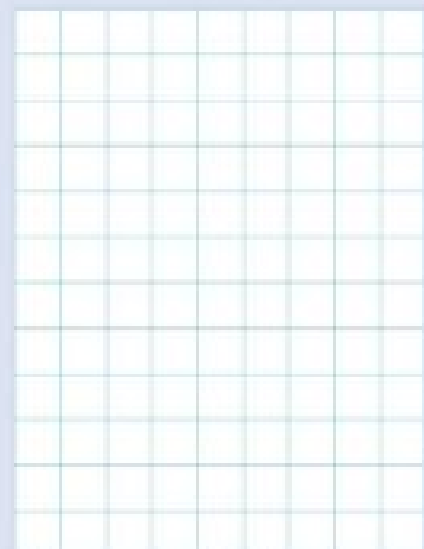


Week 24 Test

1. $45\text{m} + 35\text{m} = \underline{\hspace{2cm}}$
2. $67 + \underline{\hspace{2cm}} = 90$
3. $5 \times 6 = \underline{\hspace{2cm}}$
4. $3\text{m } 46\text{cm} = \underline{\hspace{2cm}} \text{ cm}$
5. $3\text{m} + 600\text{m} + 40\text{m} = \underline{\hspace{2cm}}$
6. Divide the cubes into 3 equal groups.
 $18 \div 3 = \underline{\hspace{2cm}}$

7. Are these lines parallel or perpendicular?  $\underline{\hspace{2cm}}$
8.  How many angles has this shape? $\underline{\hspace{2cm}}$
9. Draw hands on the clock to show $3:45$. 
10. Write the time two hours earlier than the time shown: $6:40$. $\underline{\hspace{2cm}} : \underline{\hspace{2cm}}$
11. $\frac{1}{4}$ of $32 = \underline{\hspace{2cm}}$
12.
$$\begin{array}{r} 26 \\ \times 6 \\ \hline \end{array}$$
13. 1.1, 1.3, 1.5, $\underline{\hspace{2cm}}$, $\underline{\hspace{2cm}}$, $\underline{\hspace{2cm}}$
14. $30 \div 5 = \underline{\hspace{2cm}}$
15. Which is greater, $250\text{g} \times 2$ or $\frac{3}{4}\text{kg}$? $\underline{\hspace{2cm}}$
16.
$$\begin{array}{r} 6\text{ l } 650\text{ ml} \\ - 3\text{ l } 500\text{ ml} \\ \hline \end{array}$$
17. How much? $\underline{\hspace{2cm}}$ 
18. $(5 \times 8) - 15 = \underline{\hspace{2cm}}$
19. $(19 \times 4) \rightarrow (10 \times 4) + (9 \times \underline{\hspace{2cm}})$
20. $\frac{5}{10} = \frac{1}{2}$. True or false? $\underline{\hspace{2cm}}$

Problems

21. There are 24 markers in a packet.
How many markers are in 6 packets? $\underline{\hspace{2cm}}$
22. Pádraig has 32 marbles.
Paul has $\frac{1}{8}$ of that number.
How many marbles have they between them? $\underline{\hspace{2cm}}$
23. If you ride 4km in $\frac{1}{2}$ an hour, how long would it take you to ride 16km? $\underline{\hspace{2cm}}$
24. Rónan spent €5.55 on food and €2.65 on a drink. How much change did he get out of €10.00? $\underline{\hspace{2cm}}$
25. How many bags of 10 apples can be made from 33 green apples and 47 red apples? $\underline{\hspace{2cm}}$

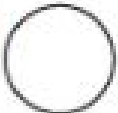


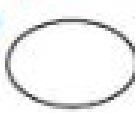
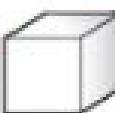
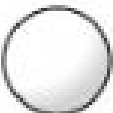



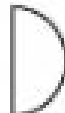


Chapter 21: 3-D shapes

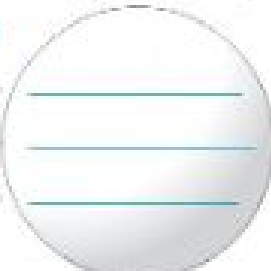


2-D shapes are FLAT.

3-D shapes are SOLID.

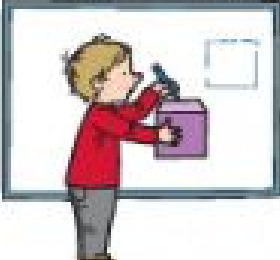



1. Write the name of each shape. Colour the 2-D shapes **green** and 3-D shapes **red**.

(a) 	(b) 	(c) 	(d) 	(e) 
_____	_____	_____	_____	_____
(f) 	(g) 	(h) 	(i) 	(j) 
_____	_____	_____	_____	_____

2. Give 3 examples of objects that are shaped like these solids.

(a) 	(b) 	(c) 
1. _____	1. _____	1. _____
2. _____	2. _____	2. _____
3. _____	3. _____	3. _____

3. When you trace around a face of a 3-D shape, you will draw a 2-D shape. What 2-D shapes make up the faces of these solids?

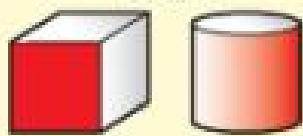
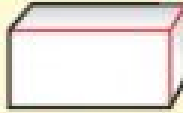

	(a) 	(b) 	(c) 
	_____	_____	_____
			and _____

4. Colour the odd one out. Give a reason for your choice.



Reason: _____

Faces, edges, vertices

Face	Edge	Vertex
		
<p>A face can be curved or flat. When you trace around a face, you draw a 2-D shape.</p>	<p>An edge is where 2 faces meet. You can run your finger along it.</p>	<p>A vertex is a point or corner. Vertices is the plural of vertex.</p>

1. Complete these sentences.



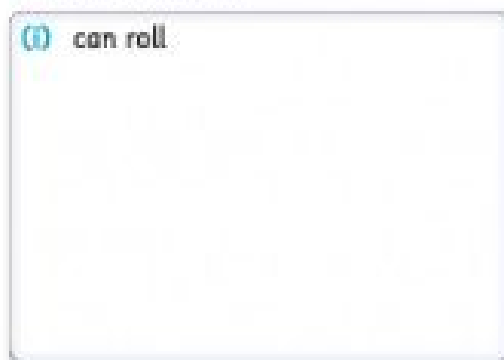
- A _____ has 1 flat face and 1 curved face.
- A _____ has 2 flat faces and 1 curved face.
- A _____ has 6 square faces.
- A _____ and _____ have no vertices.
- A _____ has 2 curved edges.
- A _____ has only 1 face.
- A _____ and _____ each have 12 edges.
- A _____ has only 1 vertex.

Shapes with curved faces can roll.

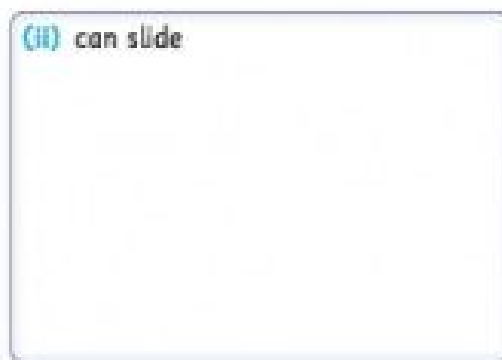
Shapes with flat faces can slide.

2. (a) Which of the 5 shapes from Question 1 can (i) roll; (ii) slide? Draw them in the correct boxes.

(i) can roll



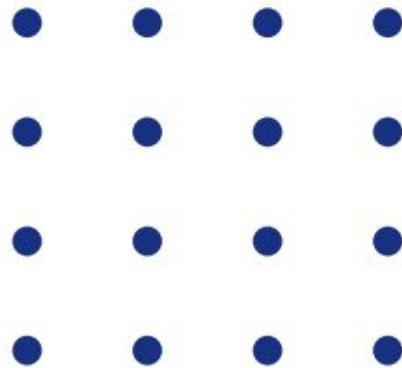
(ii) can slide



(b) The _____ and _____ can both roll and slide.

Lots of squares

How many **squares** can you find that have **dots** from this array as their corners?



LEVEL 2

<http://nzmaths.co.nz/problem-solving>

The kitchen floor

Grace's kitchen floor is square and is fitted by 64 square tiles in a 8 x 8 array. Grace choses **black and white tiles**. She can have the tiles laid so that they look like a chessboard but she is hoping for something a bit unusual.

The tile man sketches something that has **reflective** and **rotational** symmetry.

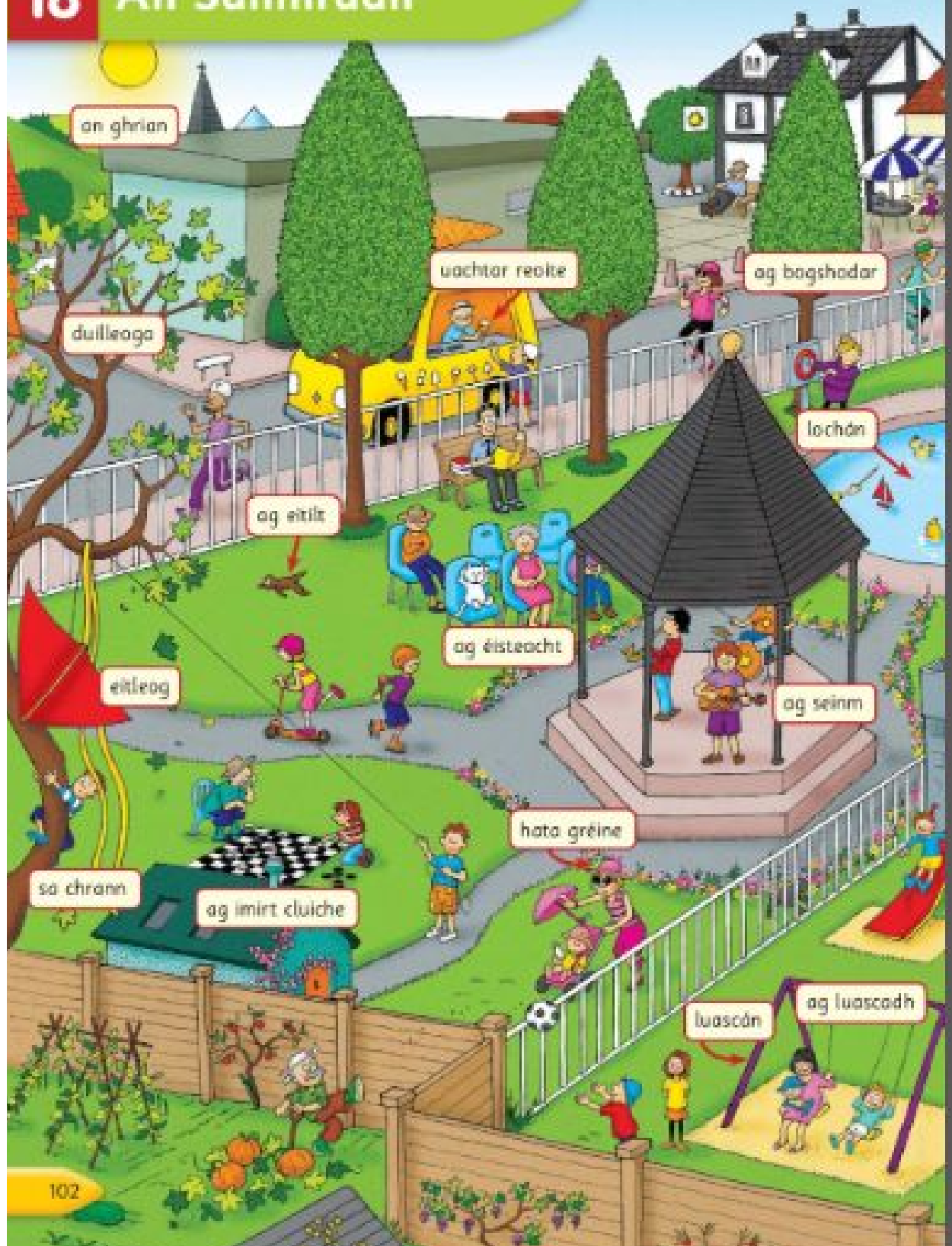
What does he suggest?

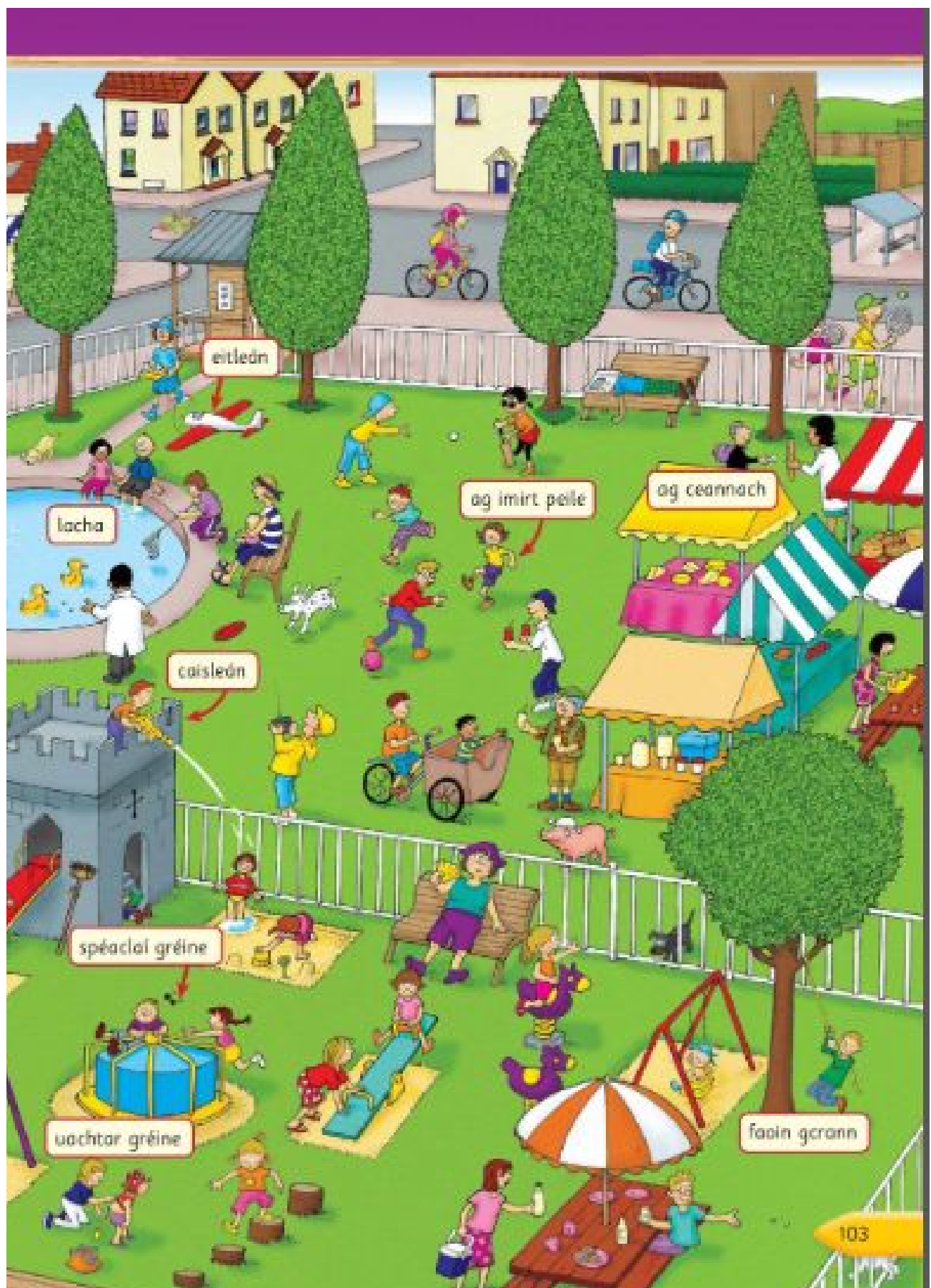


LEVEL 3

<http://nzmaths.co.nz/problem-solving>

18 An Samhradh





A ? Ceist agam ort

1. Cén séasúr atá ann? An _____ atá ann.
2. Cén saghas lae atá ann?
Tá _____.
3. Cé atá ag léamh sa pháirc?
_____.
4. An bhfuil Bainín sa leaba?
_____.
5. An maith leat: an t-earrach ☐ an samhradh ☐
an fóimhar ☐ an geimhreadh ☐ ?

B Cuir ord ar an scéal.



Tá tonnachlár ag Hollaí. Tá Ollai ag snámh. Tá bád san uisce.
Rinne Mamaí caisleán. Tá Ollai cois farraige. Tá ceapaire ag Learaí.
An samhradh atá ann. Rinne Daidí picnic.

- | | |
|----------|----------|
| 1. _____ | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

- 1-What season is it?
- 2-What kind of day is it?
- 3-Who is reading in the park?
- 4- Was Bainín in bed?
- 5- Do you like: spring, summer, autumn, winter

Hollaí has a body board- Ollaí is swimming- There's a boat in the water- Mamaí made a castle- Ollaí is beside the sea- Learaí has a sandwich- It is summer- Daidí made a picnic.

C Teanga ó bhéal – Éist agus foghlaim

Tá/Níl an lá go hálainn. Tá/Níl an ghrian ag taitneamh. Tá/Níl sé an-te.



Tá/Níl scamail sa spéir.

Tá/Níl sé ag cur báistí.

Tá/Níl sé gaofar.



- Cén saghas lae atá ann inniu? Tá/Níl _____.
Tá/Níl _____. Tá/Níl _____.
- Cén saghas lae a bhí ann inné? Bhí/Ní raibh _____.
Bhí/Ní raibh _____. Bhí/Ní raibh _____.

D Teanga ó bhéal – Comhrá

★ Ag caint le chéile – AN LÁ:

- Cén lá atá ann inniu?
- Cén lá a bhí ann inné?

★ Ag caint le chéile – AN AIMSIR:

- An maith leat lá... te, fuar, fliuch, gaofar, grianmhar, scamallach?
Is maith liom lá... Ní maith liom lá...
Is breá liom lá... Is fearr liom lá...

- An fearr leat lá... nó lá...?
Is maith liom lá... ach is fearr liom lá...
Is maith liom lá... ach is breá liom lá...
Is maith liom lá... mar...

- Cén saghas lae atá ann inniu?
- Cén saghas lae a bhí ann inné?
- Cad atá sa spéir?
- Cad a bhí sa spéir?
- An bhfuil... ag titim?
- An raibh... ag titim?

Toto – the Ninja Cat

Catface (a rat) and his two friends, Silver and Toto (both cats) are going down the sewers after a deadly King Cobra. Toto is no ordinary cat. She will need to use all of her ninja skills if they are to survive.



Pre-reading activities: Comprehension strategy – Summarising

- 1 (a) Do you know any stories about cats or rats?
(b) Tell your story to the class or to your partner.
(c) What are the most important events in your story?

Think, Pair, Share: Comprehension strategy – Connecting

- 2 (a) Describe what you think Ratborough will be like.
(b) Would you like to visit Ratborough?

During reading: Comprehension strategy – Determining importance

- 3 (a) Are there some parts of the story that are more important than others?
(b) Which part of the story did you find most important so far?
Why is it the most important?



'Get your scrap burger here! Get them while they're hot!'

The yell of the rat market **trader** was the first thing the brave animal gang heard when they **emerged** in the central square of Ratborough – the capital of Rat London – which, for you and me, is about fifteen **metres** under Camden High Street.

They'd travelled through the dark, smelly **sewers** for what seemed like ages, trying to **avoid** bumping into any rats along the way. **Luckily**, as there were so many smaller **tunnels** leading off from the main one, which they could hide in when **necessary**, they had gone **undetected**. But as they got closer to the town, it became busier and busier, so Catface had pulled his hat right down and hidden the cats under his coat-tails.



After a while, the sewer tunnels got bigger and bigger, and they started to pass small rat houses made from mud and **rubbish**.



The houses got larger and **grander**, until **finally** the tunnel opened on to the huge town square. In the middle was a **vast** park, **surrounded** by buildings made from plastic, glass bottles, tin cans and toilet rolls. A sewer river ran through it all, and just nearby the food market was in full swing.

'Catface, this place is **incredible**!' said Silver.

'Is this where you're from?' asked Toto.

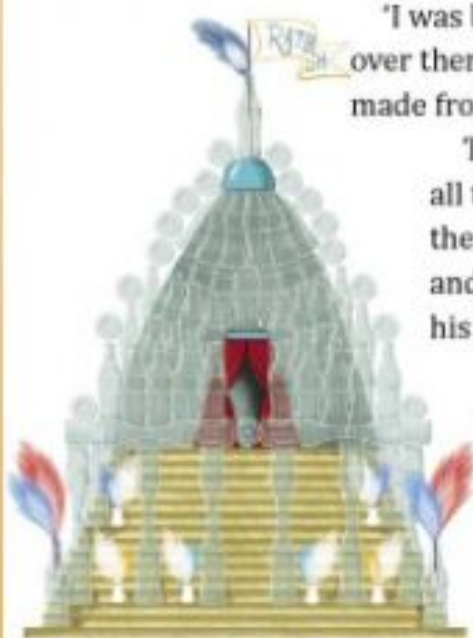
'I was born and bred here – I grew up in the palace over there,' Catface said, pointing to a beautiful building made from glass cola bottles.

There were rats *everywhere*. **Luckily**, they were all too busy going about their **business** to notice the large rat, under a hat, who looked like a cat, and the two tails that stuck out from underneath his tweed jacket.

The smell from the food stalls was **overwhelming** – fried, dirty, **slightly** off meat.

Silver loved it. 'Now *this* is my kind of place! What's in a scrap burger anyway?'

'You do NOT want to know, my friend,' **replied** Catface. 'Let's just say, the clue is in the name.'



'So, what's the plan?' asked Toto, as they found a quieter corner to **huddle** in. 'We can't just start **screaming**. 'There's a King Cobra on the loose – run for the hills!' Are there even hills here?'

'No, and no,' said Catface, **glancing** down. 'Oh, Silver, not again!'

Silver had slipped out from **underneath** Catface's coat-tails and was hiding in a bush next to the scrap burger stand. Just as his paw was about to nab one of the burgers, the stallholder turned and caught him in the act. At first the stallholder looked **furious**, then **confused**, then scared...



'Thief! Cat! Cat-Thief!' he screamed.

Within seconds, from the four corners of the square ran ten **uniformed** rats armed with pikes (which looked **suspiciously** like toothpicks) who **surrounded** the cats.

'Sorry, sis – thought I'd get away with it...' said Silver **sheepishly**, backing away.





'Alas, no,' he said. 'This is the King's Guard, the **elite** warriors of my father's army. I'm his son, and even I'm not sure I can talk us out of this one.'

'Right then,' said Toto. 'I've got this.'

She took a step back and closed her eyes. She could sense the guards were all big, strong and armed, but at least she knew exactly where they were. Drawing a breath, she **emptied** her mind and knew what to do.

As the first guard moved to **attack**, she **dodged** and leapt up in the air, **avoiding** the stabbing toothpick that was heading her way. She hung in the air for what seemed like an age, then swept her back foot around in a circle, swiping the surrounding rats in their faces with her spiky claws. By the time she landed half a second later, all ten rat guards were lying on the ground, groaning.



'Classic ninja move!' said Silver, **grinning**. 'One of my favourites.' Catface was staring open-mouthed, but...

...**reinforcements** were coming from all sides, and before they knew it, a hundred or so armed rats had surrounded them.

'She can take them all, just watch her!' said Silver, **excitedly**.

'Enough!' a **booming** voice **echoed** around the whole square.



All eyes turned towards the **palace** as the owner of the voice started to walk down the stairs towards them.



He was **enormous**, dressed in fine robes, with a **ridiculous**, old-fashioned hat. He also looked quite a lot like a cat.

'Let me guess,' said Toto. 'Your dad?'

'Yes, he's the king all right,' said Catface.

'Whatever you do, do NOT say that we look like each other.'

'But you look exactly like each other,' **protested** Silver.

'NOT A WORD,' said Catface. 'Let me see if I can handle this. Wish me luck.'

Catface took off his hat and walked towards his dad. The guards gave way, suddenly **realising** who he was.

'YOU!' the King sounded **furious**. 'Who gave you **permission** to return here? You have been **banished** to live with the surface **dwellers** you love so much. I know for a fact that you are still seen in the company of cats - CATS!'

The whole town square took a **massive** gasp as one.



'And now I see you return with two *cat assassins* to overthrow me and **claim** the crown for yourself!'

'You know, that's not a bad idea,' **whispered** Silver to Toto.

'Father!' said Catface. 'I've done no such thing. I'm here to help you. It is true, I am a surface dweller – which is a **weird** thing to call them, by the way – but there are many creatures up there who wish us no **harm**.'

Silver **whistled** and looked away.



'These are my friends,' Catface **continued, gesturing** to Silver and Toto, 'and we come with a **warning**. You have to listen to us. A King Cobra, *the* King Cobra – the **terrifying** monster known only as Brian – has escaped from the zoo and could be heading this way!'

From Toto – The Ninja Cat and the Great Snake Escape by Dermot O'Leary.

**Post-reading activities: Comprehension strategy –
Determining importance**

- 1 (a) What is the most important part of the story in your opinion?
(b) Retell the most important event in the story giving it a beginning, middle and end.
- 2 Find five important words in the text. Compare your five words with the rest of the class. Call them **VIWS** (Very Important WordS). Explain why you chose these words.

A A Little Light Thinking

1. Who is the author of this story?
2. What is the first thing the brave animal gang heard when they emerged in the central square of Ratborough?
3. What did Silver try to nab (steal) from one of the stalls?
4. Who surrounded the cats when the stallholder called out 'thief'?
5. About how many reinforcement guards arrived?
6. Why did the king think Catface had returned with the two cats?

B Deeper Thinking

1. Do you think the title *Toto – the Ninja Cat* is a suitable title for this story? Explain.
2. Why did it get busier as the animal gang got closer to the town?
3. Describe the town square.
4. Why do you think Toto closed her eyes when surrounded by the King's Guard?
5. Why do you think Catface had been banished to live with the surface dwellers?



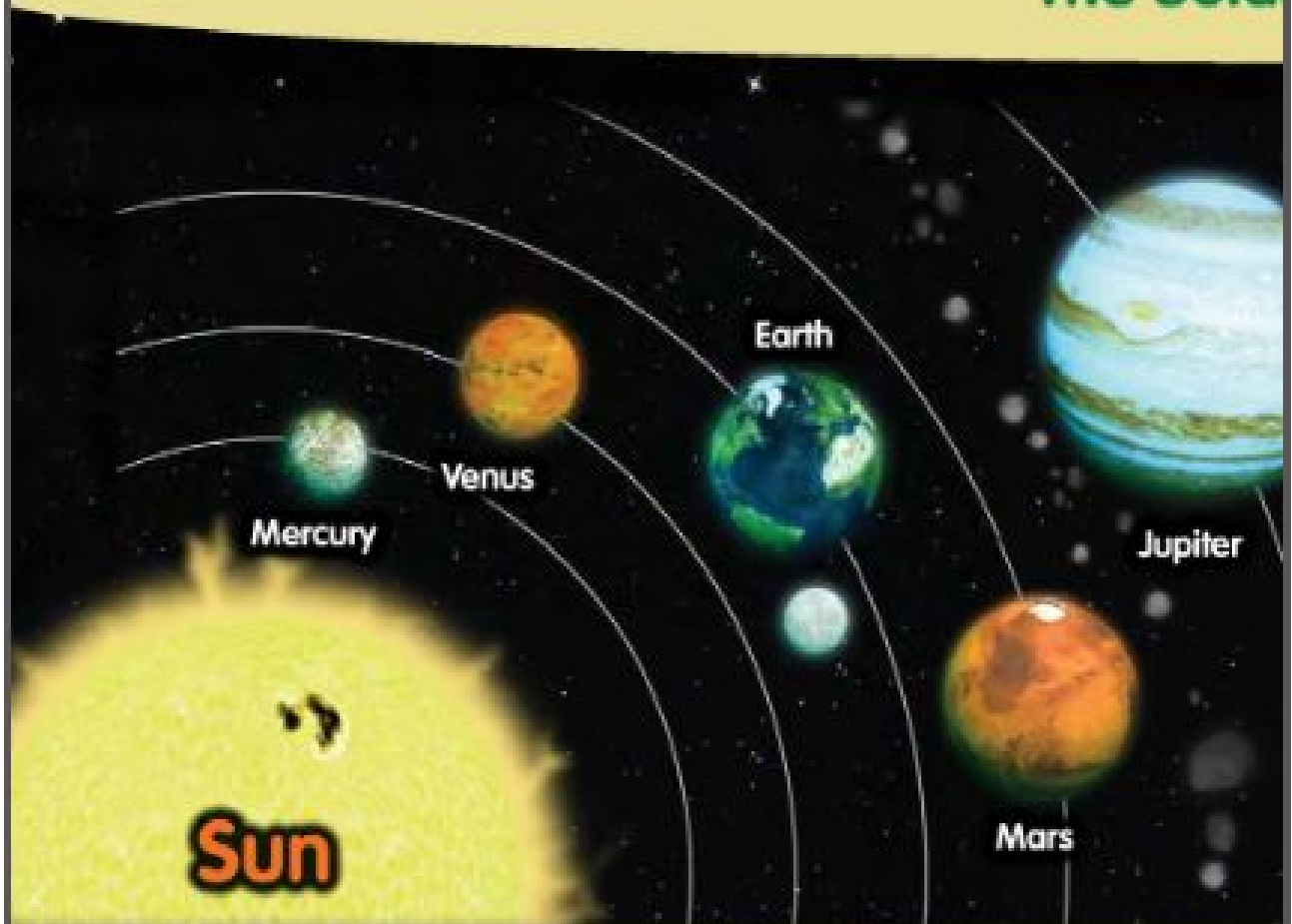
What do you think is going to happen when Brian arrives?

C Vocabulary Work: Tired Words

We overuse some of our words. We call these words **tired** words, e.g. 'Thief! Cat! Cat-Thief!' he **screamed**. The author uses the word screamed instead of **said** to make the sentence more interesting.

1. Write three more words **from the text** used instead of: (a) said (b) walk (c) big.
2. Use your **thesaurus** to write three **more** words for: (a) said (b) walk (c) big.
3. Replace the underlined tired word with a more interesting word.
 - (a) At first, the stallholder was angry.
 - (b) 'Catface, this place is great!' said Silver.
 - (c) 'But you look exactly like each other,' said Silver.
 - (d) 'Catface, this place is nice!' said Silver.
 - (e) The bad monster, known only as Brian, could be heading this way.
 - (f) The smell from the food stalls was bad.

The Solar System



Mercury is the smallest planet in our solar system and it is closest to the sun. It is an airless, rocky planet. It is very hot on the side facing the sun and freezing cold on the other side. Its surface is covered in craters.

Our planet, *Earth*, has exactly the right conditions for life as we know it to survive. It is just close enough to the sun to get light and heat. There is oxygen in the atmosphere and a solid surface to stand on. It is the only planet in our solar system with liquid water.

Jupiter is the largest planet in the solar system. It is a giant gas ball with no solid surface. It is extremely cold, with no suitable atmosphere to breathe. Jupiter has a giant storm spot, where hurricanes rage and never seem to end.

Venus is the brightest planet in the sky at night. It is a little smaller than Earth and like Earth, it has a solid surface, continents and mountains. It is the hottest planet and because of toxic gases in its atmosphere, no life could survive there. It is sometimes called the Morning or Evening Star, as we can see it from Earth. A day on Venus lasts for 262 Earth years!

Mars is smaller than Earth. It is known as the 'Red Planet' because of its dusty, red surface. Mars may once have had rivers, lakes and oceans. The atmosphere is thin with traces of oxygen. Mars has two moons.

r System



Uranus is several times larger than Earth. It is a giant gas ball that spins on its side. It is also known as an ice giant, as it is so cold. It has 27 moons and 11 invisible rings. Scientists think that there could be a huge ocean and diamonds on the surface of Uranus!

Saturn is the second largest planet in our solar system. It is also a giant gas ball. It has 82 moons and it takes 29½ years to go around the sun. Saturn has rings of ice, dust and rock. There are huge hurricane storms on Saturn. Saturn is so light that it would float on water!

Pluto is called a dwarf planet, or planetoid. It is smaller than Earth's moon. It takes 249 years to travel around the sun. It is a very cold, dark place. Pluto was named after the Roman god of the Underworld by an 11-year-old English girl! (The Roman god Pluto is also known as Hades.)

Neptune is the third largest planet in our solar system. It gets its name from the Roman god of the sea, because the gases in its atmosphere give it a beautiful blue colour. It is also a gas and ice giant. It has a great dark spot caused by a giant storm. It is a very windy planet!