



Year 6

Home Learning Pack

Week 12

Monday 29th June – Friday 3rd July

English

It's a strange time to be in Year 6. Normally, you'd be celebrating your time at primary school and preparing to move to your next big adventure, but things will be different for this year. To help you capture the special moments with your friends and teachers at primary school, James Carter, a poet who regularly visits schools, has put together a writing activity so you never forget. We'll be looking at poetry this week as part of further reflections upon your time at Durley. We'll pick up some hints and tips from the experts on how poetry can be written and 'have a go' at several styles throughout the week.

Maths – daily online lessons

BBC Bitesize Daily Maths Lessons including videos, worksheets and interactive games. For each BBC lesson there are:

- Online teaching videos (you can pause and re-watch at any time!).
- An online resource sheet of questions (you don't have to print it – complete on paper!).
- An online answer sheet to self-mark (saves a parent or carer having to work it all out!).

Please read the timetable carefully so you know which lesson you'll be completing as the dates are from a week earlier. Luckily, each lesson has its own unique URL (page) which I've copied into the timetable for quick online access – the worksheets and answers are included in this pack.

Much like the White Rose Hub content, these BBC Bitesize lessons I've chosen to follow as they recap and consolidate skills that you'll need to embed before Year 7 in September and I think this is a super idea! In other words, revisiting things you may have learned a while back to make sure you can still do it!

Daily Jobs

As before, there will be several daily jobs you are expected to complete including:

1. SPaG activities.
2. Guided Reading Activities.
3. Spelling Practise – 1 or 2 pages daily from your Spelling revision guide you have not yet completed or SPaG activities using the BBC link below.
4. Times Table Rock Stars or NumBots (same login details as TTRS).
<https://play.numbots.com/#/account/school-login/28579>
5. Independent Reading or reading to/with an adult/sibling.

Extension Activities

If you fancy an extra challenge after sailing through the Maths at speed or want to dabble in some Science, SPaG, Spelling, History or something else, why not visit the links below which have been recommended by the Government. **There's even a ['What to expect in Year 7' video](#) that is very helpful to watch!**

- <https://www.thenational.academy/>
Search for a subject you would like to learn about and watch the videos from the virtual teachers!
- <https://www.bbc.co.uk/bitesize/dailylessons>
Tons of individual videos and tasks (some taught by celebrities) updated daily.

Look out for extra Classroom Dojo posts for other random activities we'll be sending your way for bonus dojos as well as videos giving hints and tips for the day's activities! On the next page is the suggested timetable...

	<u>English</u>	<u>Maths</u>	<u>Daily Jobs</u>
Monday 22nd June	Funny/Best Memories as Haikus: 5 syllables 7 syllables 5 syllables	BBC Maths Lesson for the 15 th June. Forming and solving 2 step equations. https://www.bbc.co.uk/bitesize/articles/zmw83j6	<ol style="list-style-type: none"> 1. Daily SPaG activity (in pack). 2. Guided Reading Activities (in pack). 3. Spelling Practise - pages from your Spelling revision guide you have not yet completed or SPaG using the BBC link. 4. Times Table Rock Stars or NumBots (same login details as TTRS and only available until the end of June!). https://play.numbots.com/#/account/school-login/28579 5. Independent Reading or reading to/with an adult/sibling.
Tuesday 23rd June	Using Malou Evans' 'Even Though I am Old' poem to reflect on each Year at Durley.	BBC Maths Lesson for the 16 th June. Use substitution to find values: https://www.bbc.co.uk/bitesize/articles/zv44f82	
Wednesday 24th June	Conversation/question memories poem. Using the example from: https://poetrysociety.org.uk/education/learning-from-home/a-million-brilliant-moments-by-james-carter/	BBC Maths Lesson for the 17 th June. Convert metric measures: https://www.bbc.co.uk/bitesize/articles/zt883j6	
Thursday 25th June	Creating a memory poem in the style of James Carter's example 'The Shooting Stars': https://poetrysociety.org.uk/education/learning-from-home/a-million-brilliant-moments-by-james-carter/	BBC Maths Lesson for the 18 th June. Convert between miles and km: https://www.bbc.co.uk/bitesize/articles/zypy6g8	
Friday 26th June	Looking at MORERAPS poems – a way to create a short poem on a theme devised by poet Joseph Coehlo. https://www.youtube.com/watch?v=S_txb_C2PIU Create 3 of your own! Metaphor, Onomatopoeia, Repetition, Emotion, Rhyme, Alliteration, Personification and Simile.	BBC Maths Lesson for the 19 th June – Maths Challenges. We'll discuss the answers in school on Monday – give them a good go! https://www.bbc.co.uk/bitesize/articles/zkywr2p	

Consolidating Redrafting – Sentences

Consolidating Redrafting – Sentences

<p>1a. Complete the labels for nouns (N), verbs (V) and adjectives (A) below.</p> <p>A young wizard was in the library,   learning about curious myths.  </p> <p> VF </p>	<p>1b. Complete the labels for nouns (N), verbs (V) and adjectives (A) below.</p> <p>The wizard was called Dante and he was   looking for important information.  </p> <p> VF </p>
<p>2a. Which sentence contains the fronted adverbial which makes the most sense and/or adds the most interesting detail?</p> <p>1. Early every morning, Dante believed the stories.</p> <p>2. Deep in his heart, Dante believed the stories.</p> <p> VF </p>	<p>2b. Which sentence contains the fronted adverbial which makes the most sense and/or adds the most interesting detail?</p> <p>1. All through his childhood, he had heard about dangerous beasts.</p> <p>2. When scary beasts were described, he had heard about dangerous beasts.</p> <p> VF </p>
<p>3a. Underline the relative clause in the sentence below.</p> <p>Dante stretched up for a forgotten book which was difficult to reach.</p> <p> VF </p>	<p>3b. Underline the relative clause in the sentence below.</p> <p>The book, which was full of mysterious pictures, glowed.</p> <p> VF </p>
<p>4a. Underline the extra information given as parenthesis below.</p> <p>Dante read an unknown spell out loud (something you should never do).</p> <p> VF </p>	<p>4b. Underline the extra information given as parenthesis below.</p> <p>Suddenly, a circle of light – a strange, twisting sort of light – appeared on the floor.</p> <p> VF </p>

Consolidating Redrafting – Sentences

Consolidating Redrafting – Sentences

<p>5a. Complete the labels for nouns (N), verbs (V) and adjectives (A) below.</p> <p>Dante, a wizard who had let curiosity overwhelm him, had muttered an unfamiliar spell, and now a mysterious circle of light was occupying the floor.</p> <p> VF</p>	<p>5b. Complete the labels for nouns (N), verbs (V) and adjectives (A) below.</p> <p>Dante was not sure what ancient magic he had awoken, but he recognised this might be an opportunity to have a marvellous adventure.</p> <p> VF</p>
<p>6a. Which sentence contains the fronted adverbial which makes the most sense and/or adds the most interesting detail?</p> <p>1. As Dante crept towards the glowing ring, he perceived a variety of symbols inside it, all of them foreign to his eyes.</p> <p>2. Inside the ring, he perceived a variety of symbols inside, all of them foreign to his eyes.</p> <p> VF</p>	<p>6b. Which sentence contains the fronted adverbial which makes the most sense and/or adds the most interesting detail?</p> <p>1. A week or so earlier, Dante checked his pronunciation of the original spell to persuade himself it was safe.</p> <p>2. Conscious of his trembling voice, Dante checked his pronunciation of the original spell to persuade himself it was safe.</p> <p> VF</p>
<p>7a. Underline the relative clause in the sentence below.</p> <p>The symbols, which were in a language Dante did not recognise, were surely meant to communicate something.</p> <p> VF</p>	<p>7b. Underline the relative clause in the sentence below.</p> <p>His thoughts were interrupted by a polite cough from the High Wizard's secretary, who had suddenly materialised behind him.</p> <p> VF</p>
<p>8a. Underline the extra information given as parenthesis below.</p> <p>Dante was terrified – the High Wizard dealt harshly with individuals he deemed mischievous – so he tried desperately to protest his innocence.</p> <p> VF</p>	<p>8b. Underline the extra information given as parenthesis below.</p> <p>The secretary was not a wizard (she lacked the necessary powers) so was determined to use this opportunity to accompany Dante on an adventure.</p> <p> VF</p>

Consolidating Redrafting – Sentences

Consolidating Redrafting – Sentences

9a. Complete the labels for nouns (N), verbs (V) and adjectives (A) below.

The High Wizard's secretary, Gwendoline, who had always been a bit miffed at her distinct lack of magical potency, was beseeching Dante to let her go with him.

GD VF

9b. Complete the labels for nouns (N), verbs (V) and adjectives (A) below.

"Methinks it an ill-conceived idea to enter the magic circle," cautioned Dante, eyeing the iridescent ring he had inadvertently summoned.

GD VF

10a. Which sentence contains the fronted adverbial which makes the most sense and/or adds the most interesting detail?

- Given his terrible relationship with Lord Regulus' predecessor, Dante was reluctant to provoke the ire of the incumbent Head Wizard.
- As a result of his natural anarchic streak, Dante was reluctant to provoke the ire of the incumbent Head Wizard.

GD VF

10b. Which sentence contains the fronted adverbial which makes the most sense and/or adds the most interesting detail?

- "If we play our cards right, we might get trapped betwixt our destination and whence we have come!" fretted Dante.
- "If we set foot in the portal, we might get trapped betwixt our destination and whence we have come!" fretted Dante.

GD VF

11a. Underline the relative clause in the sentence below.

Dante, who was gobsmacked to hear Gwendoline condemn him as a 'craven bore', tried to explain his reluctance.

GD VF

11b. Underline the relative clause in the sentence below.

Unperturbed by Dante's naysaying, Gwendoline strode towards the portal, which had begun emitting a fiery aura.

GD VF

12a. Underline the extra information given as parenthesis below.

"When I return anon from whatever undiscovered (and hopefully amiable) destination I reach, you'll be eating your words!" she declared.

GD VF

12b. Underline the extra information given as parenthesis below.

"Oh, stuff it," muttered Dante, as he followed Gwendoline – unmagical and hitherto timorous – into the enchanted circle he had conjured.

GD VF

Consolidating Redrafting – Sentences

Consolidating Redrafting – Sentences

1a. Rewrite the sentence below, changing adjectives and verbs to make it more interesting.

Erika moved her car into position, stopping right in the centre of the wet track.



A

1b. Rewrite the sentence below, changing adjectives and verbs to make it more interesting.

Her scared heart was beating in her chest and her breaths were short.



A

2a. The sentence below is the start of a new paragraph in a story. Rewrite it, adding a fronted adverbial to make the timing of the action clearer.

Erika was experiencing a lot of pressure.



A

2b. The sentence below is the start of a new paragraph in a story. Rewrite it, adding a fronted adverbial to make the setting of the action clearer.

Erika's rival, Klaus, was thinking about the dangerous last corner.



A

3a. Sentence two is a redrafted version of sentence one.

1. Klaus was surprised at Erika's increased speed.
2. Klaus, who had assumed she would be timid, was surprised at Erika's increased speed.

Is sentence two better than sentence one? Explain your answer.



R

3b. Sentence two is a redrafted version of sentence one.

1. Erika guided the car around an extremely tight corner.
2. As she turned around a bend, Erika guided the car around an extremely tight corner.

Is sentence two better than sentence one? Explain your answer.



R

Consolidating Redrafting – Sentences

Consolidating Redrafting – Sentences

<p>4a. Rewrite the sentence below, changing adjectives and verbs to make it more interesting.</p> <p>Erika’s car had a clever system which told her if the temperature of her engine got too high.</p> <p> A</p>	<p>4b. Rewrite the sentence below, changing adjectives and verbs to make it more interesting.</p> <p>The driver of the vehicle in front of her frequently moved across the track like a bad amateur.</p> <p> A</p>
<p>5a. The sentence below is the start of a new paragraph in a story. Rewrite it, adding a fronted adverbial to make the setting of the action clearer.</p> <p>The race officials and referees watched replays to determine whether a penalty should be given.</p> <p> A</p>	<p>5b. The sentence below is the start of a new paragraph in a story. Rewrite it, adding a fronted adverbial to make the timing of the action clearer.</p> <p>Klaus’ driving became more aggressive and desperate, and was tinged with noticeable frustration.</p> <p> A</p>
<p>6a. Sentence two is a redrafted version of sentence one.</p> <p>1. The driver ahead of Klaus was a real nuisance and tough to overtake.</p> <p>2. The driver ahead of Klaus, who was in front of him on the track, was a real nuisance and tough to overtake.</p> <p>Is sentence two better than sentence one? Explain your answer.</p> <p> R</p>	<p>6b. Sentence two is a redrafted version of sentence one.</p> <p>1. Erika’s brakes felt considerably weaker but she was determined to win.</p> <p>2. Erika’s brakes felt considerably weaker (her braking assistance system had failed) but she was determined to win.</p> <p>Is sentence two better than sentence one? Explain your answer.</p> <p> R</p>

Dear Diary,

Saturday 14th September, 1806

Today was the start of something special. Father and I, along with my brother Joseph, went down to the beach, below Blue Lias Cliffs, on the hunt for treasure. Father had told me about these treasures called **Curiosities**, and he said that he would help me learn to locate them. I love dearly spending time with Father and Joseph, especially on the coast. And now that I have been introduced to these wonders, I want nothing more than to spend every spare moment searching for them, no matter what the weather. Father says I have 'a keen eye' for hunting them out!

Dear Diary,

Friday 17th January, 1807

As you know, I have been **refining** my skills in Father's workshop. Being able to **prize** these Curiosities from their rocky shells is a delicate task, one which requires great patience. Using small, sharp tools I gently hammer and scrape around the **protruding** features, and then with brushes I dust away the fine **particles** until the Curiosity, in all its **wondrous** glory, is revealed. Joseph and I have decided that we could sell these treasures on a stall outside our home. Even though Father works hard in his trade as a carpenter, his business is not enough to see us comfortably so the extra money would be helpful. We are certain that they will catch the eyes of many. How can anyone not be **intrigued** by their fine shapes?

Dear Diary,

Saturday 28th January, 1807

As predicted, many of the people living in Lyme Regis have passed our stall and been **enticed** by our Curiosities. Some say they look like the Devil's claws! I can see why they might think this, but I'm more **inclined** to see them as beautiful treasures that the Earth has offered up to us. But there was this lady who paid them particular attention. She **caressed** them gently and admired them with a higher degree of interest. Her name is Elizabeth Philpot and I am sure that we will become firm friends.

You see, she asked my father if she could take me back to her home as she wanted to show me her collection. I was so eager that Father would have had a hard time refusing. When she **unveiled** them I was absolutely stunned. She had an **abundance** of them! Yet she did not call them Curiosities; she called them **fossils**. Fossils. I like the word. Although not as magical as Curiosities, 'fossils' is certainly more scientific. She explained that fossils are ancient sea creatures, and then she **mused**: 'who knows what beautiful monsters might still be out there to discover.'

She talked at great lengths about them and, like a sponge, my mind soaked up every word. Before leaving, she passed me a tower of books and told me to work my way through them. I plan on **devouring** those books in rapid succession. I cannot detail how excited I am. What an incredible day!

Dear Diary,

Tuesday 14th November, 1810

Father had been unwell for quite some time. Seeing his body and spirit **decline** was terrible. But he is at peace now. We must be strong and find a way forward before poverty **ravages** us.

Dear Diary,

Sunday 15th November, 1811

Although I should now be completely drained of energy, having spent the last few days and nights chipping and dusting away, I am filled with **immense** excitement. A few days ago, after many hours scanning the rocks and **crevices**, my clever brother discovered the most incredible find. It was too large for us to carry, so we employed the services of the **quarrymen** to dig up and transport this **colossal** find back to our home. Elizabeth told me that there were monsters out there to be found, and found it we have. The eye of this creature is the size of my face; I can only imagine what the rest of its body is like.

Dear Diary,

Monday 21st December, 1811

After searching between the cliffs of Lyme Regis and Charmouth I made the next greatest discovery. I found the body belonging to the creature's head that we found a number of weeks back. Once I had fully rescued the fossils from the clay claws of the Earth, I invited Elizabeth over to see it. She brought with her a gentleman from London, who **scrutinised** the fossils for some time. I am not one to boast but I could see that from the look upon his face, he was overcome with **astonishment**; in that moment I knew that I had brought into our world something of great scientific discovery. An ichthyosaurus he called it. The word translates as 'fish-lizard', which I think is incredibly **apt** for this 11ft mystery that now lies, holding on to its secrets, in my attic. However, the best is yet to be mentioned. This gentleman wants to deliver the fossil to the museum in London and as a reward for my findings he gave me the princely sum of 25 pounds! Father would have been so proud.

Dear Diary,

Friday 18th November, 1833

Perhaps you will laugh when I say that the death of my old faithful dog quite upset me; the cliff fell upon him and killed him in a moment before my eyes, and close to my feet. It was but a moment between me and the same fate. I have always been aware that fossil hunting under the cliffs, especially after the storms have battered them, is incredibly dangerous. Yet in spite of this danger, Tray and I have always **ventured** to find new fossils because it is after these storms that the hunt is more fruitful. He was such a wonderful **companion** and I know that I will miss him dearly. Poor, poor Tray.

Dear Diary,

Monday 12th April, 1838

There was a time when I felt that the world had used me so unkindly, I feared that I would become suspicious of everyone. After discovering the ichthyosaurus, a plesiosaurus, the pterodactylus macronyx and the squaloraja, I began to wonder when my name would be recognised as the one who unearthed them. I know that I am a woman and from a lower social class, but it angers my every **fibre** that credit should not be given to me due to these circumstances.

However, today I received a letter that has changed my thinking and enabled me to hope that a better path will be **forged** by women of science in the future. I have been awarded an **annuity** from the British Association for the Advancement of Science. This now means I can comfortably continue to study in this field.

Knowing that we are embarking on a great scientific journey fills me with immense pride and excitement. We are slowly waking ourselves up to the **notion** that the creatures we see today have evolved from ancestors before them. We are becoming inclined to believe that the world is far older than we had imagined and that sadly for us a great number of incredible beasts are now extinct. But with the determination to devour all knowledge available to us, we can slowly put together the jigsaw pieces of our incredible world.

classroomsecrets.com

The Diaries of Mary Anning – Y5m/Y6s (Black) – Text

Like this? Find more differentiated Historical resources [here](#).

What is meant by the phrase ‘the princely sum’?

Find and copy the simile that is used in the diary entry dated ‘Saturday 28th January, 1807’

How did Mary know that she had ‘brought into our world something of great scientific discovery’?

Mary Anning wrote, ‘*I have always been aware that fossil hunting under the cliffs, especially after the storms have battered them, is incredibly dangerous*’. Explain why you think the cliffs are more dangerous at this time.

Read the following line from the third diary entry: ‘*Some say they look like the Devil’s claws! I can see why they might think this, but I’m more inclined to see them as beautiful treasures that the Earth has offered up to us.*’ What does this tell you about how Mary feels about the ‘Curiosities’? Explain your answer using the text as reference.

Look at the diary entry dated ‘Tuesday 14th November, 1810’. Describe the difference this entry has compared to all of the others and explain why you think it has been written like this.

Summarise the last diary entry dated 'Monday 12th April, 1838' explaining how Mary is feeling at this point in her life.

Why did the author chose to repeat the word 'poor' in the phrase 'Poor, poor Tray.'?

Identify three key features that these diary entries have that make them differ to any information text you have read about Mary Anning.

- 1) _____

- 2) _____

- 3) _____

Identify which diary entry captures your interest and explain why. What has the author done to create the impact you have felt?

The Diaries of Mary Anning – Vocab 1

Write the meaning of each of these words.

curiosities _____

refining _____

prise _____

protruding _____

particles _____

wondrous _____

intrigued _____

enticed _____

inclined _____

caressed _____

unveiled _____

abundance _____

fossils _____

mused _____

devouring _____

decline _____

ravages _____

immense _____

crevices _____

quarrymen _____

colossal _____

scrutinised _____

astonishment _____

apt _____

ventured _____

companion _____

fibre _____

forged _____

annuity _____

notion _____

Synonyms are words that have similar meanings, for instance: 'large' and 'big' are synonyms of each other. Write another two synonyms for the following words.

refining: _____

intrigued: _____

caressed: _____

unveiled: _____

mused: _____

Antonyms are words that are opposite in meaning, for instance: 'large' and 'small' are antonyms of each other. Write another two antonyms for the following words.

abundance: _____

immense: _____

astonishment: _____

companion: _____

inclined: _____

Find the following words in the word search:

- ichthyosaurus
- devour
- annuity
- plesiosaurus
- ancestors
- extinct
- paleontologist
- science

e	n	c	y	t	y	s	r	o	t	s	e	c	n	a	e
x	i	c	h	t	h	y	o	s	a	u	r	u	s	n	x
t	s	t	p	h	y	o	r	c	c	s	i	e	n	n	t
i	o	n	r	p	l	e	s	i	o	s	a	u	r	u	s
n	l	p	u	t	h	y	i	e	n	m	e	n	e	i	t
c	s	c	o	t	h	e	c	n	e	i	c	s	s	t	y
t	e	a	v	e	x	t	i	m	c	t	u	y	i	y	l
p	a	l	e	a	n	t	o	l	o	g	i	s	t	e	a
r	d	e	d	x	c	e	t	r	y	i	o	u	l	o	n

The Diaries of Mary Anning – SPAG

A semi-colon is used to join two closely related sentences together without the use of a comma or conjunction. For example: 'The eye of this creature is the size of my face; I can only imagine what the rest of its body is like.'

Re-write the following sentences replacing the comma and conjunction with a semi-colon:

1) I was completely astonished, because the gentleman gave me 25 pounds.

2) My father was a carpenter by trade, but his avocation was fossil hunting.

3) The cliffs had been battered by the storms, so fossil hunting was now dangerous.

Commas are used for clarity, breaking up sentences so that they make sense. Rewrite the following sentences inserting the commas correctly:

1) Father and I along with my brother Joseph went down to the beach below Blue Lias Cliffs on the hunt for treasure.

2) I have always been aware that fossil hunting under the cliffs especially after the storms have battered them is incredibly dangerous.

Prefixes are added to the fronts of words to change their meaning. 7 new words can be made using the prefixes and words below. Match the correct prefix to the correct word and then re-write the whole word out:

re

un

dis

veil

approve

do

place

visit

Think together

1 What is Lexi's number?



Multiply your number by 3 and add 4.

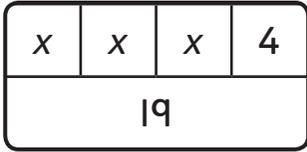
Lee

My answer is 19.



Lexi

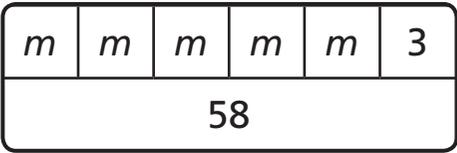
$$\begin{array}{rcl}
 3x + \square & = & \square \\
 - \square & & - \square \\
 3x & = & \square \\
 \div \square & & \div \square \\
 x & = & \square
 \end{array}$$



2 Solve the following equations.

a) $5m + 3 = 58$

b) $17 = 2q + 5$



CHALLENGE

- 3 a) A kettle has a capacity of 600 ml.
Richard fills 3 cups from the kettle.
He has 30 ml left over.

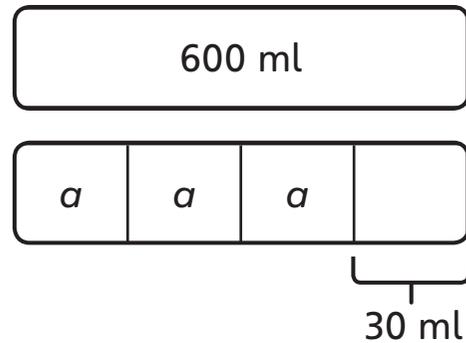
What is the capacity of 1 cup?

Use a for the capacity of the cup.

$$\square a \text{ (circle) } \square = 600 \text{ ml}$$

$$3a = \square$$

$$a = \square$$



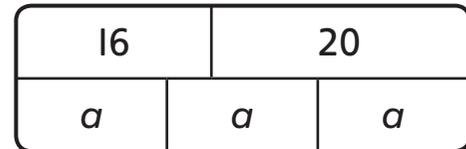
- b) Solve the following equations.

i) $3a - 20 = 16$

ii) $20 = 2p + 8$

iii) $4c - 6 = 14$

iv) $2p + 8 = 21$



I will draw different bar models to represent the equations.

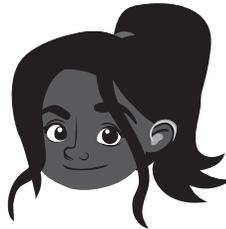


Solving equations 3

1 Complete and solve the equation for each mystery number problem.

a) I am thinking of a number.
I multiply it by 3 and then
add 2. Now I have 17.

Isla



$$\begin{array}{rcl}
 3a + \boxed{} & = & \boxed{} \\
 - \boxed{} & & - \boxed{} \\
 3a & = & \boxed{} \\
 \div \boxed{} & & \div \boxed{} \\
 a & = & \boxed{}
 \end{array}$$

b) I am thinking of a number.
I multiply it by 4 and then
add 80. Now I have 100.

Ebo



b	b	b	b	80
100				

$$\begin{array}{l}
 \boxed{} b + \boxed{} = \boxed{} \\
 b = \boxed{}
 \end{array}$$

2 Solve $50 = 15 + 5c$.

15	
50	

Answers

Activity 1: two-step equations worksheet

1) $3x + 4 = 19$

Subtract 4 from both sides

$$3x = 15$$

Divide both sides by 3

$$x = 5$$

Lexi's number is 5.

2.a): $m = 11$

2.b): $q = 6$

3.a): $3a + 30\text{ml} = 600\text{ml}$

$$3a = 570 \text{ ml}$$

$$a = 190 \text{ ml}$$

3.b) i) $3a - 20 = 16$

$$a = 12$$

ii) $20 = 2p + 8$

$$p = 6$$

iii) $4c - 6 = 14$

$$c = 5$$

iv) $2p + 8 = 21$

$$p = 6.5 \text{ or } 6\frac{1}{2}$$

Activity 2: Solving equations worksheet

1. a) $3a + 2 = 17$

$$\begin{array}{r} -2 \\ 3a + 2 = 17 \\ \hline \end{array}$$

$$3a = 15$$

$$\begin{array}{r} \div 3 \\ 3a = 15 \\ \hline \end{array}$$

$$a = 5$$

b) $4b + 80 = 100$

$$b = 20$$

2) $50 = 15 + 5c$

$$35 = 5c$$

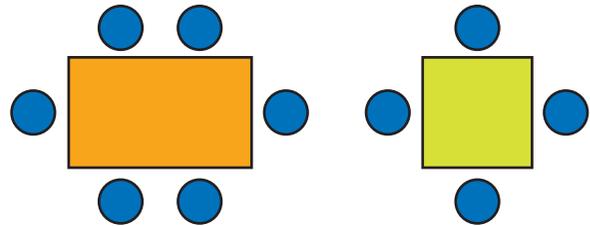
$$c = 7$$

Think together

- 1 There are two kinds of table. The class needs 30 seats. Find different solutions.

There are m tables for 6 people and n tables for 4 people.

m + $n = 30$



6	24
---	----

12	18
----	----

--	--

--	--

--	--

Total number of people	If $m = ?$	Then $n = ?$
30	1	
30	2	

- 2 There are some chickens and rabbits in a field. There are 35 heads and 94 legs in total. How many chickens and how many rabbits are in the field?

35 heads in total means the total number of chickens and rabbits is 35.



Number of chickens	Number of rabbits	Number of legs
1	34	$(1 \times 2) + (34 \times 4) = 138$
2	33	$(2 \times 2) + (33 \times 4) = 136$

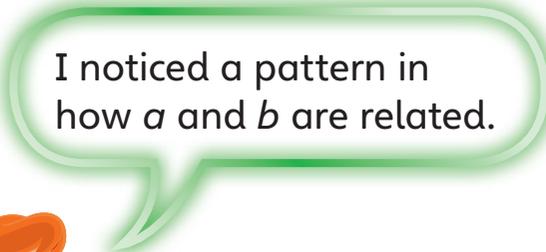

CHALLENGE

- 3** a) Find five different solutions to each equation.

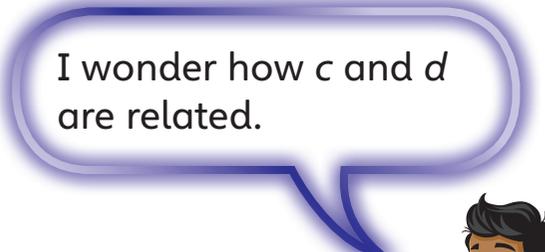
$$100 = 20a + 10b$$

$$100 = 10c - 20d$$

Can you find all the possible solutions?



I noticed a pattern in how a and b are related.

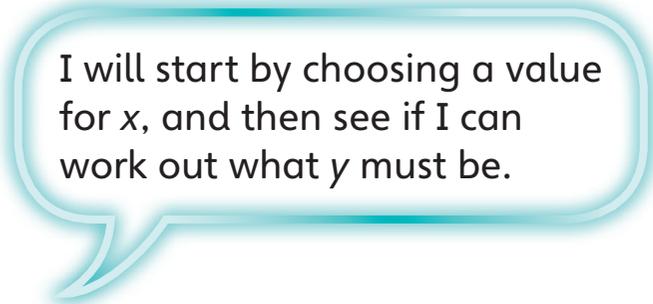
I wonder how c and d are related.



- b) Describe the patterns in the solutions to these equations.

$$x + 30 = y - 70$$

$$20s = 100 - 2t$$



I will start by choosing a value for x , and then see if I can work out what y must be.



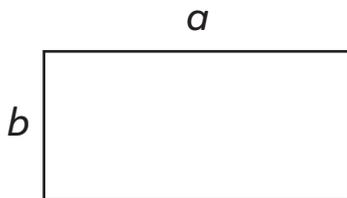
Solving equations 5

- 1 Alex has some 2p coins and some 5p coins. In total she has 25p. How many of each coin could she have?

Find all possible solutions.



- 2 A rectangle has a perimeter of 24 cm and an area less than 30 cm^2 . Both the length and the width are whole numbers. Find all possible solutions.



Not to scale



Answers

Activity 1: Algebra worksheet

1 : $6m + 4n = 30$.

Total number of people	If $m = ?$	Then $n = ?$
30	1	6
30	2	4.5
30	3	3
30	4	1.5
30	5	0

The combinations of tables which give exactly 30 seats are:

1 × 6 seater and 6 × 4 seater

3 × 6 seater and 3 × 4 seater

5 × 6 seater and no 4 seater

2 : There are 23 chickens and 12 rabbits in the field.

3.a: Five possible solutions are:

$a = 1, b = 8;$

$a = 2, b = 6;$

$a = 3, b = 4;$

$a = 4, b = 2;$

$a = 5, b = 0;$

Five possible solutions are:

$c = 10, d = 0;$

$c = 11, d = 0.5;$

$c = 12, d = 1;$

$c = 13, d = 1.5;$

$c = 14, d = 2$

3 b: For the equation $x + 30 = y - 70$, the pattern is that y is always 100 more than x .

For the equation $20s = 100 - 2t$, the pattern is that as s increases by 1, t decreases by 10.

Using a table to find solutions will make it easier to spot these patterns.

Activity 2: Solving equations worksheet

1. Two possible solutions:

$3 \times 5p$ and $5 \times 2p$

$1 \times 5p$ and $10 \times 2p$

25p could also be made using $5 \times 5p$ coins but this would not satisfy the question since Alex also has 2p coins.

2. Assuming lengths are whole numbers, there are six possible solutions:

$a = 1 \text{ cm}, b = 11 \text{ cm}$ (area = 11 cm^2)

$a = 11 \text{ cm}, b = 1 \text{ cm}$ (area = 11 cm^2)

$a = 2 \text{ cm}, b = 10 \text{ cm}$ (area = 20 cm^2)

$a = 10 \text{ cm}, b = 2 \text{ cm}$ (area = 20 cm^2)

$a = 3 \text{ cm}, b = 9 \text{ cm}$ (area = 27 cm^2)

$a = 9 \text{ cm}, b = 3 \text{ cm}$ (area = 27 cm^2)

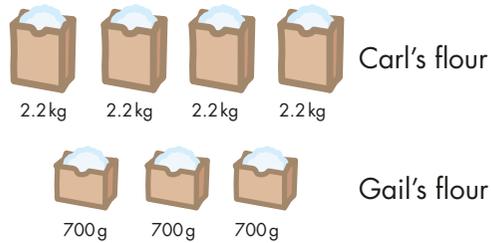
Measuring weight

You will need to know how to read scales and change between units, such as kilograms to grams, for these questions. Good luck!

Time filler:

Weigh a packet of biscuits (it does not matter if they are partly eaten). Write the amount in grams (g) and then again in kilograms (kg). Weigh some vegetables and fruits and record these amounts in grams and then in kilograms, too.

- 1 Who has the most flour and by how much?



.....

- 2 Danny needs to buy 20 kg of potatoes for a restaurant. The potatoes come in 2.5 kg bags.

How many bags will Danny need to buy?

- 3 Change each amount to grams (g).

a. 1.6 kg

b. 3.55 kg

c. 0.63 kg

- 4 In 2009, the average weight of a man was 84 kg and the average weight of a woman was 69 kg.

What is the difference in average weights?

- 5 Change each amount to kilograms (kg).

a. 674 g

b. 2,045 g

c. 7,500 g

- 6 Amir puts on 0.45 kg weight after eating a big meal. Before the meal, Amir weighed 36.5 kg.

How much does Amir weigh after the meal?

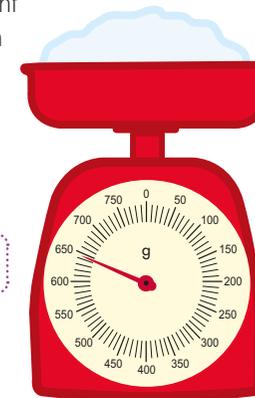
- 7 A builder needs 200 kg of sand in order to make cement. Sand comes in bags of 25 kg.

How many bags will the builder need?

- 8 A box of Flakeyweats weighs 860g when full. A quarter of the box has been used.

How much is left?

- 9 What weight is shown on this scale?



- 10 Show this weight on the scale.



Measuring liquids

Test your knowledge of using liquid volume measurements, such as litres and millilitres.

Time filler:

Are you quicker converting litres (l) to millilitres (ml) or millilitres to litres? Give these a try and use the timer to find out: $0.8\text{l} = \dots \text{ml}$; $2.35\text{l} = \dots \text{ml}$; $450\text{ml} = \dots \text{l}$; $8,050\text{ml} = \dots \text{l}$; $32\text{ml} = \dots \text{l}$

- 1 Change each amount to millilitres (ml).

a. 1.85 litres

b. 0.65 litres

c. 0.04 litres

- 2 A milk carton contains 3.408 litres of milk when full.

How much milk is there in the carton when it is half full?

- 6 A bottle of health drink contains 800g of liquid.

How much liquid will be held in six bottles?

- 7 A litre is about 1.76 pints. Change each amount to pints.

a. 3 litres

b. 5 litres

c. 10 litres

- 3 In the UK, we sometimes measure liquid in pints instead of litres. A litre is a bit less than two pints.

Change each amount to pints (rounded to the nearest whole pint).

a. 5 litres

b. 10 litres

c. 15 litres

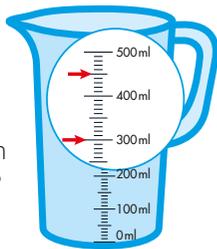
- 8 A cube has a volume of 125 cubic centimetres (cm^3).

What will be the volume of six cubes?

- 9 A can of drink holds 440 ml.

How much drink will there be in three cans? Give the answer in litres.

- 4 This is part of a scale from a measuring jug. What are the amounts shown by the arrows?



- 5 Change each amount to litres.

a. 450 ml

b. 2,100 ml

c. 12,000 ml

- 10 In the UK, we sometimes measure liquids in gallons. A gallon is about 4.5 litres.

Work out each amount in litres.

a. 4 gallons

b. 10 gallons

c. 0.5 gallons

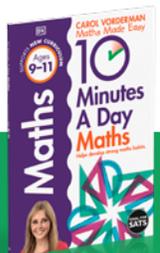


Suitable for 9–11 years | Check the last page of this pack for the correct answers

For more home learning activities go to [dk.com/stay-home-hub](https://www.dk.com/stay-home-hub)

Content from: *10 Minutes a Day Maths Ages 9-11*

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Answers:

Measuring liquids

<p>① Who has the most flour and by how much?</p> <p>Carl's flour 2.2kg 2.2kg 2.2kg 2.2kg</p> <p>Gail's flour 700g 700g 700g</p> <p>Carl - 6.7kg</p>		<p>⑥ Amir puts on 0.45 kg weight after eating a big meal. Before the meal, Amir weighed 36.5 kg.</p> <p>How much does Amir weigh after the meal?</p> <p>36.95kg</p>	<p>⑦ A builder needs 200 kg of sand in order to make cement. Sand comes in bags of 25 kg.</p> <p>How many bags will the builder need?</p> <p>8</p>
<p>② Danny needs to buy 20 kg of potatoes for a restaurant. The potatoes come in 2.5 kg bags.</p> <p>How many bags will Danny need to buy?</p> <p>8</p>	<p>③ Change each amount to grams (g).</p> <p>a. 1.6 kg 1,600g</p> <p>b. 3.55 kg 3,550g</p> <p>c. 0.63 kg 630g</p>	<p>⑧ A box of Flakeywhats weighs 860 g when full. A quarter of the box has been used.</p> <p>How much is left?</p> <p>645g</p>	
<p>④ In 2009, the average weight of a man was 84 kg and the average weight of a woman was 69 kg.</p> <p>What is the difference in average weights?</p> <p>15kg</p>	<p>⑤ Change each amount to kilograms (kg).</p> <p>a. 674 g 0.674kg</p> <p>b. 2,045 g 2.045kg</p> <p>c. 7,500g 7.5kg</p>	<p>⑨ What weight is shown on this scale?</p> <p>645g</p>	<p>⑩ Show this weight on the scale.</p> <p>0.45 kg</p>

This work has two main parts. The first part is knowing the relationship between grams and kilograms and being able to change between them. The second part is the ability to measure using weights and scales in digital and analogue forms.

Measuring weights

<p>① Change each amount to millilitres (ml).</p> <p>a. 1.85 litres 1,850ml</p> <p>b. 0.65 litres 650ml</p> <p>c. 0.04 litres 40ml</p>	<p>② A milk carton contains 3.408 litres of milk when full.</p> <p>How much milk is there in the carton when it is half full?</p> <p>1.704 litres (1,704 ml)</p>	<p>⑥ A bottle of health drink contains 800g of liquid.</p> <p>How much liquid will be held in six bottles?</p> <p>4,800g (4.8 kg)</p>	<p>⑦ A litre is about 1.76 pints.</p> <p>Change each amount to pints.</p> <p>a. 3 litres 5.28 pints</p> <p>b. 5 litres 8.80 pints</p> <p>c. 10 litres 17.6 pints</p>
<p>③ In the UK, we sometimes measure liquid in pints instead of litres. A litre is a bit less than two pints.</p> <p>Change each amount to pints (rounded to the nearest whole pint).</p> <p>a. 5 litres About 10 pints</p> <p>b. 10 litres About 20 pints</p> <p>c. 15 litres About 30 pints</p>	<p>⑧ A cube has a volume of 125 cubic centimetres (cm³).</p> <p>What will be the volume of six cubes?</p> <p>750cm³</p>	<p>⑨ A can of drink holds 440 ml.</p> <p>How much drink will there be in three cans? Give the answer in litres.</p> <p>1.32l</p>	
<p>④ This is part of a scale from a measuring jug. What are the amounts shown by the arrows?</p> <p>300 ml and 450 ml</p>	<p>⑤ Change each amount to litres.</p> <p>a. 450 ml 0.45l</p> <p>b. 2,100 ml 2.1l</p> <p>c. 12,000 ml 12l</p>	<p>⑩ In the UK, we sometimes measure liquids in gallons. A gallon is about 4.5 litres.</p> <p>Work out each amount in litres.</p> <p>a. 4 gallons 18l</p> <p>b. 10 gallons 45l</p> <p>c. 0.5 gallons 2.25l</p>	

Volumes can be confusing to children but they need to know and be able to use the main units of volume and convert between them. Children need to be able to calculate volumes using simple measuring devices.

Sometimes the child can be confused by volume being given as a weight. For example, some liquids will be given as grams rather than the expected litres or millilitres.

Convert between miles and kilometres

One mile is approximately 1.6 km


 km

- 1 A car travelled for **65 miles**, then stopped for petrol. How many kilometres had the car travelled?

- 2 It is **19.2 kilometres** from Henri's house to Didier's house. How many miles is this?

 miles

- 3 This table shows the distances from Wesley's house. Convert them to the nearest kilometre.

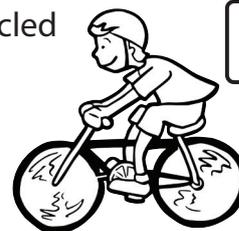
Henby – 15 miles	Catbridge – 34 miles	Cowburgh – 47 miles
------------------	----------------------	---------------------

Henby km

Catbridge km

Cowburgh km

- 4 Dean cycled **5 miles** and stopped for a drink. Then he cycled for another **5 miles**. How many kilometres did he ride?


 km

- 5 A road sign in France said 'Paris – **40 km**'. How many miles was it to Paris?

 miles

- 6 Jasmine travelled **100 km** by train. To the nearest mile, how many miles did she travel?

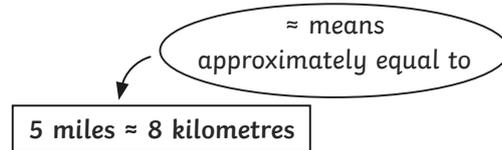
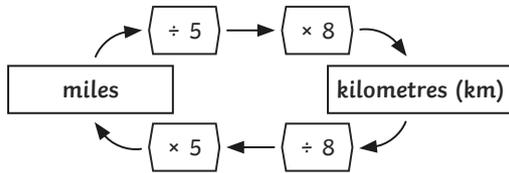
 miles

1) Tick the statements that show a measurement you would record in miles.

- The distance from London to Birmingham.
- The length of a football pitch.
- The length of the Amazon river.
- The length of your school field.



2) Use the information below to help you convert between miles and kilometres and complete the tables.

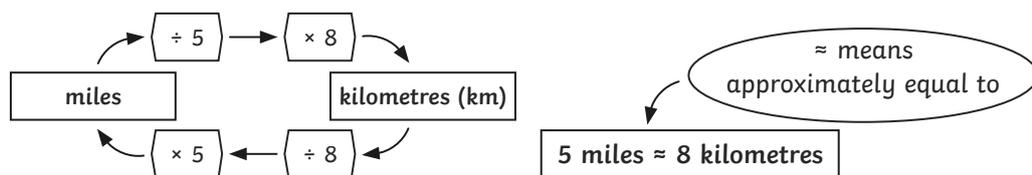


a)

Miles	Kilometres
10	
15	
	48
100	
1	

b)

Kilometres	Miles
32	
	40
400	
	120
7.2	



1) Are these statements always, sometimes or never true?

- a) A mile is longer than a kilometre. _____
- b) The distances between some places are measured in miles, others are measured in kilometres. _____
- c) 12km is a distance between 7-8 miles. _____

2) Three children have worked out approximately how many kilometres there are in 15 miles.



Alice:
15 miles = 24km

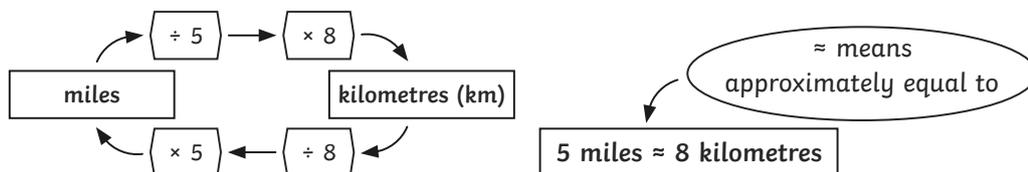
Which child do you think is correct? Explain why.



Freya:
24km \approx 15 miles



Harry:
15 miles \approx 30km



- 1) Team Roadracer and Team Tornado are competing in a long-distance car rally. Each driver has recorded their distances so far.

a) Convert each distance to the alternative unit.

Team Roadracer

Rod: 960km \approx _____

Rachel: 1120km \approx _____

Ruaridh: 2080km \approx _____



Team Tornado

Tod: 790 miles \approx _____

Trish: 1055 miles \approx _____

Tori: 1245 miles \approx _____



b) Approximately how far has Team Roadracer driven so far? Give your answer in miles.

c) Approximately how much further than Team Roadracer has Team Tornado driven so far? Give your answer in kilometres.

d) Team Roadracer has completed $\frac{4}{5}$ of the race. How long is the whole race in kilometres?

- 2) Team Warmwheels are taking part in a 3250 mile motorbike race. By the end of the third day, they had completed 1800km.

a) In kilometres, approximately how long is the entire race?

b) In kilometres, approximately how far did Team Warmwheels have left to drive?



On day 4, Team Warmwheels drove a further 600 kilometres.

On each day that followed, they drove 40 kilometres further than the day before.

c) How many days did it take Team Warmwheels to complete the whole race?

ANSWERS

Page 103

- 1 104 km
- 2 12 miles
- 3 24 km, 54 km, 75 km
- 4 16 km
- 5 25 miles
- 6 63 miles



- 1) The distance from London to Birmingham.
 The length of a football pitch.
 The length of the Amazon river.
 The length of your school field.

2) a)

Miles	Kilometres
10	16
15	24
30	48
100	160
1	1.6

b)

Kilometres	Miles
32	20
64	40
400	250
192	120
7.2	4.5

1) a) This is always true as 1 mile \approx 1.6km.



b) This is never true. I can use miles or kilometres to record any distance. The reason I might choose to use miles or kilometres would probably depend on where I lived. UK for example uses miles to describe distances whereas most of Europe uses kilometres.

c) This is always true as 12km \approx 7½ miles.

2) Alice is not correct as she has used = instead of \approx .

Freya is correct as 24km \approx 15 miles.

Harry is not correct as he has just doubled the number of miles to estimate the number of kilometres.

1) a) Team Roadracer:

Rod: 960km \approx 600 miles

Rachel: 1120km \approx 700 miles

Ruaridh: 2080km \approx 1300 miles

Team Tornado:

Tod: 790 miles \approx 1264km

Trish: 1055 miles \approx 1688km

Tori: 1245 miles \approx 1992km



b) 2600 miles

c) Team Roadracer has driven 4160km.

Team Tornado has driven approximately 4944km which is approximately 784km more.

d) 4160km \div 4 = 1040km

$\frac{1}{5}$ of the race = 1040 km

1040 km \times 5 = 5200km

$\frac{5}{5}$ or 1 whole race = 5200km

2) a) The entire race is approximately 5200km.

b) Team Warmwheels had 3400km left to drive (5200km - 1800km)

c) Day 1 to 3: 5200km - 1800km = 3400km

Day 4: 3400km - 600km = 2800km

Day 5: 2800km - 640km = 2160km

Day 6: 2160km - 680km = 1480km

Day 7: 1480km - 720km = 760km

Day 8: 760km - 760km = 0km left to race

It took Team Warmwheels 8 days to complete the entire race.

Family Challenge

Friday 19th June

Challenge 1

Rani has 38p.



How much money does Eva have?

Challenge 2

If

$$\triangle \times \triangle = 25$$

and

$$\circ \times \circ = 100$$

Work out the value of

$$\triangle \times \circ$$

Challenge 3

A sequence is made up of three 2-digit numbers.

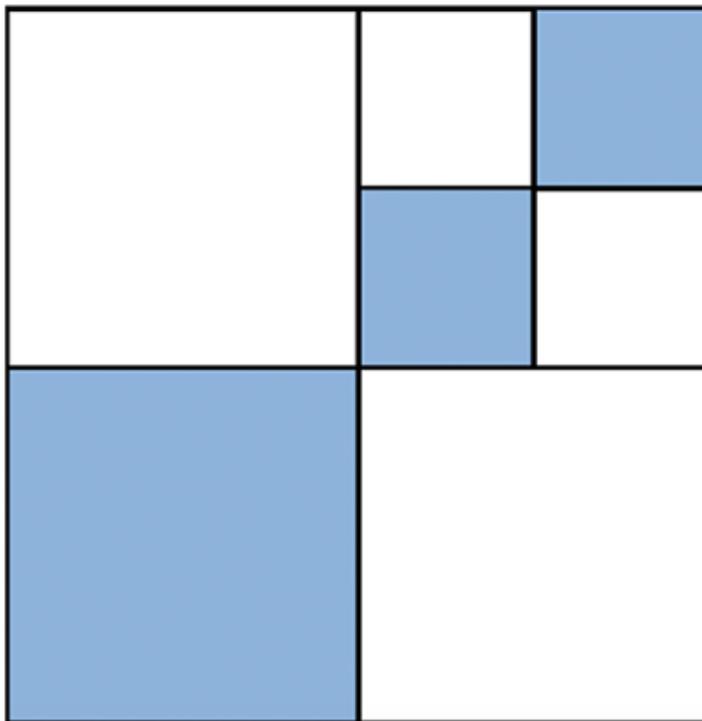
The sequence increases by eight each time. These are the digits that make up the three numbers.



Work out the numbers in the sequence.

Challenge 4

A square is divided into smaller squares.



What fraction of the square is shaded?

Challenge 5

The mass of an empty jar is 470 g.



6 marbles are placed in the jar.



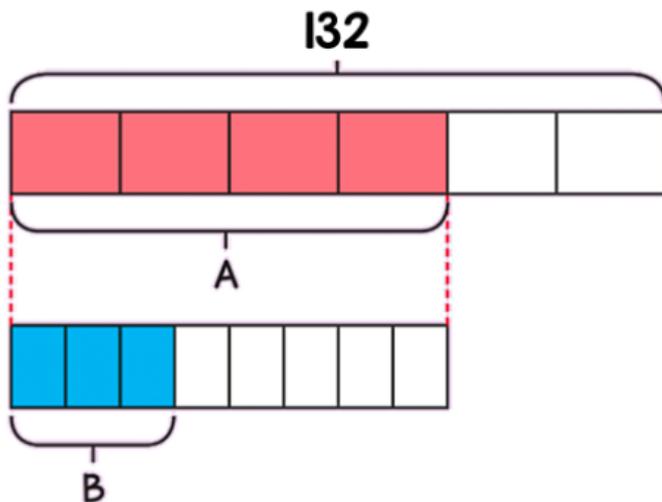
The total mass of the jar and marbles is now 1.1 kg.

Two of the marbles are removed.

What is the mass of the jar and marbles now?

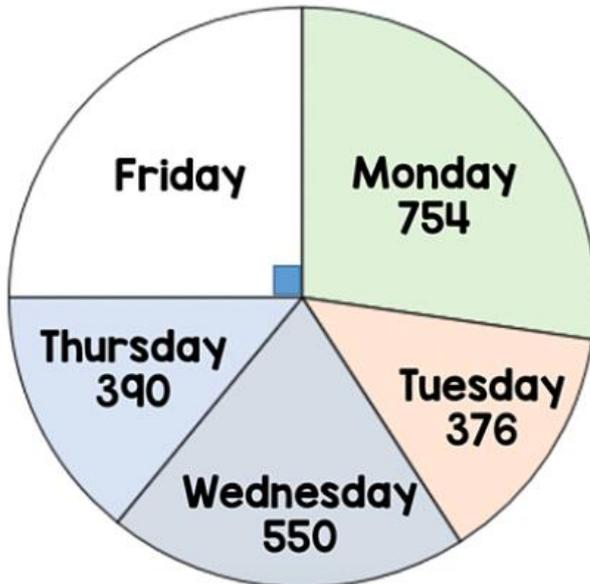
Challenge 6

Work out the value of B.



Challenge 7

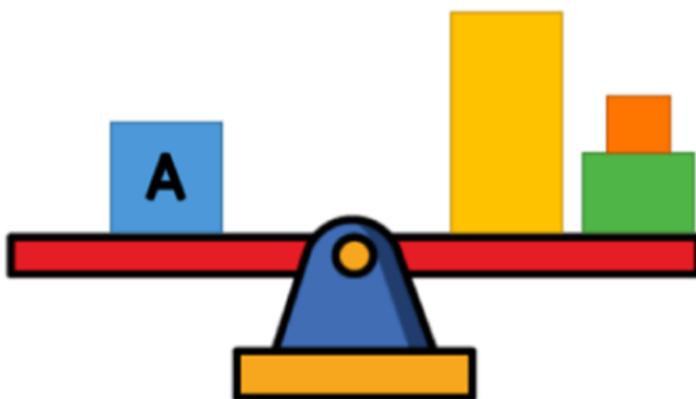
The pie chart shows the number of visitors to a museum each day.



How many people visited on Friday?

Challenge 8

Four blocks are balanced on a scale.



The mass of A is 220 g.

What is the mean mass of all the blocks?

Challenge 9

Here is rectangle A.



Rectangle B is $\frac{1}{5}$ longer than A



Rectangle C is $\frac{1}{5}$ longer than B



The total length of all three rectangles is 133 cm.

How much longer is rectangle C than B?

Challenge 10

At 12pm there are 855 people in the zoo.

By 5pm $\frac{4}{5}$ of the children have left and $\frac{3}{4}$ of the adults have left.

There are now 36 more children than adults in the zoo.

How many adults were in the zoo at 12pm?

As a rough guide of difficulty level:

- **Challenge 1 and 2** are suitable for ages 5 to 7.
- **Challenge 3 to 6** are suitable for ages 7 to 11.
- **Challenge 7 to 10** are suitable for ages 11 to 15.

We want everyone to get involved with challenge day, so work together to solve as many as you can and share your solutions!



Even Though I Am Old

Even though I am old, please remember that
This body, this face, this mind, this soul,
Was once just like yours.
Like the **Matryoshka dolls**,
Inside me are my three other selves,
Hidden, but not forgotten.

I have **acquired** a lifetime of experience,
An **encyclopaedic** library that is ready for you to explore.
But in this library you are not hushed;
You are encouraged to open those books:
Chat, laugh, cry!
You have questions; I have answers.
You only need to ask.

Childhood is a mixture of magic and mystery.
Imaginations **ignited**.
The world you live in
Becomes one of your own creation.
In between learning the rules at school and home,
You and your friends will be your own rule makers:
No land **unconquerable**,
No beast unbeatable,
No superpower unclaimed.
You live in a **technicoloured** world that only children can see.
Adults are so **pre-occupied** by their grown-up lives,
That they are completely **unsuspecting**
Of the **perils** and **mischief** that surrounds them.

If you are fortunate in these early years,
The only pain you'll **encounter** is
The sting of a cut knee, the cutting comment of a friend,
Or the disappointment of hearing the answer 'no'.

Days are endless,
Years go on forever.
Don't be in such a rush to make them pass by.
Relish them.
Enjoy not having the responsibilities of the world in your hands.
You have all that to come.

Teenage years will move you away from the imagined world.
Narnia will no longer be your playground;
That door is now firmly shut.
Life is now about creating a real world
And sculpting yourself into a new identity.

Like a caterpillar **metamorphosing** into a beautiful butterfly,
You will push at the boundaries of your **chrysalis**,
Flexing your muscles and clothing yourself in colours that mark who you are.
You are so desperate to fly and see what the world has to offer,
But although you are fully formed, your wings are not yet ready.
You will have to wait for your freedom.

But don't be in such a hurry.
Before you rush to explore the world,
Make sure you have all the tools you need
To make your adventure safer, easier and more exciting.

As you walk through the doors into **adulthood**,
You are given your licence to make whatever choices you choose.
Your path is one which you will carve out for yourself,
And the possibilities are **numerous**.

But remember this:
With every choice made, comes responsibility,
So choose wisely.
Be quick to **restrain** that child-like excitement
And remain on the right path.

But if ever you fall, or stray into unknown or dangerous territory,
Please remember this:
You are not too old to be picked up,
You are not too old to be comforted,
And you are not too old to ask for advice.

So even though I am old,
Although my eyes may no longer see you perfectly,
Or my ears hear you properly,
I am still that child, that teenager, that adult that you are.
I have experienced it all, either for myself or **vicariously** through others.
So whatever life throws at you,
Both happy and sad,
If you want to share it with someone who knows,
Someone who can offer guidance or simply listen,
Then remember that I am still here.

By Malou Evans

classroomsecrets.com

Even Though I Am Old – Y5m/Y6s (Black) – Text

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