St Denys Primary School

Year 5 and Year 6

Home Learning

Week beginning: 15th June 2020

Creativity, Choice, Challenge Achievement for All

Year 5 and Year 6 - Home Learning

Whilst we are not expecting you to replicate school at home, it will be important that you all try to do some work each school day to keep your skills up.

And don't forget to stay active!

As you will already know, schools are not yet open for all children.

In this booklet you will find a range of different activities and tasks that you can choose to complete during the week.

There is also a separate booklet for each class that will contain your new spelling words and your daily Times Table Rockstar challenge. These can be collected from the school office or downloaded online.

Each morning your teacher will still be saying 'Hello' on Class Dojo. You'll also be able to ask any questions or just them about what you have been up to! As your teachers will be in school, remember they might not be able to respond straight away. You will still be able to post things to your Class Dojo portfolio but it might not always be your teacher who approves and leaves comments for you.
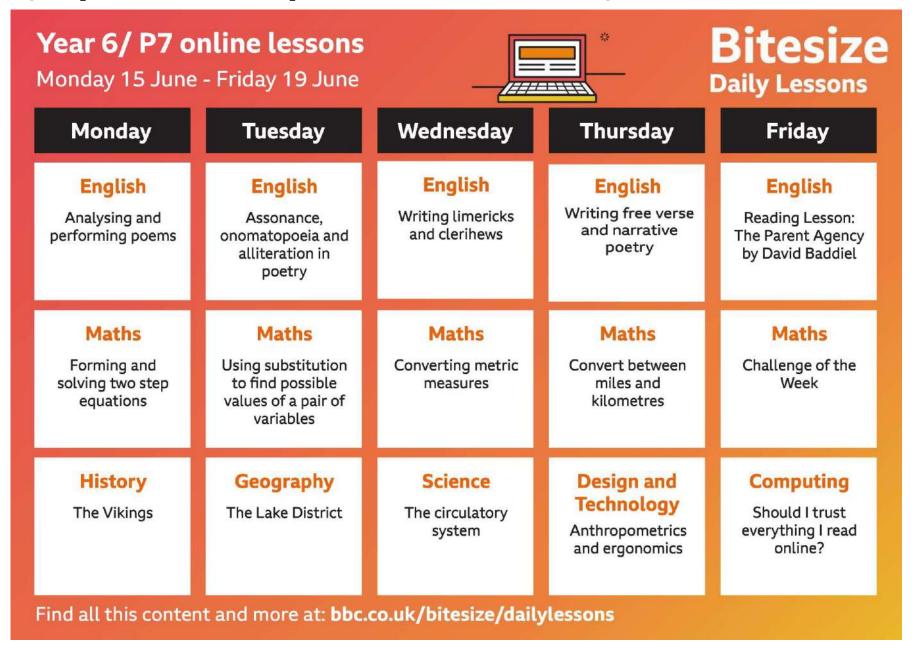
Class 5, if you want to try some online lessons, check out BBC Bitesize.

Year 5/ P6 online lessons
Monday 15 June - Friday 19 June

Bitesize
Daily Lessons

Monday	Tuesday	Wednesday	Thursday	Friday
English Analysing and performing poems	**English** Imagery and figurative language in poems	**English** Writing a nonsense poem	**English** Writing a narrative poem	**English** Reading lesson: The Parent Agency by David Baddiel
Maths The percent symbol and its meaning	**Maths** Write percentages as a fraction and a decimal	**Maths** Adding decimals using formal method and involving exchange	**Maths** Add decimals with different decimal places	**Maths** Challenge of the week
History The Vikings	**Geography** The Lake District	**Science** The circulatory system	**Design and Technology** Structures	**Computing** Should I trust everything I read online?

Find all this content and more at: **bbc.co.uk/bitesize/dailylessons**

Lessons are available daily. Here is the schedule for this week.

Class 6, if you want to try some online lessons, check out BBC Bitesize.

Year 6/ P7 online lessons
Monday 15 June - Friday 19 June

Bitesize Daily Lessons

Monday	Tuesday	Wednesday	Thursday	Friday
English Analysing and performing poems	**English** Assonance, onomatopoeia and alliteration in poetry	**English** Writing limericks and clerihews	**English** Writing free verse and narrative poetry	**English** Reading Lesson: The Parent Agency by David Baddiel
Maths Forming and solving two step equations	**Maths** Using substitution to find possible values of a pair of variables	**Maths** Converting metric measures	**Maths** Convert between miles and kilometres	**Maths** Challenge of the Week
History The Vikings	**Geography** The Lake District	**Science** The circulatory system	**Design and Technology** Anthropometrics and ergonomics	**Computing** Should I trust everything I read online?

Find all this content and more at: bbc.co.uk/bitesize/dailylessons

Lessons are available daily. Here is the schedule for this week.

Year 5 and Year 6 Spelling Words

accommodate	conscience	existence	muscle	rhythm
accompany	conscious	explanation	necessary	sacrifice
according	controversy	familiar	neighbour	secretary
achieve	convenience	foreign	nuisance	shoulder
aggressive	correspond	forty	occupy	signature
amateur	criticise	frequently	occur	sincere
ancient	curiosity	government	opportunity	sincerely
apparent	definite	guarantee	parliament	soldier
appreciate	desperate	harass	persuade	stomach
attached	determined	hindrance	physical	sufficient
available	develop	identity	prejudice	suggest
average	dictionary	immediate	privilege	symbol
awkward	disastrous	immediately	profession	system
bargain	embarrass	individual	programme	temperature
bruise	environment	interfere	pronunciation	thorough
category	equip	interrupt	queue	twelfth
cemetery	equipped	language	recognise	variety
committee	equipment	leisure	recommend	vegetable
communicate	especially	lightning	relevant	vehicle
community	exaggerate	marvellous	restaurant	yacht
competition	excellent	mischievous	rhyme	

How many of these spelling words can you read and write?

Can you use any of these words in your own sentences?

Weekly Writing Challenge

This week, you are going to plan and write a short story. The idea for your story is '**A Day in the Life of a Pet**'.

Imagine you are someone's pet. You can be anywhere and belong to anyone.

Here are some examples:

- A snake who feels he is misunderstood and just wants to be cuddled.
- A hamster who thinks he is a superhero and must rescue the cat from the dog.
- A bird who is afraid of flying.
- A tarantula who is madly in love with his owner.
- A stick insect who thinks she is a supermodel.
- A rabbit who hates having big ears.

Remember to:

- Plan your story with a beginning, middle and end. How are you going to hook the reader at the start? Create a storyboard to tell your story.
- Organise your ideas into paragraphs.
- Choose your words carefully to entertain the reader.
- Write in sentences. Try to think of really good descriptive words to use.
- Pay attention to your spelling and punctuation.
- Read, check and edit your work carefully.
- Decide how you are going to publish your story: writing it out, typing it, making a book?

A Day in the Life of a Pet

1.	2.	3.	4.

5.	6.	7.	8.

Identifying with a Character

Why is she there?
What is she thinking?
Who is she?
Where is she going?
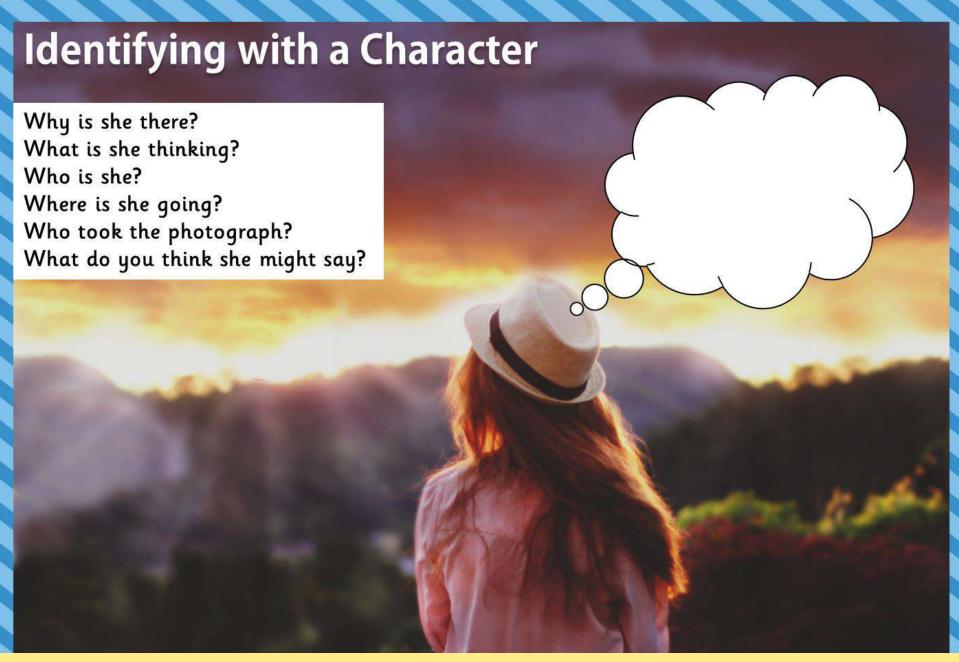Who took the photograph?
What do you think she might say?

How many different words can you think of to use instead of the word beautiful?

Descriptive Writing

This is an orang-utan from Borneo.
Make notes on:

- its hair
- its eyes
- its mouth
- its fingers
- its body position in the photo

Next turn your notes into a paragraph describing the orang-utan's appearance.
Use thesauruses to help you.

Retrieve and Record Information
Non-fiction

Honey Badgers

Despite their name, Honey Badgers are more similar to weasels. They have few predators because of their thick skin and ferocious nature.

Their eyes are small, and their ears are little more than ridges which helps avoid damage while fighting. Their feet have very strong claws, which are short on the hind legs and long on the front legs. Their fur changes depending on the season, to cope with the weather.

Honey badgers live alone in holes. They are skilled diggers, able to dig tunnels into hard ground in 10 minutes. They are one of very few animals known to be able to use tools, such as sticks or heaps of mud. They can attack lions, horses, buffalos and cows without fear, because honey badgers rarely lose energy in a fight, exhausting their opponent and winning. Their favourite food is bee honey, although they will eat insects, frogs, tortoises, rodents, turtles, lizards, snakes, eggs, and birds.

Instructions:

1. Think of a main heading for this text to attract readers.
2. Think of sub headings to fit where the asterixs are (*).
3. Without reading the text again, summarise what you have learnt about Honey Badgers.

Write some safety instructions for visitors to a new Honey Badger farm.

Explanation
Why are flamingos pink?

To write about this, you don't need to know the answer! You can guess!
You can think of crazy explanations e.g. its favourite food is raspberries!
In fact, the more interesting, the better.
Just make sure you really _explain_ yourself.

Predict What Happens Next

A man walks a dog on a beach.
The man's name is Jim.
He's been out walking for some time now. He's not sure he wants to return home.
Who would notice if he never went back?
What if he just slipped away?

He could join the circus. He could travel the USA in a camper van. He could be a life guard on an Australian beach.

Your task:
Describe the moment that Jim decides not to return home.

- How does he feel?
- What does is face look like?
- How does he leave?
- Where is he going?

Make a list of all the things Jim could do instead of having an ordinary job.

Garden Birds

Whether you live in a village, town or city, you will have seen British garden birds in your garden, school grounds or local park. The UK is lucky enough to have many native garden birds. Let's find out about some of them...

Robin

Latin Name:
Erithacus rubecula

With their bright red breast and face, robins are easily noticeable, despite being only around 13cm long. You will often hear them singing into the evening with their high 'tic tic tic' song.

Seen throughout gardens in cities, towns and villages, robins will nest almost anywhere, including in old watering cans or sheds. Between May and July, robins will lay 4-6 eggs in a cup-shaped nest made mainly from moss. The eggs are predominantly white with sandy or red freckles and adult robins may lay a clutch of eggs up to three times per year.

The usual diet of robins consists mainly of insects and their larvae, spiders, worms, weeds, seeds, fruit, berries, nuts and oats. In order to encourage robins into your garden, provide mealworms on a bird table. Robins have the potential to become very tame and may even feed out of your hand!

Blackbird

Latin Name:
Turdus merula

Male blackbirds are usually jet-black with an orange beak, whereas females are dark brown with a brown beak. They are larger than robins, at around 25cm long, and can also be heard singing in the evening with their tuneful song or their 'tchook tchook tchook' alarm call.

Blackbirds are found in a wide variety of habitats, including woodland, fields, gardens, towns, cities and countryside. Originally, blackbirds were woodland birds; still usually found nesting in bushes, shrubs or trees. They use grass, horsehair and fine roots held together with mud to form their nests, which are usually lined with grass. They will lay 3-6 bluish green eggs, spotted with brown, in each clutch and this can occur up to three times per year.

Blackbirds mostly eat insects but have been known to have a very varied diet, including nuts, berries, cheese, fruit, newts and shrews – one of the reasons they thrive in the wild.

Blackbirds are also able to catch worms if the grass is soft enough for them to dig with their beaks.

Wren

Latin Name:
Troglodytes troglodytes

Despite their miniscule size, at only 9-10cm long and 8-13g in weight, wrens are surprisingly not Britain's smallest native bird – a title held by the goldcrest, at just 9cm long and 6g in weight. Although tiny in stature, the wren has the loudest song (relative to their size) of all UK native birds and they can be heard making a loud 'teck teck teck' call ending in a trill (quavering note).

Wrens are good at hiding in amongst trees and bushes, where they build their nests from grass, moss and leaves and line them with soft feathers. To spot an adult wren, look out for brown plumage and a short tail which constantly flicks. The young (juveniles) – born in clutches of 5-8 eggs once or twice per year – are almost identical to their parents except they don't have prominent pale eyebrows. Wrens have a varied diet but mainly choose insects and spiders, which they find along the ground with their beak.

Threats to Garden Birds and How You Can Help

There are things that we use in our gardens which could harm garden birds but you could make a difference by making small changes, such as:

Netting – People use nets in their gardens to stop birds getting to their vegetables, but birds can become tangled in them. If nets are needed, it is best to use fine mesh nets made of natural material, rather than nylon.

Outside Lights – Outside lights can confuse birds causing them to collide with windows as they use the light to navigate. If you have outside lights, ensure they are on a timer so they do not stay on at night.

Artificial Grass – Artificial turf destroys habitats for birds and the insects they eat so it is best to use natural grass wherever possible.

Weed Killers – Weed killers can poison birds or destroy the insects that they feed on. Try to use natural methods to control the insects within your garden, such as by encouraging insect-eating birds or other wild animals, such as hedgehogs, to visit.

Did You Know...?

Although they are not always resident in the UK, nightingales are special summer visitors to parts of southern England. They are very secretive and hard to spot but their melodic song can be heard through the day and night. They are some of the loudest, fastest singers of the bird world!

Questions

1. What is the Latin name of the wren? Tick one.

    ○ Luscinia megarhynchos
    ○ Troglodytes troglodytes
    ○ Turdus merula
    ○ Erithacus rubecula

2. Draw three lines to match each bird to its song.

robin		tchook tchook tchook

wren		tic tic tic

blackbird		teck teck teck

3. What does **trill** mean?

    _____

4. Find and copy **two** things that robins will eat.

    • _____

    • _____

5. What is the problem with using nets in a garden?

    _____

6. Why do you think wrens are so good at hiding?

    _____

    _____

7. Summarise the information from the third paragraph in 40 words or less.

    _____

    _____

    _____

8. Which of the threats do you think is the most problematic? What could you do to help the problem?

    _____

    _____

    _____

9. Why do you think that robins are Britain's favourite bird? Give at least two reasons.

    _____

    _____

    _____

10. Can you think of any other threats to garden birds? What could you do to help the problem?

    _____

    _____

    _____

    _____

British Birds

```
u  n  s  w  i  f  t  j  v  g  c  c
t  a  z  m  k  q  c  f  p  p  i  h
w  x  j  a  c  k  d  a  w  i  w  a
o  i  w  v  s  p  a  r  r  o  w  f
o  w  w  n  o  b  s  c  g  e  o  f
d  x  b  l  a  c  k  b  i  r  d  i
p  g  o  l  d  f  i  n  c  h  m  n
i  g  c  y  u  c  v  t  w  t  a  c
g  u  r  a  x  t  p  n  q  r  g  h
e  r  o  b  i  n  w  u  k  j  p  u
o  z  w  t  f  b  l  u  e  t  i  t
n  b  s  t  a  r  l  i  n  g  e  u
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jackdaw	swift	blue tit
robin	sparrow	blackbird
magpie	wood pigeon	crow
starling	goldfinch	chaffinch

Year 5 Maths: Multiplication and Division

Have a go at this multiplication and division questions. To calculate the answers you will need to use the skills you have already been using in the classroom.

1. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.

a) Tick or cross to show if the numbers are multiples of the given number (the first one is done for you).

number	multiple of 3	multiple of 5	multiple of 6	multiple of 8
24	✓	x	✓	✓
75				
120				
82				

b) List all of the factors of these numbers:

number	factors
12	
20	
36	

c) Write all the **common** factors of each pair of numbers:

numbers	factors
12 and 18	
20 and 24	
20 and 30	

70
total marks

3 marks

3 marks

3 marks

2. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.

a) Draw a circle around all **prime** numbers up to 50;

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

3 marks

b) Choose a number which is a prime number and explain why it is a prime number:

_____

_____

_____

_____

1 mark

c) What are the prime factors of these numbers?

numbers	prime factors
12	
30	

2 marks

• •

3. Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.

Multiply these numbers, using a formal written method:

245 x 8	3,353 x 6

2 marks

483 x 24	1,832 x 45

4. Multiply and divide numbers mentally drawing upon known facts.

Use your knowledge of place value to multiply and divide the following:

600 x 500 =	1,500 ÷ 30 =
80 x 20 x 60 =	3,000 ÷ 60 =
1,600 x 40 =	200,000 ÷ 400 =

5. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.

a) Divide the following, using a formal short method:

456 ÷ 6	1,264 ÷ 8

b) Solve this problem:

A Primary school has 124 pupils. They are having a party and calculate that they will need a jug of juice for every 5 pupils. How many jugs of juice will they need to buy? Show your working out.

6. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.

a) Multiply the following:

number	x 10	x 100	x 1,000
54			
8.3			

b) Divide the following:

number	÷ 10	÷ 100	÷ 1,000
3876			
123.9			
1478.3			

7. Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).

a) What is the next square number after 36?

b) What is the cubed number between 8 and 64?

c) Draw a line to the correct answer:
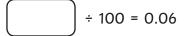
3^2	64
5^3	36
6^2	9
4^3	125

---

8. Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.

Circle whether each statement is true or false (use the space in the box to work out the answers):

All multiples of 10 are multiples of 2 and 5	true / false
$5^2 + 4^3 \; > \; 3^3 + 6^2$	true / false
The third squared number added to the fourth cubed number is an even number.	true / false
All factors of 45 are odd	true / false
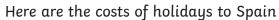
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9. Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

a) Fill in the missing boxes:

$70 \times \boxed{} = 4{,}900$

$(\boxed{} \times \boxed{}) + 80 = 110$

$\boxed{} \div 100 = 0.06$

b) Solve these problems, show your working out:

Here are the costs of holidays to Spain
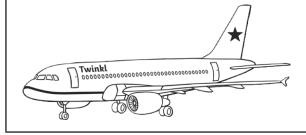
Month	Return Flight cost per adult	Return Flight cost per child	Room cost per room for 1 week
June	£120	£99	£100
July	£145	£115	£130
August	£165	£125	£150
September	£135	£110	£125

i.   The Smith family go on holiday to Spain for 1 week in July. There are 2 adults and 3 children. They need 2 rooms. How much will the holiday cost? Show your working out.

ii. The Patels have two adults and two children in their family and need two rooms. How much more would it cost for the Patel Family to go on holiday to Spain for 1 week in August than it would cost them in July?

iii. The aeroplane that the Griffiths family go on to Spain holds 240 passengers and seats are arranged in rows of 8. How many rows are there?

10. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Here are the ingredients to make 12 cupcakes:

110g butter
110g caster sugar
110g plain flour
2 table spoons baking powder
$\frac{1}{4}$ teaspoon salt
2 medium eggs
1 teaspoon vanilla extract

For their class party, Jodie wants to make 48 cakes. She already has baking powder, salt and vanilla extract in her cupboard. She needs to buy butter, caster sugar, flour and eggs.

a) Work out the cost of those items.

Butter: £1.50 for 250g pack
Caster sugar: £1 for a 200g bag
Plain flour: 75p for 500g bag
Eggs: 6 for £2

Remember you need to have enough of the ingredients!!!

1 Euro is equivalent to £1.26

b) Complete this chart:

Pound	Euro
£1.26	€1
£	€10
£	€30
£	€50
£126	€

4 marks

This chart converts metres to feet:

1 metre	3.28 feet
10 metres	32.8 feet
100 metres	328 feet

c) How many feet are there in 12 metres?

1 marks

d) How many feet are there in 7 $\frac{1}{2}$ metres?

1 marks

Year 6 Maths: Multiplication and Division

Have a go at this multiplication and division questions. To calculate the answers you will need to use the skills you have already been using in the classroom.

Section A

1. Perform mental calculations, including with mixed operations and large numbers.

   Answer the questions your teacher reads out and write the answers in the spaces below.

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

These questions can be found on the answer pages. Ask someone to read them out to you.

10 marks

Section B

2. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.

   Use a **written method** to find the answer to these calculations:

   Show your working out.

3 x 6381	74 x 925

4 marks

3. Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.

a) Use **long division** to find the answer to these calculations:

Show your working out.

$261 \div 4$	$992 \div 22$
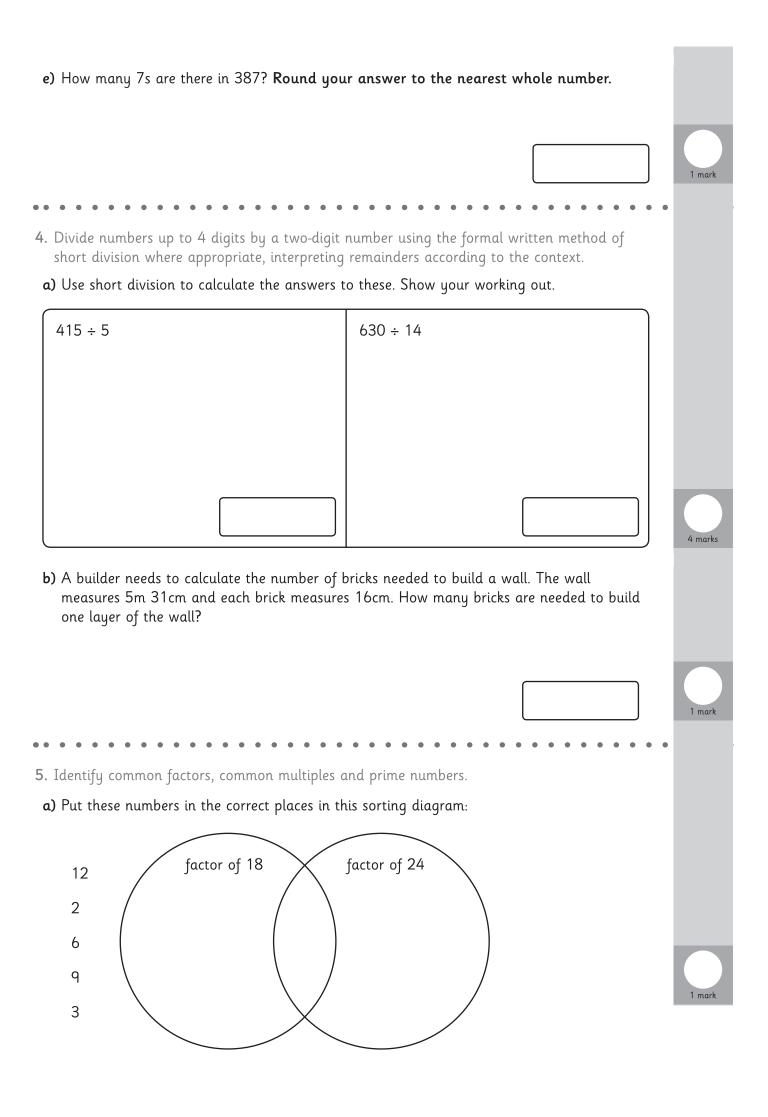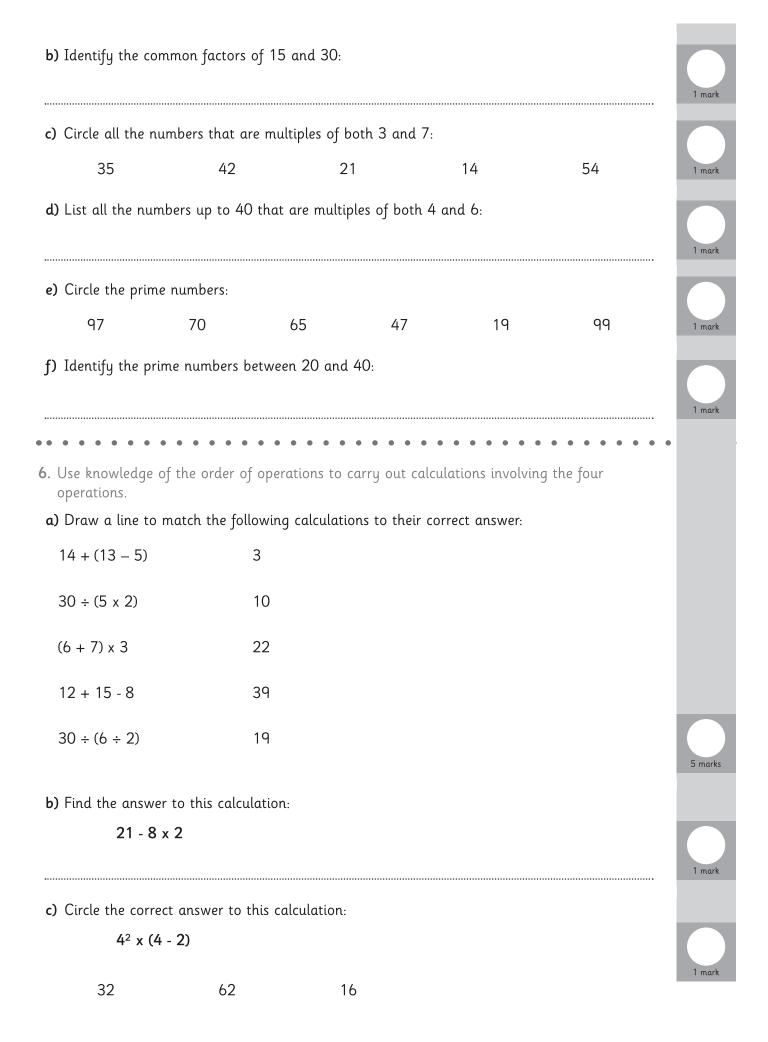
b) Find the answer to this calculation. **Show the remainder as a fraction.**

$256 \div 6 =$

c) At the funfair, a children's train ride can hold a maximum of 8 passengers. How many times will the train have to go around the track so that 35 children can have a ride?

d) At a stationery factory, pencils are packed into boxes of 12. There are 530 pencils left. How many boxes can be filled?

e) How many 7s are there in 387? **Round your answer to the nearest whole number.**

4. Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.

a) Use short division to calculate the answers to these. Show your working out.

415 ÷ 5	630 ÷ 14

b) A builder needs to calculate the number of bricks needed to build a wall. The wall measures 5m 31cm and each brick measures 16cm. How many bricks are needed to build one layer of the wall?

5. Identify common factors, common multiples and prime numbers.

a) Put these numbers in the correct places in this sorting diagram:

12

2

6

9

3

factor of 18   factor of 24

b) Identify the common factors of 15 and 30:

....

c) Circle all the numbers that are multiples of both 3 and 7:

   35   42   21   14   54

d) List all the numbers up to 40 that are multiples of both 4 and 6:

....

e) Circle the prime numbers:

   97   70   65   47   19   99

f) Identify the prime numbers between 20 and 40:

....

6. Use knowledge of the order of operations to carry out calculations involving the four operations.

a) Draw a line to match the following calculations to their correct answer:

$14 + (13 - 5)$ 3

$30 \div (5 \times 2)$ 10

$(6 + 7) \times 3$ 22

$12 + 15 - 8$ 39

$30 \div (6 \div 2)$ 19

b) Find the answer to this calculation:

   $21 - 8 \times 2$

....

c) Circle the correct answer to this calculation:

   $4^2 \times (4 - 2)$

   32   62   16

d) Find the answer to this calculation:

$20 + 3^2$

....

1 mark

• •

7. Solve problems involving addition, subtraction, multiplication and division.

a) Fill in the missing numbers in the diagrams below:

↑ -14

| | ÷2 → | | ÷2 → | 16 |

↑ -14

2 marks

b) Peter uses three of these number cards to make this calculation correct.

6   5   2   8   3

Which cards does he use?

[ ] x [ ] x [ ] = 120

2 marks

c) Fill in the missing numbers:

2	3	2	

6		8

36	

2 marks

d) Complete this Magic Square, so that each vertical, horizontal and diagonal set of numbers has the total of 15:

The magic square can only contain each number from 1-9 once.

4		8
9		
	7	6

8. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

a) Freya is training for a running race, and runs 9 kilometres every day for 31 days. She uses rounding to work out approximately how far she will run in total.

Circle the most sensible answer:

200 kilometres   100 kilometres   300 kilometres   400 kilometres

b) A company makes playground equipment. To make one swing, they use 4.7 metres of rope. Use rounding to calculate roughly how much rope is needed to make 48 swings.

Show your working out.

metres

c) A café sells orange juice in glasses that hold about 475ml. How many 1 litre cartons of juice are needed to fill 9 glasses?

Show your working out.

cartons

Daily News

Volunteer Digs up Dinosaur Discovery

When were dinosaurs alive?

- Dinosaurs first evolved during the Triassic period (252 to 201 million years ago).

- What followed is called the Jurassic period (201 to 145 million years ago).

Illustration: An Elaphrosaur.

Sometimes, a team of scientists work together to make a huge discovery. Sometimes, instead, a chance discovery of a tiny clue is all it takes.

Five years ago during an annual dig at a site called Eric the Red West, near Cape Otway in Australia, a volunteer digger called Jessica Parker found a small delicate fossil.

At the time, it was thought to be from a Pterosaur and so the team safely stored it. However, several years later, when researchers from Swinburne University of Technology in Melbourne, Australia, were looking more closely at the bone they realised it was from something else instead.
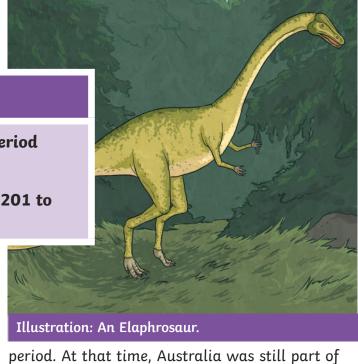
They realised that it was from a rare dinosaur called an Elaphrosaur, "A meat-eating dinosaur, related to Tyrannosaurus rex, Velociraptor, and modern birds," said palaeontologist Dr Poropat.

He went on to say, "as dinosaurs go, they were rather bizarre" because "this 'meat-eating dinosaur' probably didn't eat meat!"

As strange as this sounds, it's because the few Elaphrosaur fossils that exist seem to show that as youngsters they had teeth, but as adults they had a toothless beak!

The site of the discovery shows that the dinosaurs must have been able to withstand the cold.

The fossil was found in rocks dating from the Cretaceous period, which came after the Jurrasic period. At that time, Australia was still part of the Antarctic continent.

As we covered in an article in April, recent research has found evidence that the climate was very different 100 million years ago. In fact, the Antarctic probably had a swampy landscape and forests like those found in New Zealand today.

Nevertheless, Elaphrosauruses would still have had to survive the dark winter months when temperatures dropped below freezing.

What remains remarkable is that all of this new knowledge came from one tiny find by a volunteer.

Who knows what discoveries are still out there to be made?

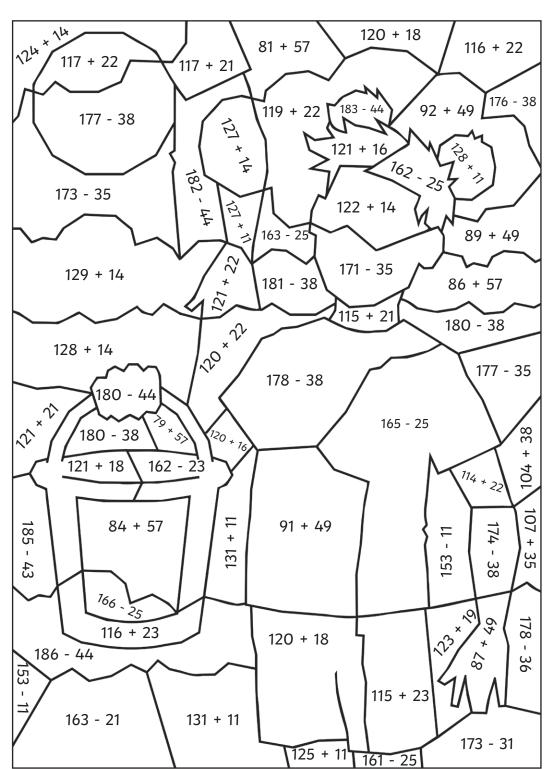| Glossary	
fossil	The remains of prehistoric plants or animals preserved in rock.
Pterosaur	A prehistoric flying reptile.
university	A place where people study at the highest level.
withstand	To remain undamaged by.

Questions

1. In which period did this Elaphrosaur live?

   ○ Triassic
   ○ Jurrassic
   ○ Cretaceous

2. In the paragraph beginning "He went on to say..." which word is used which means very strange or unusual.

   _____

3. According to the article, which dinosaurs is the Elaphrosaur related to? Tick all which apply.

   ○ Tyrannosaurus rex
   ○ Velociraptor
   ○ Stegosaurus
   ○ Pterodactyl

4. From which type of dinosaur did the researchers initially think the bone came from?

   _____

5. How do you think the researcher's felt when they discovered it was a bone from an Elaphrosaur?

   _____

   _____

6. Summarise the key information in this article using 15 words or fewer.

   _____

   _____

   _____

Colour by Calculation

I can add and subtract a three-digit number and a two-digit number.

Reveal a great fundraising idea by using the key to correctly colour each part of the hidden picture.

Skin colour of your choice:	136
Hair colour of your choice:	137
Blue:	138
Yellow:	139
Red:	140
White:	141
Light Green:	142
Dark Green:	143

124 + 14
117 + 22
117 + 21
81 + 57
120 + 18
116 + 22
177 - 38
119 + 22
183 - 44
92 + 49
176 - 38
127 + 14
121 + 16
128 + 11
162 - 25
173 - 35
182 - 44
127 + 11
122 + 14
89 + 49
163 - 25
171 - 35
86 + 57
129 + 14
121 + 22
181 - 38
115 + 21
180 - 38
128 + 14
120 + 22
178 - 38
177 - 35
180 - 44
165 - 25
121 + 21
180 - 38
79 + 57
120 + 16
38 + 101
121 + 18
162 - 23
114 + 22
107 + 35
84 + 57
131 + 11
91 + 49
153 - 11
174 - 38
185 - 43
178 - 36
166 - 25
123 + 19
87 + 49
116 + 23
120 + 18
115 + 23
186 - 44
153 - 11
163 - 21
131 + 11
173 - 31
125 + 11
161 - 25

BBBBZ0209ReginfrtyfrpriduiMtMeferenoti03203Sisicsds:Soiotolnd:r8CSSD039057

Practical Ideas

Design yourself as a superhero and create a comic strip of your adventures.

Create a poster explaining the importance of a healthy lifestyle.

Estimate the area and perimeter of different rooms in your home.

How can you find out if you are correct?

Encourage children to think about what makes them unique or what superpower they would like to have.

Encourage children to think about how they keep themselves healthy and active. Discuss why that is important.

Encourage children to think about the household equipment you might use to measure a room. Is a ruler a sensible compared to a tape measure?

Practical Ideas

Create a comic strip biograph on your favourite sports star or celebrity.

Encourage the children to conduct some research into the star and to make notes using bullet points. Think about the structure of the comic and whether it flows.

Write a review of a book you have recently read.

Encourage children to use descriptive language to describe the story.

Spend 5 minutes each day writing a diary entry.

Encourage the children to write a recount of the day or the previous day using the correct tense, and use figurative language where possible.
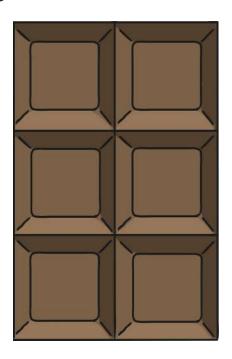
Chocolate Rocks
Science Experiment

There are different types of rock. One kind, called sedimentary rock, has been pushed down by heat and pressure underground.

You will need:
- a bar of milk chocolate and a bar of white chocolate
- a cheese grater
- two plates
- a bowl
- cling film
- knife

Method:

1. Place the grater on a plate and carefully grate the milk chocolate. Be careful using the grater, and ask a grown up for help if you need it.

2. Do the same for the white chocolate on a separate plate.

3. Lay the cling film in the bowl, leaving the ends of the cling film hanging on the outside of the bowl.

4. Put in a layer of milk chocolate, then one of white chocolate.

5. Keep doing this until all the chocolate is used up.

6. Pull the corners of the cling film up and wrap it up.

7. Roll the cling film around in your hands for about five minutes.

8. Leave the chocolate to cool down.

9. Unwrap the chocolate.

10. Using a knife, carefully cut through the chocolate. You will see layers of chocolate just like rocks.

The science:
The heat your hands create and the pressure your hands put on the chocolate act like the heat and pressure applied to rocks underneath the ground.

Science Experiment
Chocolate Rocks

Make sure the layers of chocolate are separate.

When you are rolling the chocolate around, don't press too hard or the chocolate becomes too squidgy and the chocolate layers can't be seen.

Egg White and Yolk
Science Experiment

Sometimes when you are cooking, you need either just the white or just the yolk (the yellow bit) of an egg. This experiment gives you an easy way to separate the parts.

You will need:
- two bowls
- an egg
- an empty plastic drinks bottle

Method:

1. Crack the egg and put it in the bowl. You might need a grown-up to help you with this.

2. Squeeze the bottle and keep it squeezed tight.

3. Put the opening of the bottle on top of the egg yolk.

4. Release the pressure on the bottle so it's no longer squeezed.

5. The yolk will pop up into the bottle.

6. Put the bottle over the other bowl.

7. Squeeze the bottle so the yolk empties into the bowl.

The science:
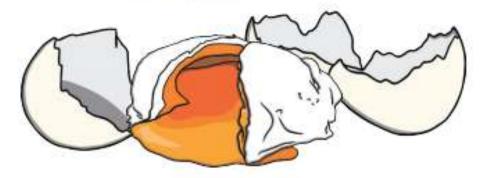
When you squeeze the bottle, air comes out of it. When you release the squeeze, air rushes back into the bottle to fill the space. If the yolk is at the opening of the bottle, it will rush into the bottle instead of air. The reason why only the yolk will be sucked up is because the yolk is thicker than the egg white.

Science Experiment
Egg White and Yolk Activity

Squeeze the bottle tightly so lots of air gets squeezed out. Make sure you don't let go.

When you put the bottle on the yolk, make sure it is touching the egg, like a lid. This will seal it to make sure no air gets back in.
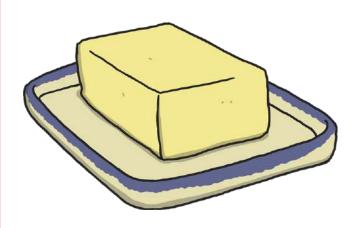
Make Your Own Butter

Science Experiment

Butter is an important part of sandwiches and tastes great on toast. Follow these instructions to make your own yummy butter.

You will need:

- cream (it needs to be thick cream so double cream or whipping cream works best)
- plastic jar with a lid
- sieve
- bowl

Method:

1. Pour the cream into the jar. The jar should be about half full.

2. Put the lid on the jar and make sure it's on tightly.

3. Now for the hard work! Shake the jar lots until you see a lump form in the jar. This could take a long time – maybe even ten minutes!

4. Eventually, you will see a lump and some liquid. The lump is butter and the liquid is buttermilk, an ingredient that can be used in lots of different things.

5. Put the sieve over a bowl. Open the jar and tip the contents into the sieve.

6. You now have separate butter and buttermilk.

The science:
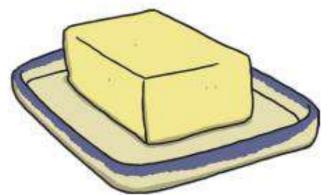
Cream is made up of tiny pieces (called molecules) of fat surrounded by water. When you shake the cream, the fat molecules start to clump together in a lump. They then separate from the liquid.
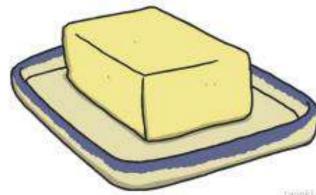
Science Experiment
Make Your Own Butter

How long did you have to shake the jar before you saw lumps starting to form?

Which is runnier, the cream or the buttermilk?

Does the cream change colour when it turns into butter and buttermilk?
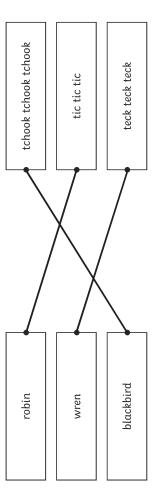
Answers

1. What is the Latin name of the wren? Tick one.

   ○ Luscinia megarhynchos
   ● **Troglodytes troglodytes**
   ○ Turdus merula
   ○ Erithacus rubecula

2. Draw three lines to match each bird to its song.

robin	tchook tchook tchook
wren	tic tic tic
blackbird	teck teck teck

robin → tic tic tic
wren → teck teck teck
blackbird → tchook tchook tchook

3. What does **trill** mean?

   A trill is a quavering note.

4. Find and copy **two** things that robins will eat.
   Accept any two of the following: insects and their larvae; spiders; worms; weeds; seeds; fruit; berries; nuts; oats; mealworms.

5. What is the problem with using nets in a garden?
   The problem with using nets in a garden is that birds can become tangled in them.

6. Why do you think wrens are so good at hiding?
   Pupils' own responses, such as: They are very small and brown in colour so they blend in to the bushes and trees that they build their nests in.

7. Summarise the information from the third paragraph in 40 words or less.
   Pupils' own responses, such as: Robins are seen in cities, towns and villages; they will nest anywhere, in their cup-shaped mossy nest, from May to July, laying 4-6 white eggs with sandy or red freckles up to three times per year.

Answers

Use your **green** and **pink** highlighters to check your answers just like you would in the classroom.

Highlighter

If an answer is not correct, look again at your question so you understand what mistake you have made.

Highlighter

Year 5 Maths: Answers

Garden Birds

8. Which of the threats do you think is the most problematic? What could you do to help the problem?

Pupils' own responses, such as: I think that weed killers are the most problematic threat because they can kill birds or their food, meaning that the birds could starve.

9. Why do you think that robins are Britain's favourite bird? Give at least two reasons.

Pupils' own responses, such as: Robins are very distinctive with their red breast and people associate them with Christmastime; they are also very friendly and will sometimes feed out of people's hands.

10. Can you think of any other threats to garden birds? What could you do to help the problem?

Pupils' own responses, such as: I think that pets are a threat to garden birds, especially cats because they often catch and kill small birds or destroy their nests. It is difficult to control cats, but people with pet cats should try to make sure that they don't attack birds by giving them plenty of toys to play with.

question	answer	marks	notes
1. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.			
a	75 ✓ ✓ × × 120 ✓ ✓ ✓ ✓ 82 × × × ×	3	1 mark per correct row
b	Number / Factors 12 / 1, 2, 3, 4, 6, 12 20 / 1, 2, 4, 5, 10, 20 36 / 1, 2, 3, 4, 6, 9, 12, 18, 36	3	1 mark for all factors given per number
c	Numbers / Factors 12 ad 18 / 1, 2, 3, 6 20 and 24 / 1, 2, 4 20 and 30 / 1, 2, 5, 10	3	1 mark for all common factors given per pair
2. Know and use the vocabulary of prime numbers, prime factors and composite (non- prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.			
a	Circles drawn around: 2; 3; 5; 7; 11; 13; 17; 19; 23; 29; 31; 37; 41; 43; 47	up to 3 marks	3 marks for all numbers identified and no errors If 13 out of 15 identified and no errors award 2 marks If 12 or more identified and 1 error award 1 mark
b	Give a correct example of a Prime number and an explanation such as ' it is a prime number because it can only be divided by one and itself' or 'it has only one and itself as factors'	1	
c	12 / 2, 2, 3 30 / 2, 3, 5	2	1 mark for each number correct, any order can be accepted
3. Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.			
	245 × 8 = **1,960** 3,353 × 6 = **20,118** 483 × 24 = **11,592** 1,832 × 45 = **82,440**	4	Do not accept the answer only, working out must show evidence of a formal written method.
4. Multiply and divide numbers mentally drawing upon known facts.			
	600 × 500 = **300,000**	1,500 ÷ 30 = **50**	6	1 mark per question correct.
	80 × 20 × 60 = **96,000**	3,000 ÷ 60 = **50**		
	1,600 × 40 = **64,000**	200,000 ÷ 400 = **500**		

Question 9 / 10 mark scheme

question	answer	marks	notes
9. Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.			
a	$70 \times$ **70** $= 4900$ (**6 × 5**) $+ 80 = 110$ or (**3×10**) or (**2×15**) **6** $÷ 100 = 0.06$	3	1 mark per correct answer
b i	£895	2	Award 1 mark for an incorrect answer but demonstration of a correct method.
b ii	£100	2	
b iii	30	1	
10. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.			
a	£10.75	2	Award 1 mark for an incorrect answer but demonstration of a correct method.
b	£1.26 — €1 **£12.6(0)** — €10 **£37.8(0)** — €30 **£63** — €50 £126 — **€100**	4	Accept £12.6 or £12.60 Accept £37.8 or £37.80
c	39.36 feet	1	Accept without feet
d	24.6 feet	1	
		Total 70	

Question 5–8 mark scheme

question	answer	marks	notes
5. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.			
a	$456 ÷ 6 =$ **76** $1,264 ÷ 8 =$ **158**	2	Do not accept the answer only, working out must show evidence of a formal short method.
b	25 jugs	2	Award 1 mark for an incorrect answer but demonstration of a correct method, including rounding up. Do not accept an answer with a remainder or decimal.
6. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.			
a	54 — 540 — 5,400 — 54,000 8.3 — 83 — 830 — 8,300	6	1 mark per correct answer
b	3,876 — 387.6 — 38.76 — 3.876 123.9 — 12.39 — 1.239 — 0.1239 1,478.3 — 147.83 — 14.783 — 1.4783	9	1 mark per correct answer
7. Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).			
a	49	1	
b	27	1	
c	3^2 — 64 5^3 — 36 6^2 — 9 4^3 — 125	4	
8. Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.			
	True True False True	4	

Year 6 Maths: Answers

Section A (Q1): Involves the teacher reading out questions for children to calculate mentally, with no written working out.

question	script	marks	answer
	1. Perform mental calculations, including with mixed operations and large numbers.		
	Read these questions to the class:		
a	Calculate the answer to 599 subtract 31	1	568
b	What is the sum of 264 and 122?	1	386
c	Double 381.	1	762
d	Calculate 51 multiplied by 8.	1	408
e	Divide 99 by 9 and then add 13 to your answer.	1	24
f	How many eights are there in 816?	1	102
g	What is 24 less than 1789?	1	1765
h	Multiply 20 by 14.	1	280
i	Multiply 6 by 8 and then subtract 11.	1	37
j	What is the remainder when you divide 418 by 10?	1	8

Section B (Q2-8): Is for children to complete independently.

question	answer	marks	notes
	2. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.		
	3 x 6381 = 19 143 74 x 925 = 68 450	4	Award two marks for each correct answer. If an answer is incorrect, award one mark for each correct use of long multiplication.
	3. Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.		
a	261 ÷ 4 = 65 r 1 992 ÷ 22 = 45 r 2	4	Award two marks for each correct answer. If an answer is incorrect, award one mark for each correct use long division.
b	256 ÷ 6 = 42 $\frac{4}{6}$ or 42 $\frac{2}{3}$	2	
c	5 times	1	
d	44 boxes of pencils	1	
e	55	1	
	4. Divide numbers up to 4 digits by a two-digit number using the formal written method of short division, where appropriate, interpreting remainders according to the context.		
a	415 ÷ 5 = 83 630 ÷ 14 = 45	4	Award two marks for each correct answer. If an answer is incorrect, award one mark for each correct use short division.
b	34 bricks	1	
	5. Identify common factors, common multiples and prime numbers.		
a	Venn diagram — factor of 18 / factor of 24. Factor of 18 only: 9. Intersection: 2, 6, 3. Factor of 24 only: 12.	1	Award one mark for all 5 numbers correctly placed.
b	1, 3, 5 and 15	1	Award one mark for all numbers identified.
c	35, (42), (21), 14, 54	1	
d	12, 24, 36	1	Award one mark for all numbers correctly identified.
e	(97), 70, 65, (47), (19), 99	1	
f	23, 29, 31, 37	1	Award one mark for all numbers correctly identified.

question	answer	marks	notes
8. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.			
a	200 kilometres 100 kilometres (300 kilometres) 400 kilometres	1	
b	5 x 500 or 500 x 5 = **250 metres**	2	Award one mark for a correct calculation of 5 x 50 in any order), and one mark for an answer of 250 metres.
c	500 x 10 or 10 x 500 = 5000 **5** cartons	2	Award 2 marks for a correct answer of 5 cartons. Award one mark for a correct calculation (in any order).
		Total 55	

question	answer	marks	notes
6. Use knowledge of the order of operations to carry out calculations involving the four operations.			
a	14 + (13 − 5) 3 30 ÷ (5 x 2) 10 (6 + 7) x 3 22 12 + 15 - 8 39 30 ÷ (6 ÷ 2) 19	5	Award one mark for each calculation and answer correctly matched.
b	5	1	
c	(32) 62 16	1	
d	29	1	
7. Solve problems involving addition, subtraction, multiplication and division.			
a		2	Award two marks for all boxes correctly completed. Award one mark for 2 or 3 boxes
b	**5** x **8** x **3** = 120	2	Award two marks for all boxes correctly filled. Numbers can be in any order.
c		2	Award two marks for all boxes correctly completed. Award one mark for 2 or 3 boxes correctly completed.
d		2	Award two marks for all boxes correctly completed.

Answers

1. In which period did this Elaphrosaur live?

   ○ Triassic

   ○ Jurrassic

   ⊘ **Cretaceous**

2. In the paragraph beginning "He went on to say…" which word is used which means very strange or unusual.

   Bizarre

3. According to the article, which dinosaurs is the Elaphrosaur related to? Tick all which apply.

   ⊘ **Tyrannosaurus rex**

   ⊘ **Velociraptor**

   ○ Stegosaurus

   ○ Pterodactyl

4. From which type of dinosaur did the researchers initially think the bone came from?

   Pterosaur

5. How do you think the researcher's felt when they discovered it was a bone from an Elaphrosaur?

   Accept an answer which references that they hadn't noticed it sooner. e.g. I think they may have felt a bit silly for thinking it was a Pterosaur bone.

6. Summarise the key information in this article using 15 words or fewer.

   Accept a reasonable answer which includes the story's key information in 15 words or fewer, e.g. Scientists have discovered a rare dinosaur in Australia.