Year 6 Remote Learning

ANSWER PACK

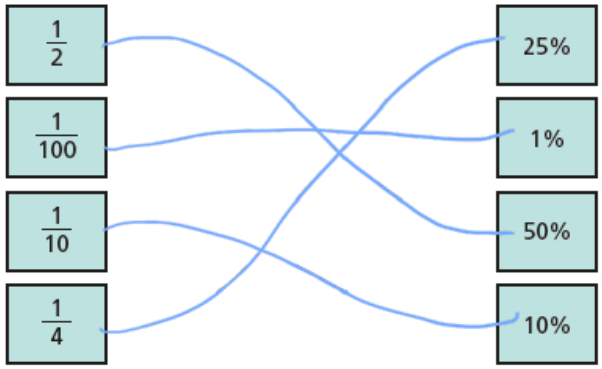
1st – 5th February 2021

Maths Answers: Lesson 1

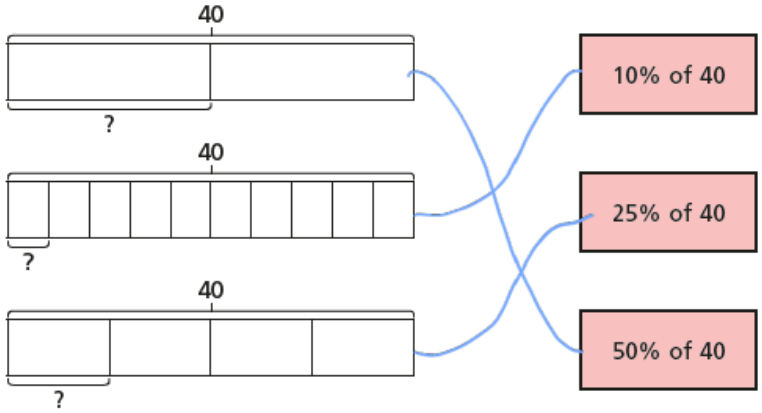
Percentage of an amount (1)

Rose Maths

1 Match the equivalent fractions to the percentages.



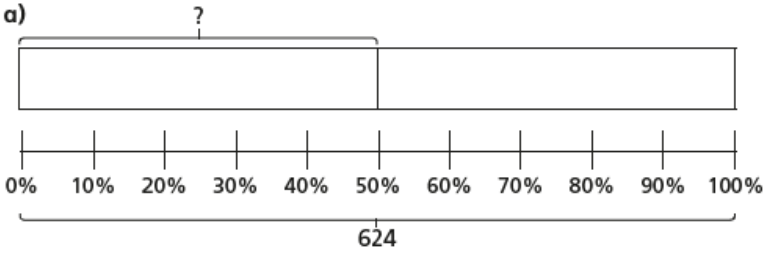
2 Match each bar model to the statement it represents.



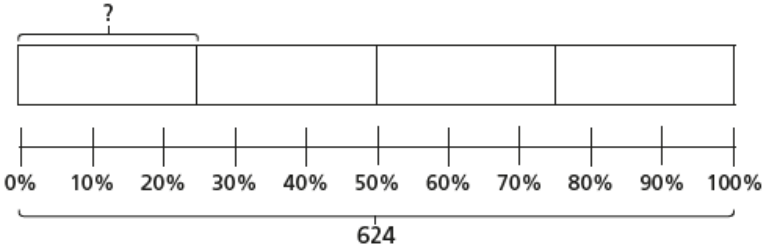
Compare answers with a partner.

3 Use the bar models to help you complete the calculations.

a)



50% of 624 = 312

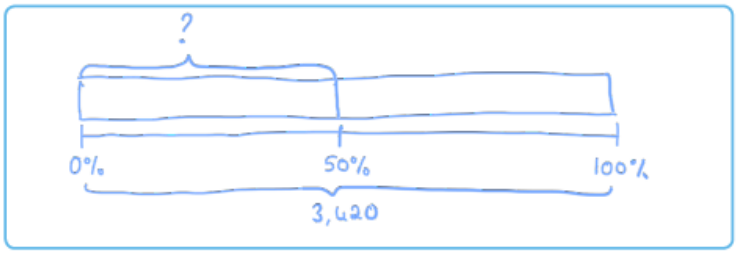


25% of 624 = 156

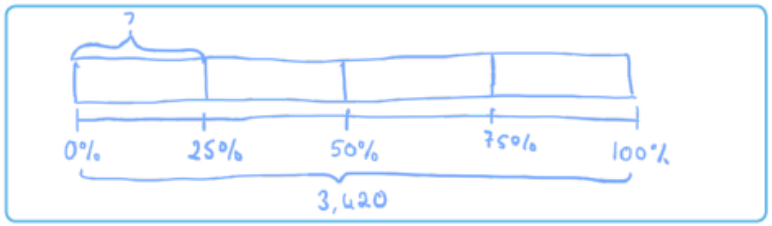
What do you notice about your answers?

b) Use bar models to complete the calculations.

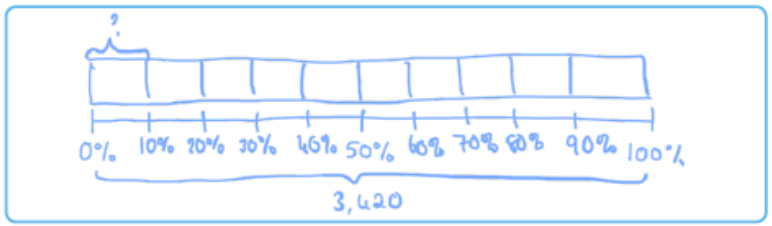
50% of 3,420 = 1,710



25% of 3,420 = 855



10% of 3,420 = 342



4 Complete the calculations.

a) 50% of 3,000 = 1,500

50% of 1,500 = 750

50% of 500 = 250

b) 25% of 3,000 = 750

25% of 1,500 = 375

25% of 500 = 125

c) 10% of 3,000 = 300

10% of 1,500 = 150

10% of 500 = 50

d) 1% of 3,000 = 30

1% of 1,500 = 15

1% of 500 = 5

What do you notice about your answers?

5 Workers in a toy factory aim to pack 2,560 boxes each day.

At 10:00 am they have completed 25% of their target.

a) How many boxes have they packed? 640

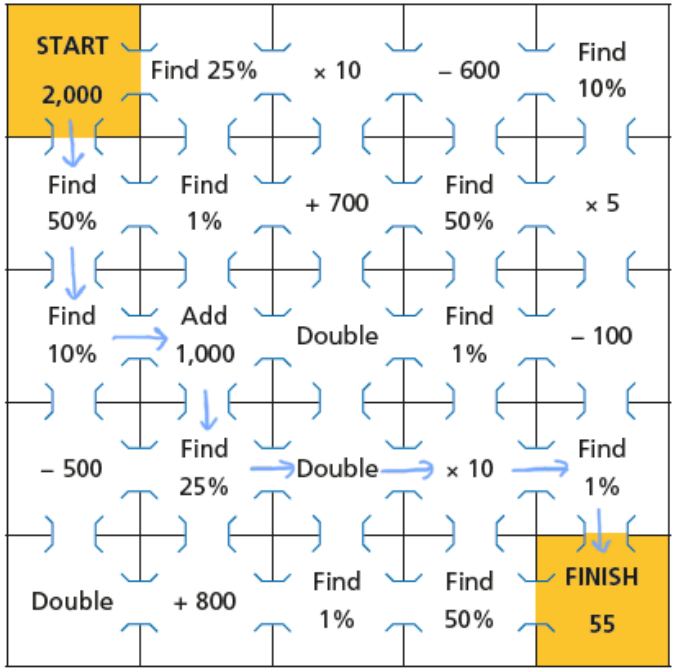
By midday they have packed 50% of their target.

At 2:00 pm they have packed another 10% of their target.

b) How many more boxes do they need to pack to meet the daily target?

They need to pack 1,024 more boxes.

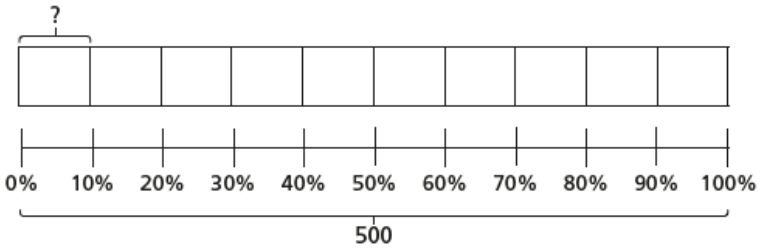
6 Follow the steps to find a way through the maze.



Maths Answers: Lesson 2

Percentage of an amount (2)

1 a) Use the bar model to find 10% of 500



10% of 500 = 50

b) Use your answer to part a) to help you complete the calculations.

20% of 500 = 100

70% of 500 = 350

90% of 500 = 450

60% of 500 = 300

30% of 500 = 150

100% of 500 = 500

2

To find 5% you can find 10% and then halve it.

Use Dora's method to complete the calculations.

a) 5% of 40 = 2

b) 5% of 400 = 20

c) 5% of 4,000 = 200

d) 5% of 2,000 = 100

e) 5% of 6,000 = 300

What do you notice about your answers?

3 Some children are asked to find 75% of 340

I will find 25% and multiply it by 3

a) Use Dexter's method to find 75% of 340

255

I will find 10% and multiply it by 7, then find 5% and add them together.

b) Use Alex's method to find 75% of 340

255

I will find 25% and 50% and add them together.

c) Use Amir's method to find 75% of 340

255

d) Are there any other methods you could use?

4 Talk to a partner about different methods for finding these percentages.

20% 90% 60% 15% 55% 40%

Use your preferred method to calculate the percentages.

a) 20% of 1,000 = 200
20% of 550 = 110
20% of 40 = 8

b) 90% of 1,000 = 900
90% of 4,230 = 3,807
90% of 90 = 81

c) 60% of 1,000 = 600
60% of 400 = 240
60% of 98 = 58·8

d) 15% of 1,000 = 150
15% of 300 = 45
15% of 30 = 4·5

e) 55% of 1,000 = 550
55% of 4,400 = 2,420
55% of 8 = 4·4

f) 40% of 1,000 = 400
40% of 400 = 160
40% of 98 = 39·2

5 Ron is calculating these percentages.

10% of 20 20% of 10

20% is double 10%, and 10 is half of 20, so I know these will both have the same answer.

How does Ron know this?

6 a) Complete the calculations.

20% of 40 = 8 25% of 60 = 15
40% of 20 = 8 60% of 25 = 15

b) What do you notice about the answers?

Each column is the same.

c) Does this always happen? Investigate with other examples.

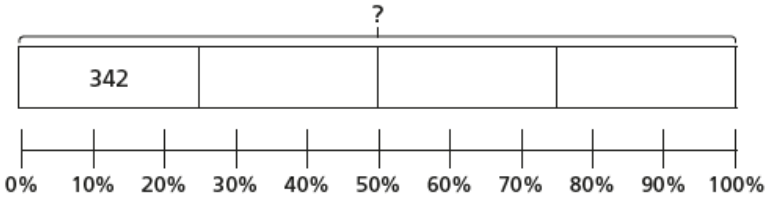
d) Talk about your findings with a partner.

Maths Answers: Lesson 3

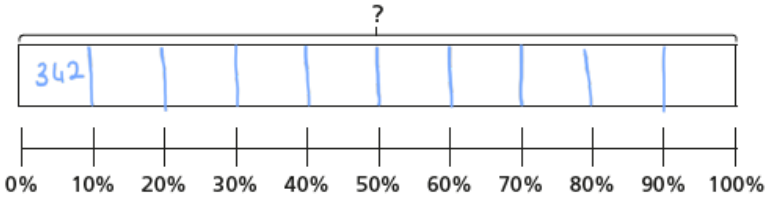
Percentages – missing values

1 Complete the bar models to find the missing numbers.

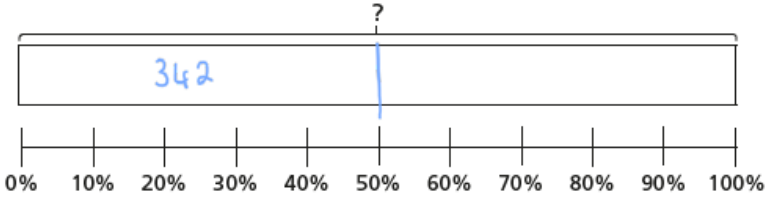
a) 25% of 1,368 = 342



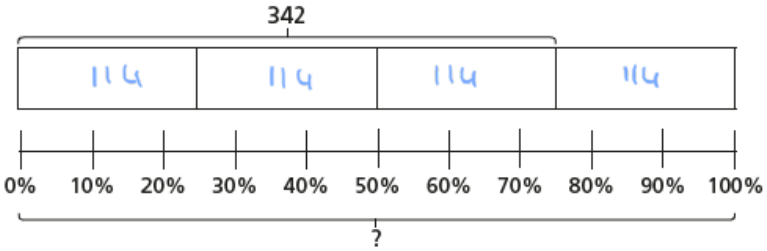
b) 10% of 3,420 = 342



c) 50% of 684 = 342



d) 75% of 456 = 342



2 40% of the children in a school are boys.

There are 188 boys in total.

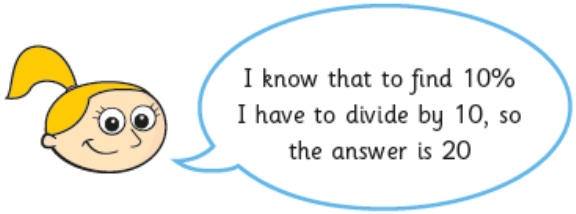
a) How many children are there altogether?

470

b) How many girls are there?

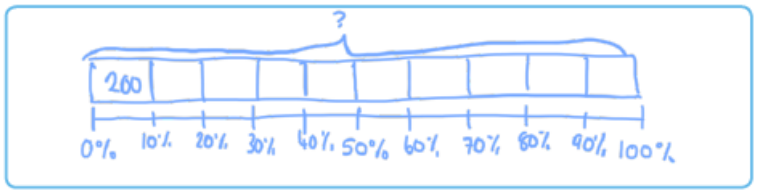
282

3 10% of ☐ = 200



a) What mistake has Eva made?

b) Draw a bar model to help Eva find the correct answer.



c) What is the correct answer? 2,000

4 Complete the calculations.

a) 20% of 150 = 30

20% of 300 = 60

b) 10% of 400 = 40

10% of 200 = 20

c) 25 % of 400 = 100

75% of 300 = 225

d) 80% of 40 = 32

25 % of 32 = 8

5 The table shows the number of people who visited a cinema over four days.

a) Fill in the missing information.

Day	Percentage of total visitors	Number of visitors
Thursday	10%	224
Friday	20%	448
Saturday	45%	1,008
Sunday	25%	560
Total	100%	2,240

b) How many more people went to the cinema on Saturday than Sunday?

448

c) 60% of the visitors were children.

How many children went to the cinema?

1,344

6 Find three different solutions to make the statement correct.

10% of ▲ = ★ % of 50

E.g.

▲	★
500	100
100	20
10	2

What do you notice about your answers?

Talk about it with a partner.

Maths Answers: Lesson 4

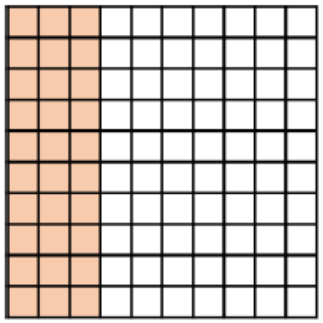
Year 6

Percentages

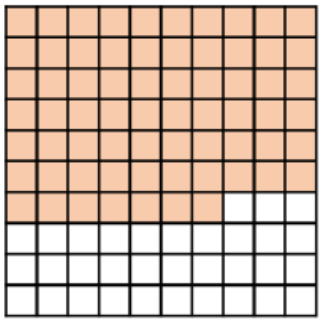
White Rose Maths

Name _____

1 Here are some hundred grids.
What percentage of each grid is shaded?



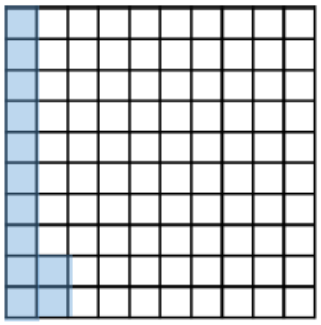
30 %



67 %

2 marks

2 Shade 12% of the hundred grid.



1 mark

3 Use the bar model to help you.

120 kg

50%		50%	
25%	25%	25%	25%

What is 50% of 120 kg?

60 kg

1 mark

What is 25% of 120 kg?

30 kg

1 mark

4 Use the bar model to help you.

70

10%	10%	10%	10%	10%	10%	10%	10%	10%	10%

What is 10% of 70?

7

What is 30% of 70?

21

What is 90% of 70?

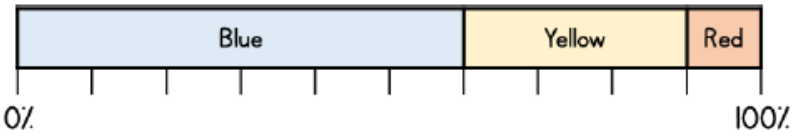
63

What is 5% of 70?

3.5

4 marks

5 The percentage bar chart shows the colour of counters in a box.



What percentage of the counters in the box are blue?

60%

What percentage of the counters in the box are yellow?

30%

What percentage of the counters in the box are red?

10%

3 marks

6 50% of a number is 32
What is the number?

64

10% of a number is 7.5
What is the number?

75

2 marks

7 Max has £800 in the bank.
He spends 3% of his money on a new computer game.
How much money does he spend on the computer game?

1 mark for calculating 1% = £8

£ 24

2 marks

8 Complete the table.

Percentage	Fraction	Decimal
50%	$\frac{1}{2}$	0.5
7%	$\frac{7}{100}$	0.07
20%	$\frac{1}{5}$	0.2
57%	$\frac{57}{100}$	0.57

1 mark for 2 correct.

2 marks

9 Leona has a large bag of apples.
There are 180 apples in the bag.
She uses $\frac{1}{4}$ of the apples to make some juice.
She uses 20% of the apples to make some pies.
How many apples are left?

1 mark for correctly finding 20% or $\frac{1}{4}$

99 apples

2 marks

Circle how confident you feel with percentages.

1 2 3 4 5

Not confident — Very confident

Maths Answers: Lesson 5

	Question	Answer	Mark	Additional Guidance
1	83 + 465	**548**	1m	
2	$\frac{7}{9} - \frac{5}{9}$	$\frac{2}{9}$	1m	Accept equivalent fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
3	2 × 55	**110**	1m	
4	387 × 0	**0**	1m	
5	88 ÷ 11	**8**	1m	
6	6 × 10 × 4	**240**	1m	
7	9,023 - 811	**8,212**	1m	
8	5^2 + 20	**45**	1m	
9	45.72 + 23.5	**69.22**	1m	
10	? - 10 = 197	**207**	1m	
11	240 ÷ 4	**60**	1m	
12	6,300 ÷ 7	**900**	1m	
13	75 ÷ 15	**5**	1m	
14	? = 7,814 - 352	**7,462**	1m	
15	4,003,600 = 4,000,000 + ? + 600	**3,000**	1m	
16	10 - 6.3	**3.7**	1m	
17	$\frac{5}{9} + \frac{7}{18}$	$\frac{17}{18}$	1m	Accept equivalent fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
18	0.4 ÷ 100	**0.004**	1m	Accept equivalent fractions.
19	$\frac{4}{5}$ of 1,000	**800**	1m	
20	381 × 27	**10,287**	2m	Working must be carried through to reach a final answer for the award of ONE mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens.
21	25% of 1,100	**275**	1m	Do not accept answers with the percentage symbol.

22	1,222 ÷ 47	**26**	2m	Working must be carried through to reach a final answer for the award of ONE mark. Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm and be a complete method. The carrying figure must be less than the divisor.
23	0.5 × 36	**18**	1m	
24	$\frac{1}{3} + \frac{1}{5}$	$\frac{8}{15}$	1m	Accept equivalent fractions or the exact decimal equivalent.
25	$1\frac{2}{3} + \frac{2}{3}$	$2\frac{1}{3}$	1m	Accept equivalent mixed numbers, fractions or the exact decimal equivalent.
26	8 - 7.209	**0.791**	1m	
27	7.2 × 50	**360**	1m	
28	$1\frac{3}{8} - \frac{1}{2}$	$\frac{7}{8}$	1m	Accept equivalent fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
29	7,328 × 76	**556,928**	2m	Working must be carried through to reach a final answer for the award of ONE mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens.
30	90% of 300	**270**	1m	Do not accept answers with the percentage symbol.
31	$\frac{1}{3} \div 2$	$\frac{1}{6}$	1m	Accept equivalent fractions or the exact decimal equivalent.
32	$27 \div 3 + 4^2$	**25**	1m	
33	$1\frac{1}{2} \times 30$	**45**	1m	Do not accept unsimplified equivalent fractions.
34	23% of 510	**117.3**	1m	Do not accept answers with the percentage symbol.
35	$5\frac{1}{6} - 3\frac{3}{4}$	$1\frac{5}{12}$	1m	Accept equivalent mixed numbers, fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
36	6,536 ÷ 86	**76**	2m	Working must be carried through to reach a final answer for the award of ONE mark. Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm and be a complete method. The carrying figure must be less than the divisor.

English Answers: Lesson 1

1. Sense of panic / a sense of being there / fear.

2. He wanted it to sound unpleasant so readers would know how horrible war is / to emphasise the point about DEDEPPM being a lie. **ALso accept** - wanted the reader to be able to picture it clearly.

3. Gas is filling their lungs like water.

4. There is confusion in the moment so no one knows who is actually yelling. **Also accept** – in war / this battle it wasn't worth / there was no chance to know people's names.

5. The glass on the masks / goggles.

6. Multiple - This is something he continues to live every day / the line between dream and reality is blurred/gone / he is comparing it to a nightmare / something unreal.

7. Multiple – in that moment it is like excitement until the realisation someone is dying is found / the instant reaction is equivalent to excitement / the fumbling is fast and reactive.

Deepen the moment

8. Multiple – All war = the criticisms of war/misery described occur before the gas attack in the poem / men are trudging and miserable in all aspects of the poem, the DEDEPOPM isn't specific to gas etc. Chemical = This is the point where the descriptions/horror/death is ramped up and emphasised / the death here is much more graphically described and close in comparison with the distant flares etc. at the beginning etc.

9. Multiple - Emphasise this point / leave this in the reader's mind / like a conclusion / has to say this once all the death/misery has been told.

English Answers: Lesson 2

1. Insert suitable parenthesis to add extra information to the sentence below. Dusting himself off, the spy (_____) picked up his broken camera and stalked off down the street to where his brand new car was waiting. Various answers, for example: Dusting himself off, the spy (who had just fallen and hit his head) picked up his broken camera and stalked off down the street to where his brand-new car was waiting.	2. Insert suitable parenthesis to add extra information to the sentence below. After arriving at the shopping mall, the family (_____)proceeded to spend what seemed like an eternity looking for new uniforms, shoes and bags. Various answers, for example: After arriving at the shopping mall, the family (a tired and miserable looking bunch) proceeded to spend what seemed like an eternity looking for new uniforms, shoes and bags.
3. Using brackets, commas or dashes, combine the sentences below so that they include parenthesis. You may need to omit or change words. Without a sound, the mysterious figure stepped out of the shadows. The figure was dressed in dark robes and wore a featureless mask. Various answers, for example: Without a sound, the mysterious figure, dressed in dark robes and wearing a featureless mask, stepped out of the shadows.	4. Using brackets, commas or dashes, combine the sentences below so that they include parenthesis. You may need to omit or change words. Mark's state-of-the-art hoverboard drew looks of admiration from the gathering crowd. I thought it was a little overrated. Various answers, for example: Mark's state-of-the-art hoverboard –a little overrated in my opinion –drew looks of admiration from the gathering crowd.
5. Has parenthesis been used correctly in the sentence below? Explain why. Twirling around the floor like they were floating on air, the couple, who had been dance partners for years, successfully danced their way into the final. Yes, because if the parenthesis was removed from the sentence, it would still make sense.	6. Has parenthesis been used correctly in the sentence below? Explain why. The dog pack 12 muscular huskies –covered in thick layers –of grey and white fur pulled the sled skilfully over the frozen wastelands. No, because the if the information inside the commas was removed from the sentence, it would no longer make sense. The sentence should be: The dog pack –12 muscular huskies covered in thick layers of grey and white fur – pulled the sled skillfully over the frozen wastelands.

7. True or false? The parenthesis in the sentence below is punctuated correctly. Queen Victoria's reign lasting an impressive sixty-three years, seven months and two days (has since been surpassed by Elizabeth II). False, it should be: Queen Victoria's reign (lasting an impressive sixty-three years, seven months and two days) has since been surpassed by Elizabeth II.	8. True or false? The parenthesis in the sentence below is punctuated correctly. Mount Everest (standing at 8,848m) is still growing due to pressure from the Indian plate pushing into Asia. True
9. Insert commas around the parenthesis in the sentence below. Despite his attempts to evade capture, the burglar was apprehended in a jewellery shop which is owned by Tammi Wilson in the early hours of Friday. Despite his attempts to evade capture, the burglar was apprehended in a jewellery shop, which is owned by Tammi Wilson, in the early hours of Friday.	10. Insert commas around the parenthesis in the sentence below. During the midnight feast which consisted of popcorn, fizzy drinks and chocolate the children attempted to scare each other with their favourite horror story. During the midnight feast, which consisted of popcorn, fizzy drinks and chocolate, the children attempted to scare each other with their favourite horror story.
11. Rewrite the sentence below using brackets to punctuate the parenthesis. Earth, Neptune named after the Roman god of the sea and Mars are just a few of the planets in our solar system. Earth, Neptune (named after the Roman god of the sea) and Mars are just a few of the planets in our solar system.	12. Rewrite the sentence below using dashes to punctuate the parenthesis. Meeting in Sunil's garden which is massive by the way means that we have more room to play football, rugby and rounders. Meeting in Sunil's garden –which is massive by the way –means that we have more room to play football, rugby and rounders.

English Answers: Lesson 3

Dear/Hello Sir or Madam,

I am writing to *let you know/inform you* that a pizza I *was unlucky enough/had the misfortune* to order at your restaurant was *despicable/rubbish*.

The cheese was *flavourless/gross*, the tomatoes *gone off/rotten*, and the base *chewy as rubber/impossibly tough*.

Never will I eat at your *establishment/joint* again. Not only was the food *pants/terrible*, but the waiting staff were *snooty/aloof*, and I had to wait two hours for my *grub/dinner*!

I *demand/want* a refund, to be paid *now/immediately*.

Yours faithfully/Cheers,

Name:_____

Reading for Productivity Answers: History Lesson 1

Retrieval

1. When was Hitler the leader of Germany?
   1933 to 1945

2. How did Hitler start World War II?
   He invaded Poland.
3. Where was Hitler born?
   A city named Braunau.

Inference

4. Why do you think German's supported Hitler?
   Many people were poor and thought Hitler would save them from the economic depression as he promised he would.
5. Why do you think Hitler didn't have a happy childhood?
   His parents died young and also his siblings so he will have been left with hardly any family.

Vocabulary

6. Find and copy a word in the 'Rise in Power' section that is closest in meaning to **talented**
   Gifted
7. Define the word **'exterminate'**
   Completely get rid of.
8. What does **'rise to power'** mean?
   Gaining access to new power or control, e.g. by becoming the leader of the Nazi party.
9. *Hitler formed an **alliance** with Axis Powers of Japan and Italy.* Define the word **alliance.**
   Partnership / a union or association formed for mutual benefit, especially between countries or organisations.

Reading for Productivity Answers: RE Lesson 2

1) Who is Jesus telling the story to? Peter, his disciple.

2) How many times does Jesus say Peter should forgive his friend or brother? Seventy times seven times.

3) Which of these words is closest in meaning to **disciple**?

Enemy King Follower Friend

4) Look at the paragraph beginning 'Jesus asked him to listen'. What does Jesus compare to the kingdom of heaven? A king who wants all his servants to pay their debts.

5) Why do you think the king changed his mind about forcing the servant to pay him back immediately? Range of answers accepted. E.g. because the servant begged him on his knees, because the king felt sorry for him as he would be left with nothing.

6) Answer these true or false questions.

a) After leaving the king, the servant returned to his quarters. T
b) The king never found out how his servant had behaved. F
c) The king spoke to the second servant in jail. F
d) Both servants ended up in jail. T

7) Who do you think the king represents in the parable and why? The king represents God, because God has the power to forgive us for all of our sins.

8) What do you think Peter learned from Jesus' story? Range of answers accepted. E.g. He learned to be patient with others, to forgive so that he might be forgiven, to forgive countless times.

<u>Deepen the moment</u>

Jesus does not want us to literally forgive anyone so many times (as he says) – what do you think he means? Jesus gives so big a number to remind us that we should <u>always</u> forgive others – we should not be keeping count or cutting off the number of times we forgive at any point.

Reading for Productivity Answers: Music Lesson 3

1. What is the name of Holst's most famous composition?
   The planets
2. What happened in 1913, in Holst's honour?
   St Paul's Girls' School, Hammersmith opened a new music wing in his honour.
3. Why did Holst working as a teacher help him with his music?
   He was able to work in a sound-proof room without being disturbed.
4. Based upon what you have read, how would you describe Holst's personality?
   Shy - he was never happy in the limelight.
   Friendly – he made friends easily at college.
   Impulsive – instantly fell in love.
   Committed – music / friends for life with Williams / trying to win-over his wife.
5. *'he was never happy in the limelight...'* What does this phrase mean and do you think he enjoyed being *'in the limelight'?* Give reasons to support your answer.
   It means being famous and no, he was never happy in the limelight.
6. Would you say that Gustav Holst was a successful composer? Give reasons based on what you have read.

Various, e.g.

Yes:
He is known today.
He has famous compositions.
He has a section of a school named after him.
He was 'launched into stardom'.
He produced operas, orchestral pieces and choral music.
He is buried in a cathedral.

No?:
He avoided fame / his fame was short-lived.
He taught alongside, perhaps suggesting limited success.

Reading for Productivity Answers: Science Lesson 4

Newton and Gravity **Answers**

1. When was Isaac Newton born?
   Isaac Newton was born in 1643.
2. Why do you think the outbreak of plague forced Newton to move from Cambridge back to Woolsthorpe Manor?
   He was forced to move away from the city when Plague broke out because he would be less likely to catch the infectious disease in the country.
3. What inspired Newton to explore the force of gravity?
   The sight of an apple falling from a tree inspired Newton to explore the force of gravity.
4. How did Newton describe the way gravity pulls objects?
   He described gravity as being like a 'drawing power' from the centre of the Earth.
5. What did Newton discover about the way gravity affects the Moon?
   He discovered that the Earth exerts its gravitational force on the moon and this causes it to stay in orbit.
6. Why do you think forces are measured in newtons with a newton metre?
   Newtons and the newton meter are named after Isaac Newton because of the discoveries he made to do with forces.
7. Look at this phrase: *Even Albert Einstein, writing in 1927, 200 years after Newton's death, described Newton as a 'shining spirit'.* What does the word 'Even' make you think about Albert Einstein?
   It makes me think that Albert Einstein must have had an impressive mind himself too.
8. Why do you think the National Trust have kept and looked after the apple tree in the gardens of Woolsthorpe Manor?
   Example answer: I think the tree and gardens have been preserved because the discoveries that Newton made were significant and so the place where the ideas were first formed should be kept safe for people to see when they learn about Isaac Newton.

Reading for Productivity Answers: Art Lesson 5

1. Not alive.
2. The practice of still life develops and strengthens your natural level of drawing ability. It improves your observation and rendering of shape, tone, colour, pattern and texture in a range of different media. You also learn a lot about composition - the interaction of positive shapes (the objects) and negative space (the area around the objects).
3. Still Life has existed in one form or another since the time of the Ancient Romans and Greeks.
4. Before the 17th century still life was usually limited to the background detail of religious art, usually with some symbolic significance.
5. It tells us about a competition that took place about 400BC between two Greek painters Zeuxis and Parrhasius. Zeuxis created a painting of grapes which were so convincing that birds flew down and tried to peck at them. In art, this kind of realistic painting is called a 'trompe l'oeil' (a French artistic term which means 'trick of the eye'). Envious of his fellow artist's display of skill, Parrhasius painted a 'trompe l'oeil' image of a curtain which appeared to conceal a painting of the Trojan War beneath it. On seeing his friend's work, Zeuxis asked Parrhasius to pull back the curtain to reveal the rest of the painting. At that moment, Parrhasius claimed victory. Although Zeuxis had fooled the birds, Parrhasius had succeeded in fooling a fellow artist, an altogether more difficult task.
   Accept various possible answers referring to the above.
6. Various possible answers individual to each pupil. Could link to the moral.