



### **Year 6: Remote Learning Schedule**

| W/C 25 <sup>th</sup> January         | Monday                            | Tuesday                                     | Wednesday                                                    | Thursday                                        | Friday                                                             |
|--------------------------------------|-----------------------------------|---------------------------------------------|--------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------|
|                                      | Lesson 1:                         | Lesson 2:                                   | Lesson 3:                                                    | Lesson 4:                                       | Lesson 5:                                                          |
| Maths (approx. 45 mins per lesson)   | To understand percentages (RECAP) | To converting from fractions to percentages | To find equivalent<br>fractions, decimals and<br>percentages | To order fractions,<br>decimals and percentages | Arithmetic Skills Challenge yourself with our weekly number skills |
| This week our focus is:  Percentages | Click on the link <u>here</u> .   | Click on the link <u>here</u> .             | Click on the link <u>here</u> .                              | Click on the link <u>here</u> .                 | check.                                                             |



### Remember to log in to TT Rockstars each week to practise your times tables!

Message your teacher on ClassDojo if you've forgotten your login details.





#### Remember to share your learning on ClassDojo!

Take a photo of your work and upload it to your Dojo Portfolio or Messaging section for your teacher to see.



### English

(approx. 45 mins per lesson)

This week our focus is:

**Informal letter** 

|       |            |    |              |   | _ |   |
|-------|------------|----|--------------|---|---|---|
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Reading Comprehension
The Great Escape

#### Lesson 2:

Reading Comprehension Scarecrows

#### Lesson 3:

You will find links to videos produced by White Rose Maths above. The questions and resources can be found below; if you didn't get a particular question correct (and you're not quite sure why) then drop your teacher a message on ClassDojo!

Descriptive writing

#### Lesson 4:

Identify features of a letter

### Lesson 5:

Compare and evaluate examples of informal letters

The questions and resources can be found below; if you didn't get a particular question correct (and you're not quite sure why) then drop your teacher a message on ClassDojo!

This week's spellings are: special, social, official, commercial, artificial, financial (Remember to test yourself on Friday!)

**Reading for Pleasure** is such an important part of our curriculum – follow the link <u>here</u> to watch videos of celebrities discussing their favourite books, understanding the role of an author and a fun quiz to take part in.

**Reading for Productivity** is a fantastic way for us to expand our knowledge and understanding of our wider curriculum lessons. Read the texts and answer the attached questions.

| 7 | Mon:      | Tues: | Wed:    | Thurs:  | Fri:      |
|---|-----------|-------|---------|---------|-----------|
| 9 | Geography | DT    | Spanish | Science | Computing |

**Extended Curricular Learning** provides a great opportunity to exercise skills in foundation subjects and science. At the end of this pack, you will find 5 activities that link to our topic: one for each day. Please continue to upload your work to ClassDojo for your teacher to see!





### rcontagos



#### Fat Questions:

How do percentages exist and impact our daily lives?

Would Maths still be the same if percentages no longer existed?

Do you think World War II leaders would have had a good understanding of percentages (including fraction and decimal equivalence), which would support their governmental decisions and processes?

#### Key vocabulary

percentages
per cent = out of 100
equivalent fraction
equivalent decimal
compare
order
convert
the whole
decimal
decimal
tenths
hundredths
thousandths

Τσ see the full list of vocabulary, please refer to our resource walls.

#### Intent

We aim to develop and progress our skills in percentages and their links to decimals and fractions in order to equip us with the ability to solve real world problems that require a mathematical solution with multisteps. With these skills, we can help to develop and improve the world around us, in which we live.

### **Y6 Knowledge Organiser ~** Percentages

#### VIPs:

A decimal is a number expressed in the scale of tens. Commonly speaking we talk about decimals when numbers include a decimal point to represent a whole number plus a fraction of a whole number (tenths, hundredths, etc.).

Per cent = out of 100

Equivalent means the same value or amount.

Inverse: to perform the opposite operation - an operation that reverses the effect of another operation.

#### Finding a percentage of an amount:

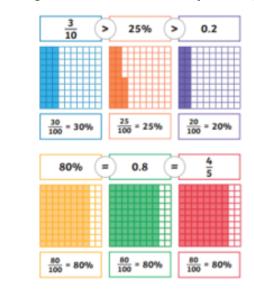
$$50\% = \frac{1}{2}$$
 so we can divide by 2

$$10\% = \frac{1}{10} \text{ so we can divide by } 10$$

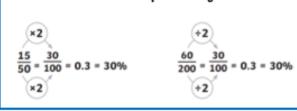
25% = 
$$\frac{1}{4}$$
 so we can divide by 4

1% = 
$$\frac{1}{100}$$
 so we can divide by 100

### Order fractions, decimals and percentages:



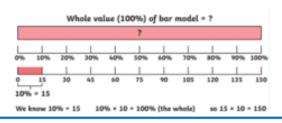
#### Fractions to percentages:



### Equivalent fraction, decimal and percentages:

| Percent | Decimal | Fraction |
|---------|---------|----------|
| 1%      | 0.01    | 1/100    |
| 5%      | 0.05    | 1/20     |
| 10%     | 0.1     | 1/10     |
| 121/2%  | 0.125   | 1/8      |
| 20%     | 0.2     | 1/5      |
| 25%     | 0.25    | 1/4      |
| 331/3%  | 0.333   | 1/3      |
| 50%     | 0.5     | 1/2      |
| 75%     | 0.75    | 3/4      |

#### Percentages - Missing Values:





### **Maths lesson 1: RECAP**



### **Understand percentages**



Complete the sentence for each diagram.

| a) |  | E | E |   |   | E | E |   | There are parts out of a |
|----|--|---|---|---|---|---|---|---|--------------------------|
|    |  |   |   |   |   | E | E |   | hundred shaded.          |
|    |  |   |   |   | H | H | H |   |                          |
|    |  |   |   | H |   |   | H | Н | This is %.               |

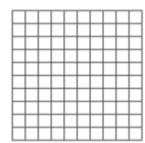
| b) | There are parts out of |
|----|------------------------|
|    | hundred shaded.        |
|    | This is 0/             |
|    | This is%.              |

| c) | There are parts out of a hundred shaded. |
|----|------------------------------------------|
|    | This is %.                               |

Complete the table.

| Hundred square | Percentage |
|----------------|------------|
|                |            |
|                |            |
|                | 82%        |

Shade 15% of the hundred square red.
Shade 32% of the hundred square blue.



What percentage of the hundred square is **not** shaded?





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| 4 | a) Is 1% of this bar model shaded?  1%  Explain your reasoning.  b) What percentage of each bar model is shaded?                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Dexter has £1 to spend.  He buys some stickers.  I got 35p change.  What percentage of his money did Dexter spend?                                                                                                                                                                                                                                |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul> <li>7 Aisha and Brett have been selling tickets for the school play.</li> <li>There are 100 seats available.</li> <li>On Monday they sold 34% of the tickets.</li> <li>On Tuesday they sold 42 tickets.</li> <li>By the end of Wednesday, 95% of the tickets had been sold.</li> <li>How many tickets did they sell on Wednesday?</li> </ul> |
| 5 | Passengers are boarding a plane.  The plane has 100 seats.  a) 10% of the seats are already full.  How many passengers are already on the plane?  b) 15% of the seats have not been booked.  How many seats have been booked? | <b>\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}}\\ \tittt{\text{\text{\text{\text{\texi}\text{\text{\text{\text{\text{\texi}\text{\text{\texi}\text{\texi}\text{\texi}\text{\text{\texi}\text{\texi}\tittt{\texitt{\text{\texi}\text{\texit{\texi{\texi{\texi}</b> | On Wednesday they sold tickets.  8 Shade 85% of this bar model.  Compare answers with a partner.                                                                                                                                                                                                                                                  |
|   | c) How many passengers still need to board the plane?                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | © White Rate Maths 2019                                                                                                                                                                                                                                                                                                                           |





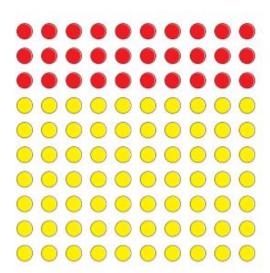
### Maths lesson 2:



#### Fractions to percentages



1

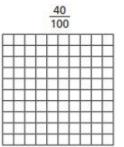


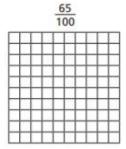
- a) What fraction of the array of counters is red?
- b) What fraction of the array of counters is yellow?
- c) What percentage of the array of counters is red?
- d) What percentage of the array of counters is yellow?
- e) What do you notice about the two percentages?

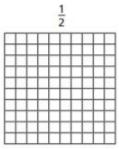


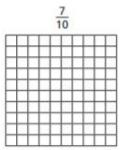
2

a) Shade the hundred squares to represent the fractions.









b) Write the fractions as percentages.

c) Compare your shaded grids with a partner's. What is the same and what is different?





- 3 Fill in the missing numbers.
  - a)  $\frac{9}{10} = \frac{100}{100} = \frac{9}{100}$
- c)  $\frac{9}{50} = \frac{100}{100} = \frac{9}{100}$
- **b)**  $\frac{9}{20} = \frac{}{100} = \frac{}{}$
- d)  $\frac{9}{25} = \frac{100}{100} = \frac{9}{100}$
- $\frac{1}{10}$  is 10%, so  $\frac{1}{20}$  must be 20%.

Explain the mistake that Ron has made.

What is the correct answer?

- Convert the fractions to percentages.
  - a)  $\frac{1}{4} =$

b)  $\frac{1}{5}$  =

 $\frac{1}{2}$  =

2 5 =

3 =

 $\frac{4}{5}$  =

c)  $\frac{16}{20} =$ 

d)  $\frac{45}{50} =$ 

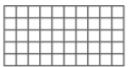


$$\frac{4}{20} =$$

- e) What do you notice?
- a) Shade the grid in the given proportions.
  - $\frac{3}{5}$  green
- 14% red







b) What percentage of the grid is yellow?



7 a) Use each digit card once to make the statements correct.













b) Are there any other solutions?



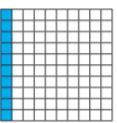
### Maths lesson 3:

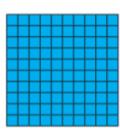


### **Equivalent FDP**



What fraction, decimal and percentage of each grid is shaded blue?

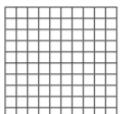




Match the equivalent fractions, decimals and percentages.

| 15  |  |
|-----|--|
| 100 |  |

a) Shade the grid in the given proportions.



- $\frac{3}{10}$  green
- 0.03 red
- 13% blue
- 0.3 yellow

b) What proportion of the grid is unshaded?
 Write your answer as a fraction, decimal and percentage.





Complete the table.

| Fraction | Decimal | Percentage |
|----------|---------|------------|
|          | 0.21    |            |
|          |         | 12%        |
| 2 10     |         |            |
|          | 0.4     |            |
|          | 0.44    |            |
|          |         | 4%         |
| 3<br>4   |         |            |
|          | 0.99    |            |

Amir was asked to complete the statement using <, > or =.

14% > 0.4



What mistake has Amir made?

6 Match the decimal cards to the people.



0.65



My decimal cannot be simplified when it is written as a fraction.

0.57



My decimal is 10% less than  $\frac{3}{4}$ 

0.61



My decimal is greater than 60%.

0.6

7) Use the digit cards to write a decimal greater than  $\frac{1}{5}$  but less than 40%.

You may not use a card more than once in each number.

0

1

2

3

4

5



How many other answers can you find?



### Maths lesson 4:



#### **Order FDP**

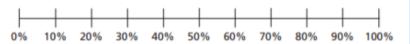


- Write <, > or = to complete the statements.
  - a) 64% ( ) 0.4
- d) 0.8 ( ) 80%
- **b)** 0.96  $\left(\right) \frac{97}{100}$
- e) 67%  $\left( \right) \frac{7}{10}$
- c)  $\frac{3}{5}$  35%
- f)  $\frac{7}{20}$  0.3
- Draw arrows to estimate the positions of the fractions, decimals and percentages on the number line.



$$\frac{9}{10}$$
 0.9

19%



**b)**  $\frac{2}{5}$  0.52 45





3 Write the fractions, decimals and percentages in ascending order.

a) 
$$\frac{7}{10}$$

0.9

61%

0.66

0.89

12%

d) Which part was easiest to order: a), b) or c)?

Why?

e) Which set was most difficult to order: a), b) or c)? \_\_\_\_\_

Why?

f) Compare answers with a partner.

What is the same and what is different?





These fractions, decimals and percentages are in descending order.

99%

89 100

0.7

0.5

49%

Tick the fractions, decimals and percentages that could fill the gap.

0.78

51%

3 5

0.6

4/10

Tommy scored  $\frac{40}{50}$  on a Maths test.

Aisha got 78% of the test correct.

Aisha thinks she has done better because 78 is greater than 40

Do you agree with Aisha? \_\_\_\_\_

Explain your answer.

6 Huan, Nijah and Scott each started with a 1-litre bottle of juice.

Huan drank 0.55 litres.

Nijah drank 59% of her juice.

Scott has  $\frac{4}{10}$  of his juice left.







Who drank the most? Show your working.

drank the most.

Who drank the least? Show your working.

drank the least.

7 a) Use the digit cards to make the statement correct.



How many different solutions can you find?

b) Use the digit cards to write a percentage greater than  $\frac{2}{5}$  but less than 75%.

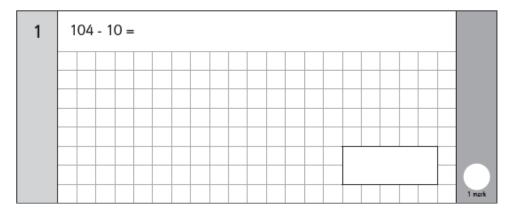
How many different percentages can you find?

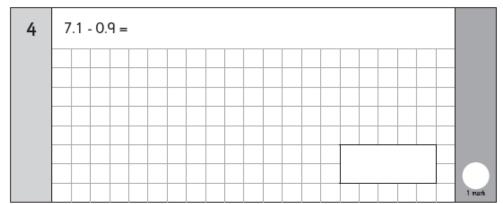
Compare answers with a partner.

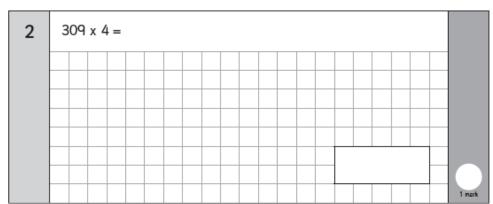


#### PONTEFRACT ACADEMIES TRUST

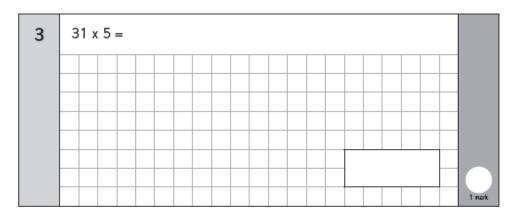
### Maths lesson 5:

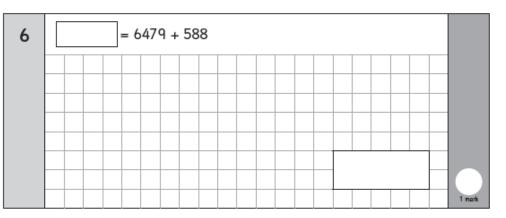






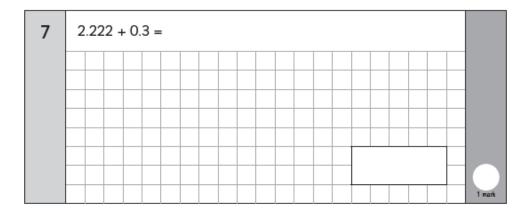


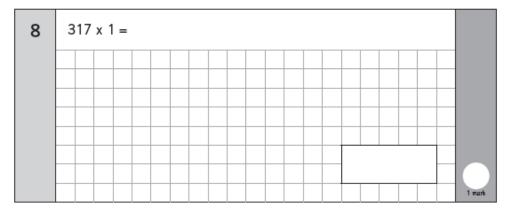


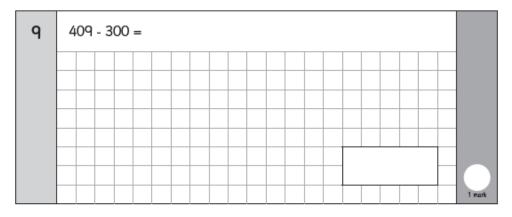






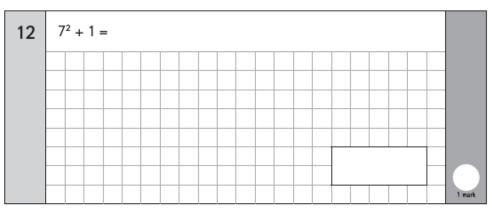




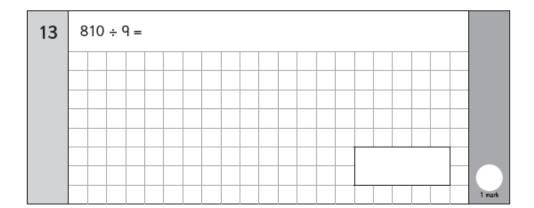




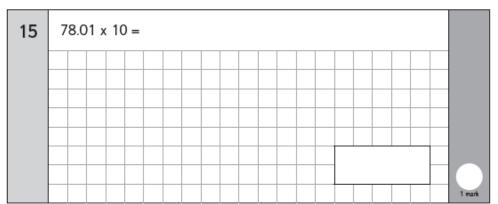




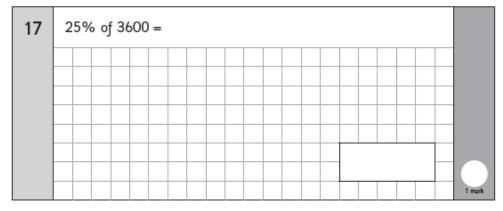


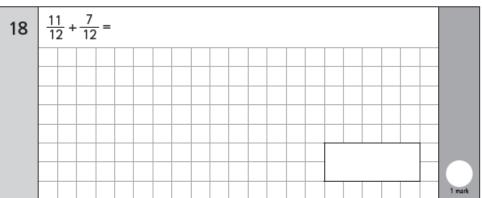








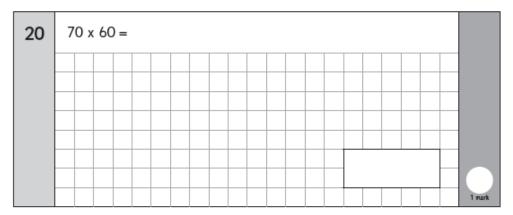


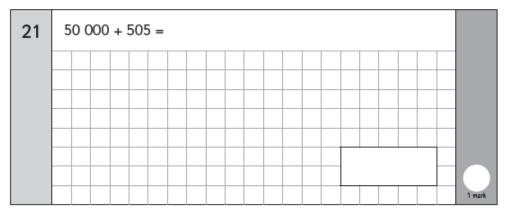


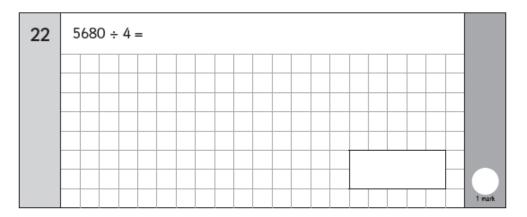








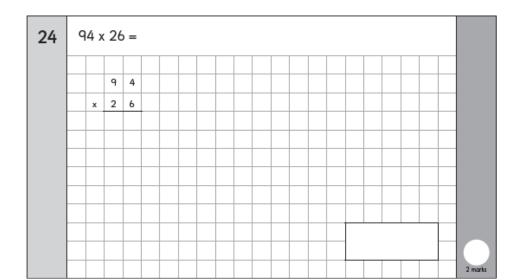


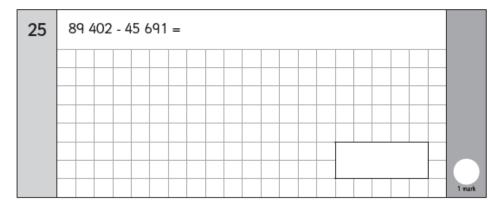


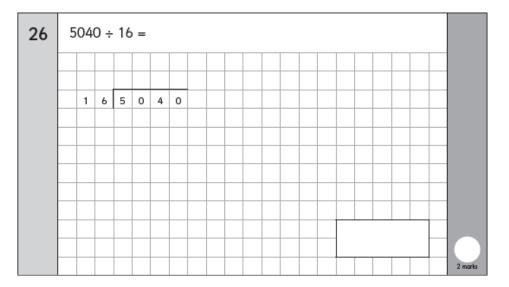


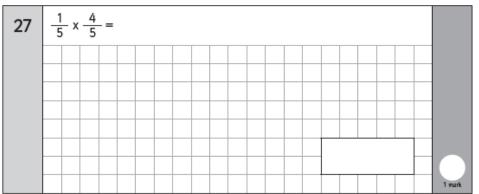




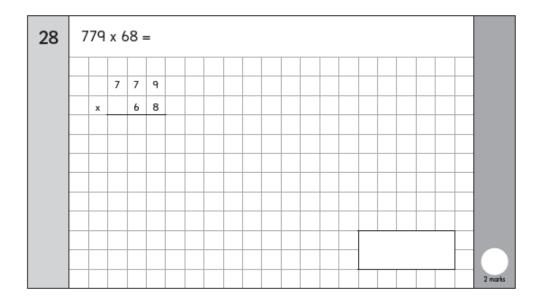


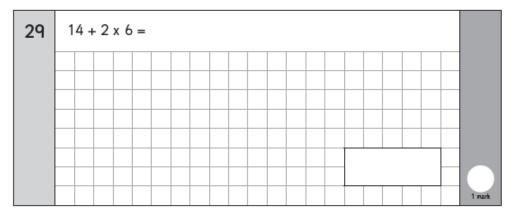


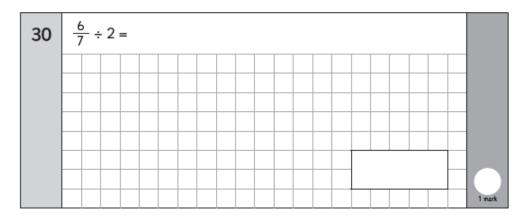


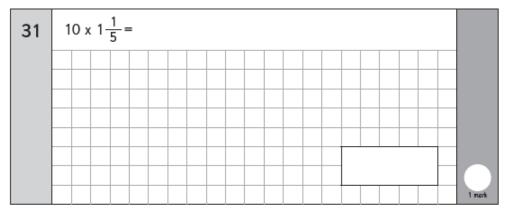


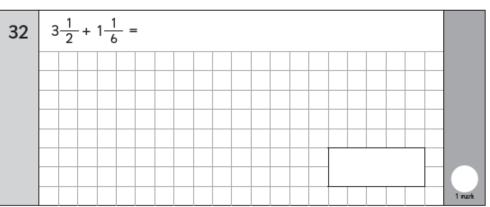




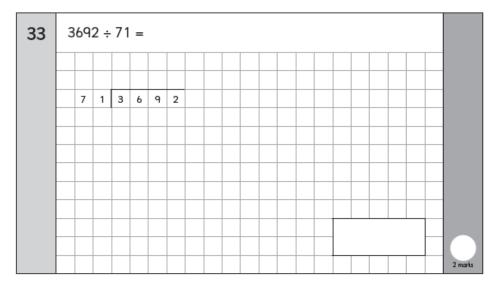




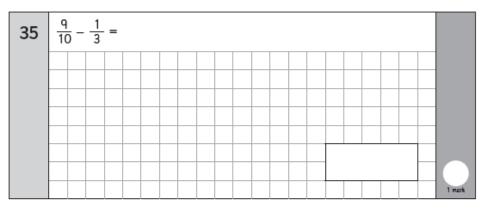














You have 30 minutes to complete your arithmetic test; set a timer so you know how much time is remaining. Remember to highlight your symbols and to **show your working out**. When you have finished, use the answer sheet to mark your test and record your score out of 40. If you have any corrections, do these again in a different colour beside your previous answer.



### **English – Practise your spellings**



### Remember to ... Look, cover, say, write and then check!

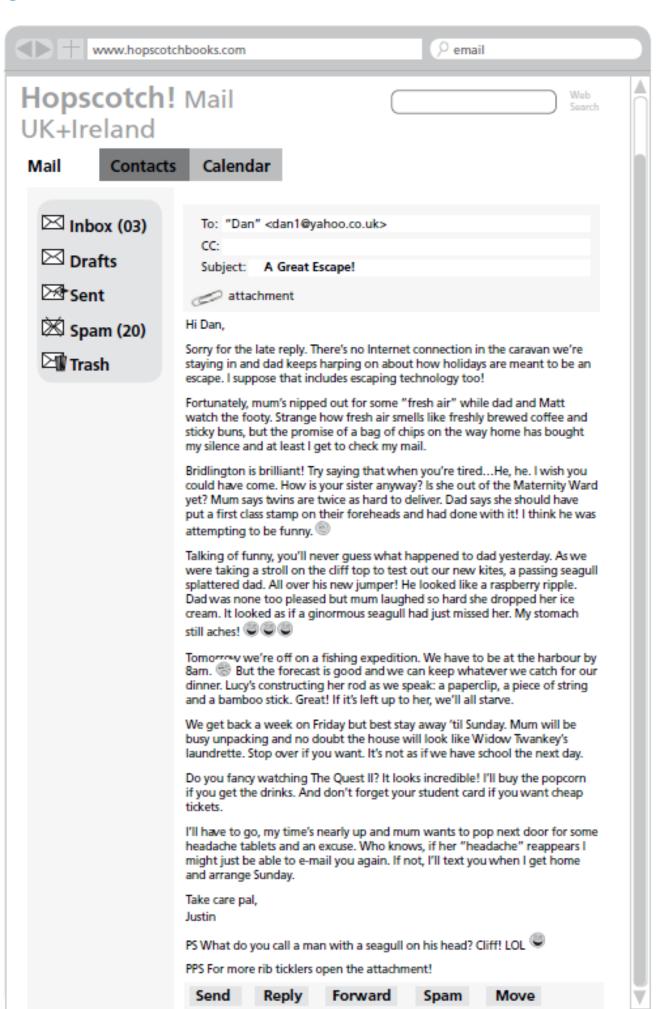
| special    |  |  |
|------------|--|--|
| social     |  |  |
| official   |  |  |
| commercial |  |  |
| artificial |  |  |
| financial  |  |  |

| Use the first column example words to go over the letters and practise your handwriting joins.  Can you write sentences for each of your spellings? |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|                                                                                                                                                     |  |  |  |  |
|                                                                                                                                                     |  |  |  |  |
|                                                                                                                                                     |  |  |  |  |
|                                                                                                                                                     |  |  |  |  |
|                                                                                                                                                     |  |  |  |  |
|                                                                                                                                                     |  |  |  |  |
|                                                                                                                                                     |  |  |  |  |











### **Questions**



- 1. Where do you think Justin is when he is writing his email?
- 2. What is your evidence for this?
- 3. Why do you think Dan couldn't go on holiday with Justin?
- 4. What colour jumper was Dad wearing when he got splattered?
- 5. What flavour ice cream was Mum most likely eating when this took place? Why?
- 6. Which did Justin find funnier?
  - a. What happened to his dad
  - b. The seagull joke
- 7. How old do you think Lucy is?
- 8. Where does Justin fancy watching The Quest II when he gets home? How do you know?
- 9. Does Justin think his mum really has a headache? Why?

### **Deepening the Moment:**

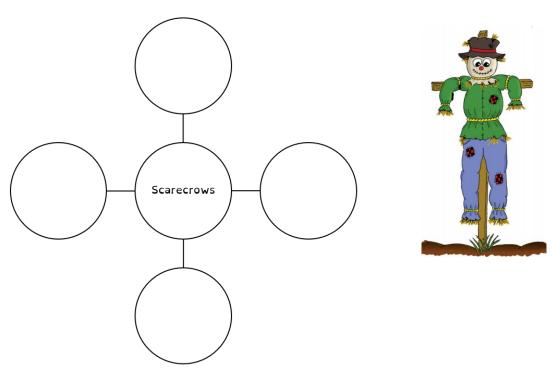
- a. Explain why you agree or disagree with Justin's dad; that holidays should be a technology-free zone?
- b. Explain why you think Justin's parents bought their children kites and organised a fishing trip.







Before you read today's reading comprehension, create a mind map of words, ideas and themes linked to 'scarecrows'.



Task 1: No read 'Scarecrows'

While you are reading, you may wish to:

- Underline and identify any new, unknown words
- Underline any main events or character names

### Complete this table to show your understanding of these words:

| Word      | Have you heard the word before? | What do you think it means? | Definition |
|-----------|---------------------------------|-----------------------------|------------|
| inflicted |                                 |                             |            |
| abundance |                                 |                             |            |
| mirth     |                                 |                             |            |



### **English Lesson 1:**

# Scarecrows



The strangest thing happened to me today, I don't think I've had such a good laugh since this cursed war started. We were a few clicks out of Rouen and at the end of a long recce when we started to take heavy mortar fire from some Germans bunkered down in the woods over the brow of a hill. I don't know if they knew we were there or if it was just some dumb-luck training exercise. Either way, it don't matter to Shuck Jones. Nor his widow.

Anyway, once the clouds had stopped raining shells, we found ourselves off course and laying down on the outskirts of some farmer's wheat field in the middle of goodness-knows-where. Honestly, the ears shone with such a golden hue in the dusk light, for a minute I fooled myself into thinking I was back home in Kansas. I half expected to hear Pa hollering in the distance or Ma ringing the dinner bell. It was the first time since I shipped out that it struck home just how far away I was. Like Miss Garland said, "We're not in Kansas now."

We were crouched down there for a long time, feeling like we were trapped in a golden jail. When we did finally pop our heads up above the stalks, and what a sight that would have been for the farmer, we immediately wished we hadn't.

"Fire!" Tommy was normally the quietest amongst us, but seeing the dozen or so German troops dotted around the field, he suddenly found his voice.

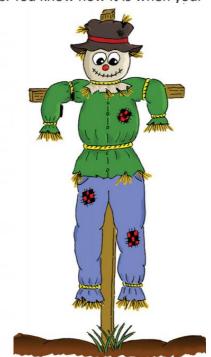
Tensions are always high amongst soldiers, but they're never more so than when you've just come under attack. None of us hesitated. I reckon we probably spent a couple of hundred rounds in all, aiming in all directions. All our training back in Georgia went out the window. I know I hit at least three of them, but they wouldn't fall, and they never returned fire. Helmets pinged and flew away and their uniform - already tattered and torn - fell to pieces. From every wound we inflicted, golden, yellow straw fell in abundance...

"Cease fire!" I called over the ruckus. I suddenly realised what we were doing. I couldn't help myself; tears filled my eyes, and I fell to the floor in fits of giggles. You know how it is when your

best friend starts laughing, and you can't help but join in?
This was worse. Like I said before, I don't think I've had such a good laugh since the war started. "They're scarecrows!" I wheezed through aching cheeks. "Nothing but scarecrows!"

That was it, then. The entire company fell about laughing. What a sight we were! Sure enough, probably alerted by all the gunfire, the farmer had come bustling into his precious field and stood to our left with his jaw about to scrape the mud off the floor!

"You'll be paying for all that, I assume?" he said, only to be met by fresh howls of mirth! I haven't stopped laughing since!





# PONTEFRACT ACADEMIES TRUST

#### **Questions:**

| 1) | After an attack, the soldiers find themselves on the outskirts of a farmer's |
|----|------------------------------------------------------------------------------|
|    | field.                                                                       |

wheat orchard Rouen empty 2) suddenly sees a dozen or so German troops around the field. **Shuck Jones** Miss Garland Georgia Tommy 3) As golden, yellow \_\_\_\_\_ begins to fall, the narrator realises that they are shooting at scarecrows. giggles bullets helmets straw 4) What impression does 'trapped in a golden jail' suggest about the soldiers and the field?

5) Match these words to the most appropriate definition! As a challenge, can you write these words out alphabetically too?

| Word      |
|-----------|
| bunkered  |
| hesitated |
| hollering |
| tattered  |

| Definition |
|------------|
| dithered   |
| hidden     |
| ragged     |
| yelling    |

**6) Why do you think the author wrote this story?** Use evidence from the text and your own ideas to support your opinion.

#### **VOCABULARY FOCUS**

- 1. What does the author mean by "cursed war"?
- 2. What is the "brow of a hill"?
- 3. Use a dictionary to find the definition of the word "hue".
- 4. Find another suitable synonym for "hesitated" in the fi 2 h paragraph.
- 5. Using the context in the story, what do you think "ruckus" means?





### **English Lesson 3: To use descriptive language.**

Use the following links to make notes about what life would have been like in the city and countryside during the Second World War.

<u>London Can Take It [1940, WWII documentary of one night of 247 nights of the bombing of London] - YouTube</u>

Evacuation of children during the World War II - YouTube

| City         |      |      |  |
|--------------|------|------|--|
|              | <br> | <br> |  |
|              |      |      |  |
|              | <br> | <br> |  |
|              |      |      |  |
|              |      |      |  |
| Countryside  |      |      |  |
| Courter your |      |      |  |
|              | <br> | <br> |  |
|              | <br> | <br> |  |
|              |      |      |  |
|              | <br> | <br> |  |
|              |      |      |  |
|              |      | <br> |  |
|              |      |      |  |
|              |      |      |  |
|              |      | <br> |  |





**Task:** Using the images below, use **descriptive language** to create sentences about how you would be feeling during the war whether you were in the countryside or in a city. Use the **five senses** to describe how you would be feeling and include a combination of **parenthesis** and **subordinate clauses** within your sentences. Write in 1<sup>st</sup> person.

For example: While the bombs were dropping, sweat poured from my brow and the sound of my heart was like thunder ringing in my ears.





### <u>Word bank</u>

shaking terrified officers pounding air raids bombs excited trembling pumping grinning rattling ecstatic gas mask nervous billeting office/officer optimistic smog identity card countryside





### **English Lesson 4: To identify the features of an informal letter.**

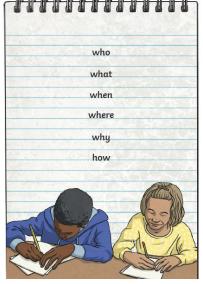
#### **Features of an Informal Letter:**

- Sender's address usually positioned in the top right of the page which tells the recipient where the letter has come from.
- Date the date in which the letter was written
- An appropriate greeting used to address the reader
- Introduction usually an introductory sentence or paragraph asking about the reader.
- Themed paragraphs
- Written in first person uses pronouns such as 'l', 'me', 'we', 'my', 'us'
- Slang and conversational language
- Fronted adverbials words or phrases at the beginning of a sentence to describe the action that follows.
- Five senses used to create an overall sense of your surroundings by describing what you can see, hear, smell, touch and taste.
- Parenthesis adds extra information for the reader and uses the punctuation: brackets, dashes and commas.
- Relative clauses clauses that describe a noun or pronoun and start with a relative pronoun such as:
   which, who, whose
- A range of tenses used: past, present and future
- Appropriate sign off e.g. Lots of love, From, Love
- · Rhetorical questions directly addressing the reader
- Range of punctuation brackets, commas, exclamation marks, question marks, colons, dashes

| Sender's address                  |
|-----------------------------------|
| Date                              |
| Greeting                          |
| Introduction                      |
| Themed paragraphs                 |
| First Person                      |
| Slang and Conversational Language |
|                                   |

| Fronted Adverbials   |
|----------------------|
| Five Senses          |
| Parenthesis          |
| Relative Clauses     |
| Range of Tenses      |
| Appropriate Sign Off |
| Rhetorical Questions |
| Range of Punctuation |

Year 6 Letter Writing: Informal



| appreciate | please                                                                    | for                                                                                                                                                             |
|------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| correspond | can you                                                                   | because                                                                                                                                                         |
| determined | don't forget                                                              | αs                                                                                                                                                              |
| especially | I can't wait                                                              | after                                                                                                                                                           |
| marvellous | all the best                                                              | before                                                                                                                                                          |
| recommend  | best wishes                                                               | once                                                                                                                                                            |
| dear       | love from                                                                 | as soon as                                                                                                                                                      |
| dearest    | p.s.                                                                      | while                                                                                                                                                           |
| I hope     | when                                                                      | whilst                                                                                                                                                          |
| thank you  | since                                                                     | afterwards                                                                                                                                                      |
|            | correspond determined especially marvellous recommend dear dearest I hope | correspond can you  determined don't forget  especially I can't wait  marvellous all the best  recommend best wishes  dear love from  dearest p.s.  I hope when |















1st August, 2015

#### Dearest Great-Aunt Lucy,

I'm writing to you from my own bedroom in my new home, here in London. I've been adopted by a marvellous family who are called The Browns (whose generosity to bears seems limitless) and I want to tell you all about them and my adventures.

Since you moved into the Home for Retired Bears in Lima so many weeks ago, my life has been extraordinary! Having stowed away aboard a lifeboat on a gigantic container ship, I finally made it to England - just as you said I should. Although it was an extremely long journey, luckily I had just enough of your delicious marmalade to keep me going. On arrival in the port, I climbed on a train and ended up at a huge, bustling railway station where I thought I might find some friends. Unfortunately, I was there for hours before someone spoke to me even though I raised my hat and said, "Good morning," most politely every time anyone passed. In addition, I made sure the label you wrote the one with 'please look after this bear'- could be seen but everyone ignored me.

Thankfully, just as I was about to give up hope, an especially kind couple - The Browns - saw me and decided that they would take me home and look after me. Can you believe that? Since no one can pronounce my name in Peruvian bear language, they even gave me a new name. I am now called Paddington! Mr Brown explained that it is a very distinguished name for a bear.

When we flagged down a taxi, the driver said I couldn't get in because I was a bear; I gave him one of my special hard stares and he soon changed his tune - ha ha! At the Browns' home, I was introduced to Mrs Bird (who is their housekeeper: she looks after them all) and their two children - Judy and Jonathan. My room is located in the attic; it has an incredible view of the city.

Mrs Brown insisted that I needed a coat to keep me warm so she's bought me a beautiful blue duffle coat with a red lining. I'm enclosing a picture of myself in it, looking very smart. As you can see, it goes a treat with Great-Uncle's hat. Oh, talking of which, I've discovered a brilliant way for any bear to ensure that he's always full of energy: Mrs Bird makes me a marmalade sandwich each morning, which I keep in my hat for emergencies!



Even though I've only been here a couple of weeks, I've made lots of friends already. The best is Mr Gruber - he's an antique dealer in Portobello Road. Whenever we visit his shop, he's always got fascinating artefacts to show us. On the other hand, there are less-friendly neighbours around. Mr Curry (the grumpiest man alive) lives a few doors away and he's ALWAYS complaining about something or other. Do you know what he said to Mr Brown last week? 'Bears make the street look scruffy: you'll reduce our house prices.' What a cheek!

Anyway, Mrs Brown has just shouted up that we're off for a trip to the Natural History Museum so I've got to get going now. So exciting: apparently there's a blue whale skeleton there... Write soon and let me know how you are. What are your friends at the Home for Retired Bears like?

Lots of love and marmalade,

#### Paddington

p.s. Even though it's pretty yummy, Mrs Bird's marmalade isn't a patch on yours!

The features of an informal letter can be found below. Using the key, number the features in the example letter. You could even use a colour code to show the features clearly.



'sender's address

<sup>5</sup>paragraphs around a theme

9conclusion

<sup>2</sup>date

first person

10complimentary close

<sup>3</sup>appropriate greeting

<sup>7</sup>chatty, informal style

<sup>11</sup>finishes with the sender's name or signature

4introduction

<sup>8</sup>addresses the recipient directly





### **English Lesson 5: To compare and evaluate different letters.**

Using the list of features, analyse and compare these two different letters, identifying the strengths and areas for development of each one. Read each letter and identify at least **3** areas of strength and **3** areas of development. Your answers should include evidence such as: Letter one makes good use of rhetorical questions such as: 'That's normal, right?'

### **LETTER ONE:**

Dear Mum,

I hope you are safe and well in London.

15 Wellington St. Bridgley Nr Exeter 04.05.42

When I got on the train to Bridgley, I was very upset after saying goodbye. There were lots of other children (who were crying or shouting) on the train. I wanted to cover my ears - but I thought better of it. I felt a little overwhelmed so I didn't eat my lunch. Maybe that's why I felt a little queasy when I got there? We arrived at the billeting office on Thursday afternoon. I had to sit in my chair quietly and wait for someone to collect me. I felt nervous and homesick. That's normal, right? At first, waiting made me very anxious. I didn't know if anyone wanted a Londoner like me. I felt queasier and more panicked as the time passed. After what felt like hours, a man who only had a little hair and round glasses arrived. He looked very serious and I was terrified that he would shout at me, but he smiled which calmed me down a little. Afterwards, he told me to keep my chin up and come along with him.

The man's name is Mr Read and he is the schoolmaster. At the minute, I'm staying with him and his wife in a house on the top of a steep hill, on a winding country road. There are apple trees in an orchard here and the air smells like wet grass and earth. I am enjoying exploring the garden and feel relaxed now that I am here. I'm grateful that I'm staying with nice people – it's such a relief!

Tomorrow, I am going to school. There are going to be more than a hundred children there. Can you believe that?! Mr Read says there will be a lot of evacuees like me. I hope I get along well. I can't imagine what it'll be like for me if I don't I would like to do some more maths and spelling but I am not sure what the schools are like here so I will have to see. So, how's life in the city?

I miss you very much and I will write to you again soon.

Lots of love,

James

P.S. I hope to see you all soon.





### **LETTER TWO:**

Oxford City Waterworks, Swinford, Oxford,

11-5a.m.

15-9-39

Dear Mummy and Daddy,

Many thanks for your nice letter received this morning.

I have just finished my elevenses.

I have just started Pitman's Shorthand and I now know about 40 words.

Colin has given me a big knife with a long, fat blade for cutting things (in fact, I even cut Paddy's meat with it,). a thing for making holes, and a pencil sharpener.

Jean has gone to Auntie Marion's for her holidays at Birmingham. Auntie Phyllis was not well enough to have her there. Jean went on Tuesday and I sleep in her bed now.

I am wondering about my school. Auntie is going to Oxford this afternoon to see about it. The secondary schools have not opened yet... Colin starts school on Monday.

I am very interested in the shorthand. Jean started teaching me before she went away. Gwen then gave me a book on the Grammalogues of the system and she also gave me a French book at the same time.

You may see a cut under the m of time on the previous line. That was made by my new knife (it is a very old one really as you may see by the rust).

Auntie thanks you for her letter and will be sending you one soon.

Give my love to Gyp and I hope all are well. I am! So are Auntie, Uncle, Colin and Paddy.

We all send our love John



### Reading for Productivity: Lesson 1 – Geography



## Fairtrade

#### Trade Not Aid

Established in 1992, the Fairtrade Foundation aims to give small-scale farmers a better deal, offering families in rural communities a stable income enabling them to plan for their future. A Fairtrade deal is 50% owned by farmers and workers which gives them an equal voice in decision making. Larger plantation companies must protect workers' rights, keeping them safe and healthy.

The benefits of being a Fairtrade farmer include a Fairtrade Premium. This is an additional sum of money, which goes towards developing the farming community, protecting the environment farmers live and work in. A Fairtrade Price is a guaranteed minimum price, which covers the cost of sustainable production. This means decent working conditions and a living wage.

### The Fairtrade Mark

Buying items with the Fairtrade mark (shown below) means you are helping to support farmers and workers around the world, giving them a fair price for their products.



#### Did You Know?

The Fairtrade system...

- supports 1.65 million farmers and farm workers.
- includes 1226 producer organisations.

#### **Fairtrade Products**

One in three bananas bought in the United Kingdom is Fairtrade. This makes a huge difference to farmers, workers and their families. You can identify Fairtrade products around your home by looking for the Fairtrade logo. Examples of Fairtrade products include coffee, tea, bananas, flowers, chocolate, gold and cotton.



# Where Can You Find Fairtrade Organisations?

Fairtrade works in 74 countries across 4 continents.





#### Fairtrade



Papua New Guinea
Certified farmers: 3241
Certified organisations: 5
Fact: Until 1933, people here used seashells as currency.

#### Mexico

Certified farmers: 35 339
Certified organisations: 59
Fact: Mexico introduced
chocolate, corn and
chillies to the world.

#### Uganda

Certified farmers: 48 048 Certified organisations: 14

Fact: Many people depend on farming as a main source of income. 90% of women in rural communities are farm workers.

#### Fairtrade Facts

- An average coffee farmer lives on just £1.37.
- You can become a Fairtrade School.
   There are currently around 1100
   Fairtrade Schools in the UK.
- Most cocoa farmers have never tasted chocolate!

- Cocoa farmers in Ghana live on less than \$1 a day.
- Every day in the UK we drink more than 8 million Fairtrade drinks.
- More than 3000 products have been licensed as Fairtrade.

### Glossary

rural - an area in the countryside rather than the town

income - money received, on a regular basis, for work

plantation - an estate or area where crops are grown

workers' rights - the legal entitlement to pay, benefits and safe working conditions

sustainable - able to be maintained at a certain rate or level

living wage - a wage high enough to maintain a normal standard of living





### **Reading for Productivity: Lesson 1 - Geography Questions**

| 1.         | When was the Fairtrade Foundation established in the United Kingdom?                                                                                                                                                                   |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.         | What are the main aims of Fairtrade? Give two.                                                                                                                                                                                         |
| <br>3.     | Explain what a Fairtrade deal is.                                                                                                                                                                                                      |
| <br>4.     | Fairtrade Premium is an additional sum of money that is given to farmers. What is its purpose?                                                                                                                                         |
| <br>5.     | Why do you think it is important to protect the environment that the farmers and workers live in?                                                                                                                                      |
| 6.         | Do you think it is good to buy Fairtrade products? Explain.                                                                                                                                                                            |
| <br>7.<br> | Look at the numbers of certified Fairtrade farmers around the world. Are farmers keen to join the Fairtrade system? Why?                                                                                                               |
| 8.         | Which of these would not be a reason for becoming a Fairtrade School?  You can make a difference in the world.  You can earn extra pocket money.  You can learn about where your food comes from.  You can learn about making choices. |
| 9.         | Every day in the UK, we drink more than 8 million Fairtrade drinks. What does this tell you about people's opinion of Fairtrade products?                                                                                              |



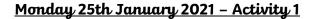




### Year 5-6 Extended Curricular Learning

### <u>Geography - Fair Trade</u>





#### **VIPs**

Fair trade is an arrangement to help producers in developing countries achieve a 'fair' price for the items that they source to help them to improve their social and environmental situations. Global supply chain is when one country supplies many other countries with a specific product. Sustainability is a way of maintaining the supply of goods and that destroying of rainforests threatens the trade of products such as palm oil.

Today you will learn about Fair Trade and how it hopes to have an impact on the world we live in. You will learn about the journey of a chocolate bar from 'bean to bar'

- 1. Research Fairtrade make notes during your research.
- 2. Use the links to learn about the journey of chocolate from bean to bar. How does buying fair trade help the farmers?

Year 5 – Can you create a poster showing the journey of chocolate from bean to bar, add illustrations and detailed labels for each part of the journey. include the impact of Fairtrade where relevant.

Year 6 – Can you create a factual information text showing the journey of chocolate from bean to bar. Your work should be presented in a formal tone, using paragraphs to describe each part of the journey from bean to bar. Include details on how Fairtrade has had an impact.

#### Deepen the moment

Look in your cupbourds at home, can you find any products with the Fair Trade logo on? What types of products are they? What information would you tell people to convince them to buy fair trade products?

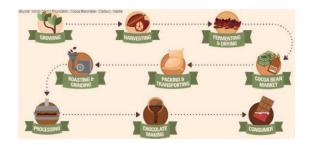
Divine | From Bean to Bar (divinechocolate.com)

Home | Fairtrade Foundation

Chocolate: The Journey From Beans to Bar | Rainforest Alliance (rainforest-alliance.org)

Journey from Cocoa to Chocolate







### Reading for Productivity: Lesson 2 - DT



### The History of cake

#### WHAT IS A CAKE?

The word 'Cake' comes from Viking origin, from the Old Norse *kaka.*Which means a baked flour confection sweetened with sugar or honey

The ancient Greeks called cake πλακοῦς (plakous), which was derived from the word for "flat", πλακόεις (plakoeis). It was baked using flour mixed with eggs, milk, nuts, and honey. They also had a cake called "satura", which was a flat heavy cake

As techniques for baking developed, and eating patterns changed, what were originally seen as forms of bread came to be seen as categories of their own and so the cake was born.

#### **CAKES THROUGH HISTORY**

- Ancient Egypt was the first culture to show evidence of true skill in baking, making many kinds of bread including some sweetened with honey.
- The Greeks had a form of cheesecake
- The Romans developed early versions of fruitcakes with raisins, nuts and other fruits.

### CAKE IN ENGLISH SPEAKING AREAS

No other language has a word that means exactly the same as the English 'cake.'

In 14th century Britain. Chaucer, an English author and poet, mentions immense cakes made for special occasions. One was made with 13 kilograms of flour and contained butter, cream, eggs, spices, currants and honey.





### Reading for Productivity: Lesson 2 – DT Questions



- 1. Where does the word cake come from?
- 2. The ancient Greeks word was derived from a word meaning what?
- 3. What is a satura?
- 4. Who were the first culture to show 'true baking skill?'
- 5. Match the cake to the civilisation

Ancient Egypt Fruitcakes

The Romans Bread sweetened with honey

The Greeks Cheesecake

6. How much flour was used in an immense cake mentioned by Chaucer?

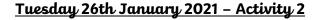






### Year 5-6 Extended Curricular Learning

### DT - The history of cake





#### **VIPs**

For guaranteed results it is advised to follow a recipe. Accuracy with weights and measurements are important. The name cake comes from Viking origin from the Old Norse word 'kaka'. The basic ingredients in cake are flour, eggs and milk. Baking means to dry heat without direct exposure to a flame e.g. in an oven. Knowing a cake is ready is important. Placing a toothpick or fork in and if it comes out clean, your cake is cooked through

During WW2 ingredients we take for granted today we rationed as they were in short supply. Today you are going to follow a recipe to make a Wartime cake.

Year 5 & 6 – Follow the recipe below to make a Wartime cake. How does your cake taste? Would you recommend a Wartime cake? Take photo's of your baking and upload them onto ClassDojo.

#### Deepen the moment

How did rationing change the way people ate during WW2? What other ingredients could you add to your cake? Would they have been available during the War? If food was rationed today, what would you miss the most and why?

## Wartime

Sponge Cakes

# Ingredients

1½ oz Margarine

1½ oz Sugar

2 oz Self-raising flour





# Method

Cream the margarine and the sugar until soft and light

Gradually beat in the egg

Add the flour and mix well

Half fill the cases

Bake for 12 minutes at 180°





Reading for Productivity: Lesson 3 – Spanish



# Why Spain now has 'more pets than children aged under 15'



Dog walkers in the Retiro park in Madrid.

The number of registered dogs, cats and rabbits in Spain has rocketed by 40 percent in the past five years, meaning there are now more pets in Spain than children under 15. But why is the number of pets outgrowing the number of kids in Spain?

According to figures from the Spanish Network for the Identification of Pets (REIAC) there were 13 million registered pets in Spain last year and the numbers are rising. Of those 13 million registered pets, 93 percent were dogs, 6 percent cats and the rest mainly rabbits. Indeed, the number of registered dogs, cats and rabbits in Spain has rocketed by 40 percent in the past five years alone.

Surprisingly, there are now more pets in Spain than children aged under 15.

The Local reported recently that in the region of Asturias alone, the number of households that now include a dog have outpaced those that include humans under the age of 18.

But that doesn't tell the full story as not everyone will register their pet officially, even though every dog and cat has to have a microchip according to Spanish law.

## And the reason for the huge jump in the number of cats and dogs in Spain?

Solis, a vet, points to the huge and growing number of people living alone in Spain. According to a recent study conducted by the National Statistics Institute (INE), more than two million people over the age of 65 live alone in Spain.

One reason, according to him, is the social factor and therapeutic effect the animals have on humans.

"People who live alone find company in their pet, someone who understands them and that they can talk to, someone that makes them leave the house and talk to other pet owners," Solis told El Commercio recently.





A study carried out some years ago found that in some situations, people are more willing to help a needy dog than a child and feel more empathy in general towards the animal than a grown-up human. The reason, as the researchers suggested, was mainly the perceived helplessness of the dog in contrast to the human.

But it's not just about more people living alone.



The example of Asturias points to another reason why the number of pets is outpacing the number of children.

What is notable about the growing number of pets in Asturian is that they coincide with a decline of young people and birth rates: According to data from El Comercio, the number of dogs has been increasing steadily by about 10,000 every year over the last decade. At the same time, the percentage of children and adolescents diminished and since 2017, dogs officially outnumber young people living in Asturia.

## Abandoned pets

The huge rise in the number of pets in Spain is not all good news for animals. Spain also has a sorry record when it comes to abandoned pets. In 2018 there were 138,000 dogs and cats abandoned, according to the Affinity Foundation. Solis believes things are improving slowly but says there is still a long way to go to meet the level of countries like Holland, Belgium or England, when it comes to caring for pets.





## Reading for Productivity: Lesson 3 – Spanish Questions

- Q1) How many registered pets were there in Spain last year?
- Q2) How many people over the age of 65 live alone in Spain?
- Q3) Which word in the first paragraph means the same as 'increased'?
- Q4) According to the Affinity Foundation, how many abandoned dogs and cats were there in 2018?
- Q5) Explain why people who live alone are more likely to get a pet.
- Q6) 'The Local reported recently that in the region of Asturias alone, the number of households that now include a dog have **outpaced** those that include humans under the age of 18.' What do you think the word **outpaced** means?
- Q7) According to the text, what does every dog and cat have to have to be legal?
- Q8) Look at the final paragraph '**Abandoned pets**'. What is the main message in this paragraph?
  - a) There are more pets in Spain than under 15s.
  - b) In Spain, people are giving their pets good homes.
  - c) People in England, Belgium and Holland look after their pets better than people in Spain.
- Q9) 'A study carried out some years ago found that in some situations, people are more willing to help a needy dog than a child and feel more empathy in general towards the animal than a grown-up human.'

How does this statement make you feel as a child under the age of 15?

Q10) Look at the paragraph beginning 'What is notable...'. What is the link between the growing number of pets and the birth rate?

## <u>Deepen the moment</u>

Many adults seem to face the dilemma of getting a pet or having a child. What do you think the pros and cons are of each?







## <u>Year 5-6 Extended Curricular Learning</u> <u>Spanish - Pets</u>



### Wednesday 27th January 2021 - Activity 3

#### **VIPs**

Conjunctions can be used to join sentences together and extend dialogue. un = 'a' (masculine singular), una = 'a' (feminine singular) unos = translates as 'some' In Spanish, r is pronounced by slightly rolling the r. To use the phrases: Tienes mascotas? Do you have any pets? And Sí, tengo un perro. – yes I have a dog.

Today you will learn the names for different animals in Spanish. You will practise speaking Spanish using today's phrases. Watch the video links below and rehearse saying the different animals, can you use the numbers you know to say 'I have 3 dogs' or 'I have 4 cats?'

Year 5 – Practise telling someone what pets you have. Draw and label a Spanish pet shop, using the pet words from today and your number knowledge.

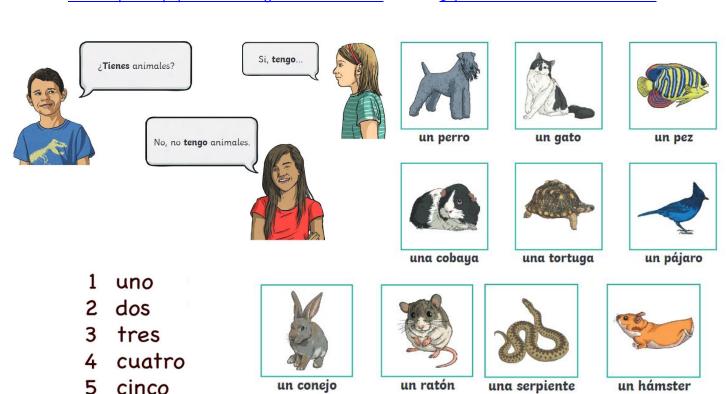
Year 6 – Practise telling someone what pets you have. Draw and label a Spanish pet shop, using the pet words from today and your number knowledge. Write a short script between two people discussing their pets.

#### Deepen the moment

Can you use the Internet to find out the names of more unusual animals and add them into your pet shop? What is the most unusual pet you can find the name of in Spanish?

#### Pets in Spanish | Spanish Learning for Kids - YouTube

#### ¿Qué Mascota Tienes Tú? - YouTube





## Reading for Productivity: Lesson 4 – Science



## Sir Isaac Newton

- · Occupation: Scientist, mathematician, and astronomer
- Born: January 4, 1643 in Woolsthorpe, England
- Died: March 31, 1727 in London, England
- Best known for: Defining the three laws of motion and universal gravitation

#### Biography:

Isaac Newton is considered one of the most important scientists in history. Even Albert Einstein said that Isaac Newton was the smartest person that ever lived. During his lifetime Newton developed the theory of gravity, the laws of motion (which became the basis for <a href="mailto:physics">physics</a>), a new type of mathematics called calculus, and made breakthroughs in the area of optics such as the reflecting telescope.

#### **Early Life**

Isaac Newton was born in Woolsthorpe, England on January 4, 1643. His father, a farmer who was also named Isaac Newton, had died three months before his birth. His mother remarried when Isaac was three years old and left young Isaac in the care of his grandparents.



Isaac Newton by Godfrey Kneller

Isaac attended school where he was an adequate student. At one point his mother tried to take him out of school so he could help on the farm, but Isaac had no interest in becoming a farmer and was soon back at school.

Isaac grew up mostly alone. For the rest of his life he would prefer to work and live alone focused on his writing and his studies.

#### College and Career

In 1661, Isaac began to attend college at Cambridge. He would spend much of his life at Cambridge, becoming a professor of mathematics and a fellow of the Royal Society (a group of scientists in England). He eventually was elected to represent Cambridge University as a member of parliament.

Isaac had to leave Cambridge from 1665 to 1667 because of the Great Plague. He spent these two years in study and isolation at his home in Woolsthorpe developing his theories on calculus, gravity, and the laws of motion.

In 1696 Newton became the warden of the Royal Mint in London. He took his duties seriously and tried to get rid of corruption as well as to reform the currency of England. He was elected President of the Royal Society in 1703 and was knighted by Queen Anne in 1705.





#### Scientific Discoveries

Isaac Newton made many scientific discoveries and inventions throughout his career. Here is a list of some of the most important and famous ones.

- Gravity Newton is probably most famous for discovering gravity. Outlined in the Principia, his
  theory about gravity helped to explain the movements of the planets and the Sun. This theory is
  known today as Newton's law of universal gravitation.
- Laws of Motion Newton's laws of motion were three fundamental laws of physics that laid the foundation for classical mechanics.
- Calculus Newton invented a whole new type of mathematics which he called "fluxions." Today
  we call this math calculus and it is an important type of math used in advanced engineering and
  science.
- Reflecting Telescope In 1668 Newton invented the <u>reflecting telescope</u>. This type of telescope uses mirrors to reflect light and form an image. Nearly all of the major telescopes used in astronomy today are reflecting telescopes.

#### Legacy

Newton died on March 31, 1727 in London, England. Today, he is considered one of the most influential scientists of all time alongside greats such as Albert Einstein, Aristotle, and Galileo.

#### Interesting Facts about Isaac Newton

- He studied many classic philosophers and astronomers such as Aristotle, Copernicus, Johannes Kepler, Rene Descartes, and Galileo.
- Legend has it that Newton got his inspiration for gravity when he saw an apple fall from a tree
  on his farm.
- He wrote his thoughts down in the Principia at the urging of his friend (and famous astronomer) Edmond Halley. Halley even paid for the book's publication.
- He once said of his own work "If I have seen further than others, it is by standing upon the shoulders of giants."





## Reading for Productivity: Lesson 4 – Science Questions

- 1. Why is Sir Isaac Newton considered to be one of the most important scientists in history? Explain your answer and provide evidence to support it.
- 2. Why did Isaac's mother want him to leave school?
- 3. Isaac is described as being an adequate student. Define the word adequate.
- 4. Why is he referred to as <u>Sir</u> Isaac Newton?
- 5. What is Sir Isaac Newton's theory of gravity also known as?







## Year 5-6 Extended Curricular Learning

## Science - Forces





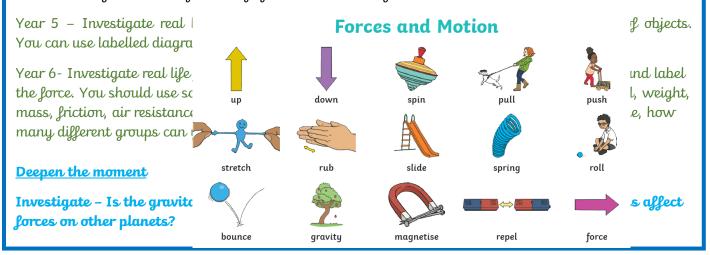
PUSH

PULL

#### **VIPs**

A force is a push or pull. Forces need to be equal and opposite for an object to stay still. Gravity is a force that pulls objects towards the centre of the Earth. Mass is how much matter. Weight is the measure of gravity acting on an object. More friction is created between rough surfaces. Less friction is created between smooth surfaces.

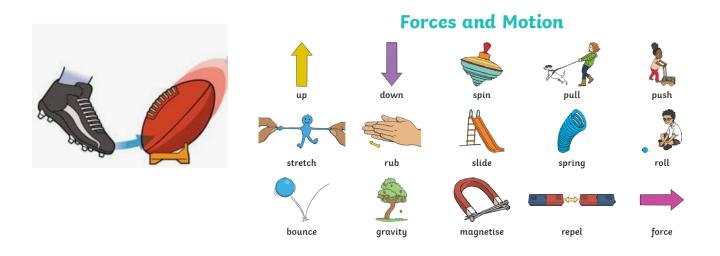
Today you will learn about forces. Watch the video links below and visit the BBC Bitesize page to revise Forces. Then you will look for real life forces in action in your home.



What Is A Force - YouTube

<u>Introduction to forces | Primary Science - Terrific Scientific Forces - LiveLesson - YouTube</u>

What are forces? - Forces - KS3 Physics Revision - BBC Bitesize







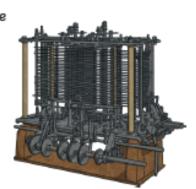


## The History of Computing

Laptops, smartphones, tablets, games consoles: these are all part of our day-to-day life. Have you ever wondered how and when they were invented? Although we can barely imagine the world without computers, it is only quite recently that they have become an integral part of our lives. However, mathematicians began to see the possibilities of computers hundreds of years ago.

The very first computers were actually human beings. The first recorded use of the word 'computer' was by Richard Braithwaite in 1613. In his book, he described a computer as a person who did very accurate calculations or 'computations'. Hundreds of years before that, in Babylon, the abacus was used as a calculation tool. A frame with beads to represent different numbers, the abacus was used to perform operations incredibly quickly. In countries such as Japan, children are still taught the art of the soroban, which is a type of abacus.

In 1837, a scientist called Charles Babbage designed the Analytical Engine. This huge machine would use cards with a series of punched holes to control a mechanical calculator. Many people consider Babbage to be the father of the computer because of this design, although it only performed single calculations. A few years later, in 1843, his colleague, Ada Lovelace, wrote a sequence of calculations, called an algorithm, for the Analytical Engine to perform. It was Ada who first identified the true potential of the machine.





#### Did You Know?

Ada Lovelace was the world's first computer programmer nearly two hundred years ago. Programmers today still write algorithms to instruct computers to perform different sequences of actions.





## The History of Computing

## Cryptology

Things developed quite slowly until the middle of the twentieth century. The outbreak of the Second World War, in 1939, created a need for computers to be developed which could decipher messages sent in code. Bletchley Park in Buckinghamshire was established as a top secret codebreaking centre and the best mathematicians in Britain were employed there. It was here that Alan Turing designed and built the Bombe specifically to decipher the German Enigma code. At its peak, the Bombe could decipher over 4000 messages every day and the information gained from these is believed to have to have significantly shortened the war. Experts believe it could have

continued for another two years were it not for the cryptologists (codebreakers) at Bletchley.

S. So sensitive was the intelligence gained at Bletchley, that every one of the Bombes built (over 200 of them) was deconstructed after the war.

Detail about the work done at Bletchley remained classified until the 1970s, 30 years after the end of the war.





### Did You Know

Bletchley Park is now a Codebreakers Museum. In 1994, the British Computer society began a project to build a working replica Bombe. It took 13 years and was installed at Bletchley Park in 2007.

## Rapid Developments

After centuries of relatively slow progress, developments in computing began to gain pace in the 1970s. Some of the first widely available computer games, Pong and Space Invaders, were designed in this decade and PacMan was born in 1980. Both Microsoft and Apple were founded in the 1970s. In 1975, Bill Gates dropped out of Harvard University to set up Microsoft, having identified the key role software would come to play in computing. In just over ten years, the company was so successful with its Windows operating system that he became the world's youngest billionaire at the age of only 31.





## The History of Computing



Apple took a little longer to become the market leader it is today but from 1997, when the company's cofounder, Steve Jobs returned as CEO, its reputation quickly spread. The first iPod was released in 2001, followed by the iPhone in 2007 and the iPad in 2010.

The World Wide Web was invented in 1989. Whilst Tim Berners-Lee is credited with its invention, he says that most of the technology used, such as hypertext and the Internet, had already been invented and he just put them all together. As he worked at CERN (a Swiss research establishment) at the time, it was CERN that created the world's first website in 1991.

It took time for the universally compatible hardware and software that we have today to be developed. In the 80s, computers such as the Commodore Amiga and ZX Spectrum competed for sales and used completely different operating systems. Computers were still quite expensive and many homes simply couldn't afford one. Today, hardware is much more affordable. The release of the Raspberry Pi, a small single-board computer, in 2012 (at a cost of only £35) introduced programming to school children all over the world. Now, there are many free online programs, such as Scratch, which have brought coding to the masses. Almost every aspect of our lives involves computers, from emailing and reading to gaming and texting. It's hard to imagine a time when we didn't have all this at our fingertips even though it was less than half a century ago!



#### Did You Know

The first email was sent in 1971 and by 2015, it was estimated that over 205 billion emails were sent EVERY DAY!





## Reading for Productivity: Lesson 5 – Computing Questions

| 1. | Find and copy a phrase that tells us computers are an integral part of life.       |         |       |
|----|------------------------------------------------------------------------------------|---------|-------|
| 2. | Name two technological developments which didn't exist in the 1950s.  1.           |         |       |
|    | 2                                                                                  |         |       |
| 3. | Why is Charles Babbage sometimes known as the father of computing?                 |         |       |
| 4. | Tick to show if the statements are true or false.                                  |         |       |
|    |                                                                                    | Truc    | False |
|    | School children in Japan use an abacus called a soroban.                           |         |       |
|    | Charles Babbage designed the Bombe.                                                |         |       |
|    | An algorithm is a type of computer.                                                |         |       |
|    | Bletchley Park was the home of Second World War codebreakers.                      |         |       |
|    | Microsoft was founded by Steve Jobs.                                               |         |       |
| 5. | Why was the codebreaking work done at Bletchley Park so important in the S<br>War? | econd \ | World |
|    |                                                                                    |         |       |
|    |                                                                                    |         |       |
|    |                                                                                    |         |       |
| 6. | When did the public first learn about the work done at Bletchley Park during       | the Sec | ond   |
|    | World War? Tick one.                                                               |         |       |
|    | In the 1960s                                                                       |         |       |
|    | At the end of the war                                                              |         |       |
|    | In the 1970s                                                                       |         |       |





| 7.  | What are the advantages of universally compatible hardware and software?          |
|-----|-----------------------------------------------------------------------------------|
|     |                                                                                   |
| 8.  | Which of these were created in the 1970s? Tick one.                               |
|     | Microsoft, Space Invaders and Apple                                               |
|     | Microsoft, Apple and the World Wide Web                                           |
|     | Apple, the World Wide Web and the Raspberry Pi                                    |
| 9.  | Why is the development of affordable programming hardware and software important? |
|     |                                                                                   |
| 10. | Name three things we use computers for today.                                     |
|     | 1                                                                                 |
|     | 2                                                                                 |
|     | 3.                                                                                |







## Year 5-6 Extended Curricular Learning

## <u>Computing – The history of computing</u>



Friday 29th January 2021 - Activity 5

#### **VIPs**

An algorithm is a sequence of instructions or a set of rules that are followed to complete a task. Program commands can change the backdrop. Tools can be used to change the brush, line, ellipse, select (resize) and line width. Scratch Games can be enhanced by adding sound, movement and commentary.

This term we should be using Scratch to build and edit algorithms for simple games. Today we will be designing our own computer game, thinking about the location of different levels and the characters or avatars used within the game.

Year 5 – Design your own computer game, think about different levels, where will they be set? What is the aim of your game? What characters or avatars will play inside the game? You can use any computer programme to help with you game development. If you do not have access to programming at home, complete this task using drawings and annotations, upload your pictures onto ClassDojo.

Year 6- Design your own computer game, think about different levels, where will they be set? What is the aim of your game? What characters or avatars will play inside the game? You can use any computer programme to help with you game development. If you do not have access to programming at home, complete this task using drawings and annotations. Include written information about your game, write about the choices you have made, the settings and characters.

#### Deepen the moment

Why is coding so important for the future? Think about the technological developments in the last 30 years, make predictions about how technology and computing will be used in the next 30 years.

#### BBC Bitesize What is an Algorithm

