

Home Learning Pack Year 4

Week commencing 15th June 2020

Hello Year 4!

Another two weeks have flown by! How are you all? We hope you are staying safe and looking after each other and your families. It feels like forever since school closed and we are missing you all lots. There have been lots of changes going on in the news lately with more places slowly starting to open and even though we're not sure when we'll see you next, we are still here for you! You can contact us on Purple Mash or you can email us at homelearning@greenlane.ngfl.ac.uk. We would really love to hear from you!

With having so much extra time on our hands, it could be a nice idea to learn a new skill or practice an existing one. Mr Evans has been spotting and then painting birds in the wild and Mrs Wakelin has been gardening (around the rain!). Miss Parkin has been learning how to French braid her hair and doing some research about how is best to look after the new flowers in her garden. Mrs Forbes has started to teach her son Jack how to cook some delicious food such as cupcakes and even lasagne! Is there anything that you want to get better at or learn how to do? Do you want to improve your drawing skills or maybe learn how to do a hand stand? Have a think, is there anything new you want to do? Let us know what you've all been up to.

As well as using our fantastic work packs, have you been doing any online learning? There are loads of fun games and tasks to do on Purple Mash and it's a great way to keep in touch with friends and teachers. TT Rockstars, NumBots, Bug Club and Spelling Shed are also available! Your brain is a muscle too so do try and keep it working regularly. All of the teachers still check to see who's going online and reply to any messages.

As well as your brain it's important to work out the other muscles in your body. Your health and wellbeing are very important, if you are not doing so already, follow Joe Wick's workout routine every morning at 9am https://www.youtube.com/results?search_query=joe+wicks. Make it a fun-filled competition, why not get the whole family to join in? Alternatively, quiet 'me time' is also necessary, meditation, reading and yoga will help you strengthen and relax your mind. You are allowed to exercise as much as you like outside now so make the most of it. Ride your scooter/bike, go jogging/running or take a walk. Remember if there are other people out, who do not live in your house, make sure you are at a distance from them (2 meters minimum).

We do advise that you try to have a good routine during this time. This would include:

- Having regular bedtimes and waking up/breakfast times.
- Try not to stay in your pyjamas once you have got up.
- Have regular meal times where you can eat together and talk. Don't be afraid to ask questions.
- Turn off your screens at least an hour before bed so that you rest and sleep properly - it doesn't help any of us if we are tired and grumpy in the mornings.

Please don't forget that we are here for you; email our school home learning or on Purple Mash. Stay safe and take care of yourselves,

Love from,

Miss Parkin, Mrs Forbes, Mrs Wakelin and Mr Evans

Just like we do at school, why don't you try to do some morning arithmetic activities each day? Ask a grown up to set you some questions each morning.

This pack will cover some work that we did at school at the beginning of the year.

Place Value of 4-Digit Numbers

1. Write the numbers in the correct place on the table.

| Clue | 4-digit Number |
|--|----------------|
| The number has 2 thousands, 4 hundreds, 8 tens and 3 ones. | |
| The number has 9 thousands, 3 hundreds, 1 ten and 7 ones. | |
| The number has 8 thousands, 7 tens and 2 ones. | |
| The number has 6 thousands, 3 hundreds and 5 ones. | |

8,072

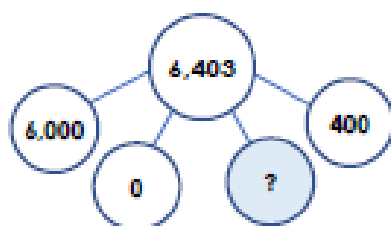
9,317

2,483

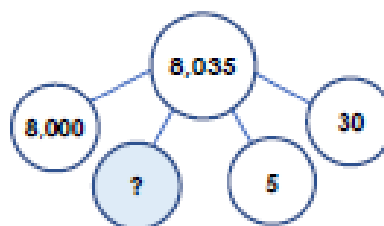
6,305

2. Are these statements correct? How do you know?

A. The missing number is 3.



B. The missing number is 100.



3. Theo is creating the number 4,307.

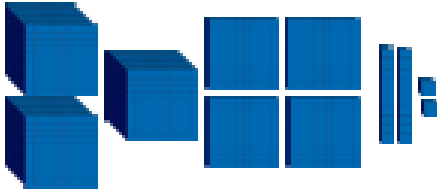







If I add 2 more hundreds, my new number will be 4,307.

| 1,000s | 100s | 10s | 1s |
|-------------|------|----------|-----|
| 1,000 1,000 | | 10 10 10 | 1 1 |
| 1,000 1,000 | | | 1 1 |
| | | | 1 |

Explain Theo's mistakes.

Find 1s, 10s, 100s and 1,000s More or Less

| | | | | | | | |
|---|---|-------|---|-------|---|-------|--|
| <p>1. Starting with the number represented by Base 10, complete the calculations.</p> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> • Add 80 • Subtract 2,000 • Add 200 <p>What is the final answer?</p> | <p>5. Sinead thinks of a number. What number did she start with?</p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; margin: 10px auto; width: 80%;"> <p>I add 3,000 to it, subtract 70, add 4, then subtract 200. My answer is 5,099.</p> </div> <div style="text-align: right; margin-top: 10px;">  <p>Sinead</p> </div> | | | | | | |
| <p>2. Put these numbers in order from 1,592 to 3,092. The numbers increase by 300 and some have been covered.</p> <div style="display: flex; justify-content: space-around; align-items: center; text-align: center;"> <div style="margin: 10px;"> <p>1,592</p>  </div> <div style="margin: 10px;">  <p>1,892</p> </div> <div style="margin: 10px;"> <p>3,092</p>  </div> </div> | <p>6. Complete the sequence.</p> <div style="display: flex; justify-content: center; align-items: center; gap: 10px; margin: 10px 0;"> <div style="border: 2px solid orange; border-radius: 10px; padding: 5px 15px;">6,893</div> <div style="border: 2px solid orange; border-radius: 10px; padding: 5px 15px;">6,863</div> <div style="border: 2px solid orange; border-radius: 10px; width: 40px; height: 40px;"></div> <div style="border: 2px solid orange; border-radius: 10px; padding: 5px 15px;"></div> <div style="border: 2px solid orange; border-radius: 10px; padding: 5px 15px;">6,773</div> </div> <p>What is the sequence decreasing by each time? Explain how you know.</p> | | | | | | |
| <p>3. Match the calculation to the correct answer.</p> <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tbody> <tr> <td style="width: 30%; padding: 5px;">A. Add 2,000 to 6,705, then add 300.</td> <td style="width: 30%; padding: 5px; border: 1px solid gray; border-radius: 10px; text-align: center;">4,005</td> </tr> <tr> <td style="padding: 5px;">B. Subtract 600 from 4,665, then add 4.</td> <td style="padding: 5px; border: 1px solid gray; border-radius: 10px; text-align: center;">9,005</td> </tr> <tr> <td style="padding: 5px;">C. Add 3,000 to 1,205, then subtract 200.</td> <td style="padding: 5px; border: 1px solid gray; border-radius: 10px; text-align: center;">4,069</td> </tr> </tbody> </table> | A. Add 2,000 to 6,705, then add 300. | 4,005 | B. Subtract 600 from 4,665, then add 4. | 9,005 | C. Add 3,000 to 1,205, then subtract 200. | 4,069 | <p>7. Kelly says,</p> <div style="text-align: right; margin-top: 10px;">  <div style="border: 1px solid gray; border-radius: 15px; padding: 10px; display: inline-block;"> <p>When I add 600 to 2,799, I get 8,799.</p> </div> <p>Kelly</p> </div> <p>Correct Kelly's answer and explain her mistake.</p> |
| A. Add 2,000 to 6,705, then add 300. | 4,005 | | | | | | |
| B. Subtract 600 from 4,665, then add 4. | 9,005 | | | | | | |
| C. Add 3,000 to 1,205, then subtract 200. | 4,069 | | | | | | |
| <p>4. Complete the calculations.</p> <p>A. $5,778 + 40 =$</p> <p>B. $4,155 - 200 =$</p> <p>C. $1,330 - 6 =$</p> | | | | | | | |

Round to the Nearest 100

1. Cindy and Kyle are rounding the number below to the nearest 100.

5 hundreds, 5 tens and 5 ones



Kyle

The answer is 500.



Cindy

The answer is six hundred.

Who is correct?

2. Round each number to the nearest 100 to find the odd one out. Write the odd one out for each part in the answer boxes below.

A.

667

six hundred and forty-two

698

six hundred and eighty

B.

389

three hundred and six

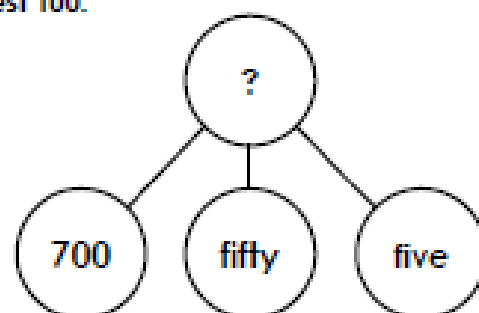
two hundred and ninety

341

3. Taylor is thinking about rounding to the nearest 100.



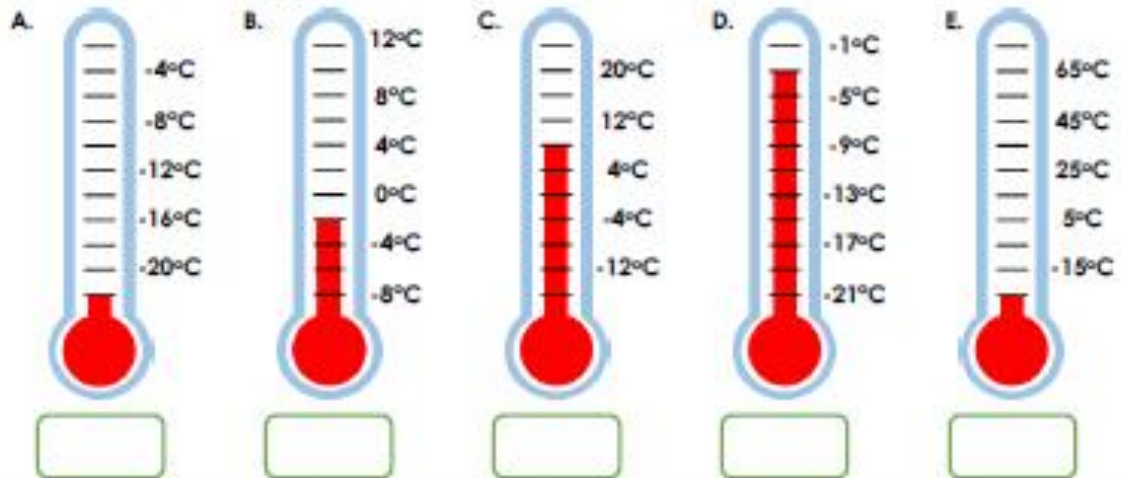
This number rounded to the nearest 100 is 700.



Is Taylor correct? Explain your answer.

Negative Numbers

1. Write the correct temperature for each thermometer.



2. Diego the diver wants to reach the treasure. He dives down 8 metres. How much further does he need to go to reach the top of the treasure chest?



3. Suzie is counting backwards.



When I count back in 5s from 25, I will say -10.

Is she correct? Explain how you know.

Addition and Subtraction

Addition

1 Complete the calculation.

| | Th | H | T | O |
|---|----------------------|--------------------|-------------------------------|--------------------------|
| | 1,000 1,000 | 100 | 10 10 10 10 10 10 10 | 1 1 1 1 1 1 |
| + | 1,000 1,000 1,000 | 100 100 100 100 | 10 10 10 10 10 | 1 1 1 1 1 1 1 1 |

| | | Th | H | T | O |
|--|---|----|---|---|---|
| | | 2 | 1 | 7 | 6 |
| | + | 3 | 4 | 5 | 8 |
| | | | | | |
| | | | | | |

2 Who has got each question correct? Tick your answer.

a) Nijah

| | | H | T | O |
|--|---|----|---|---|
| | | 4 | 4 | 5 |
| | + | 3 | 4 | 8 |
| | | 78 | 1 | 3 |
| | | | | |

Scott

| | | H | T | O |
|--|---|---|---|---|
| | | 4 | 4 | 5 |
| | + | 3 | 4 | 8 |
| | | 7 | 9 | 3 |
| | | | 1 | |

b) Nijah

| | | Th | H | T | O | |
|-------|---|----|---|---|---|--|
| | | 4 | 8 | 2 | 6 | |
| | + | 1 | 7 | 8 | | |
| <hr/> | | | | | | |
| | | 6 | 6 | 0 | 6 | |
| <hr/> | | | | | | |
| | | 1 | 1 | | | |

Scott

| | | Th | H | T | O | |
|-------|---|----|---|---|---|--|
| | | 4 | 8 | 2 | 6 | |
| | + | | 1 | 7 | 8 | |
| <hr/> | | | | | | |
| | | 5 | 0 | 0 | 4 | |
| <hr/> | | | | | | |
| | | 1 | 1 | 1 | | |

What mistake has the other person made in each calculation?

Talk about it with a partner.

3 Complete the additions.

a)

| | | Th | H | T | O | |
|-------|---|----|---|---|---|--|
| | | 4 | 7 | 1 | 2 | |
| | + | 3 | 4 | 9 | 2 | |
| <hr/> | | | | | | |
| | | | | | | |
| <hr/> | | | | | | |
| | | | | | | |

c) $3,784 + 2,526$

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b)

| | | Th | H | T | O | |
|-------|---|----|---|---|---|--|
| | | 6 | 0 | 7 | 5 | |
| | + | | 9 | 4 | 8 | |
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d) $79 + 654 + 1,312$

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4 Write each calculation in the correct column.

| | | |
|---------------|-----------------|-----------------|
| $712 + 394$ | $1,312 + 2,527$ | $2,350 + 3,760$ |
| $1,995 + 712$ | $3,044 + 2,372$ | $17 + 953$ |

| No exchange needed | 1 exchange | More than one exchange |
|--------------------|------------|------------------------|
| | | |

Write one more calculation of your own in each column.

5 Dexter is playing a computer game.

The table shows the number of points he gets in each round.

| Round | 1 | 2 | 3 |
|------------------|-------|-------|-------|
| Number of points | 3,550 | 2,175 | 1,895 |

a) How many points does Dexter have at the end of Round 2?

| | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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| | | | | | | | | | | | | | | | | |

b) He needs 8,000 by the end of Round 3 to win the game.

Does Dexter win the game? _____

Show your working.

| | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

6 Work out the missing digits.

a)

| | | Th | H | T | O |
|--|---|----|---|---|---|
| | | 3 | 7 | | 9 |
| | + | | | 8 | |
| | | 6 | 9 | 2 | 5 |

b)

| | | Th | H | T | O |
|--|---|----|---|---|---|
| | | | | 8 | 1 |
| | + | | 9 | 8 | |
| | | 4 | 2 | | 8 |

c) Find two possible answers.

| | | Th | H | T | O |
|--|---|----|---|---|---|
| | | 2 | | 1 | |
| | + | 3 | | 6 | |
| | | 6 | 1 | 8 | 2 |


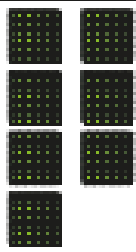

| | | Th | H | T | O |
|--|---|----|---|---|---|
| | | 2 | | 1 | |
| | + | 3 | | 6 | |
| | | 6 | 1 | 8 | 2 |

How did you work this out? Talk about it with a partner.

Are there any more answers?

Suntraction

1 Kim has made a number using base 10

| Th | H | T | O |
|---|---|---|---|
|  |  | |  |

a) Subtract 8 from Kim's number.

b) Explain the method you used.

c) Subtract 20 from Kim's number.




d) Subtract 900 from Kim's number.

e) Complete the subtractions.

$1,702 - 28 = \boxed{}$

$1,702 - 928 = \boxed{}$

2 Use the place value chart to complete the subtractions.

| H | T | O |
|---|---|---|
|  |  |  |

a) $564 - 354 =$





c) $564 - 365 =$

b) $564 - 355 =$

Look at your calculations in parts a), b) and c).

What is the same? What is different?

3 Use the place value chart to complete the subtractions.

| Th | H | T | O |
|---|---|---|--|
|  |  |  |  |

a) $5,435 - 2,036 =$

b) $5,436 - 2,036 =$

c) $5,437 - 2,036 =$

Look at your calculations in parts a), b) and c).

What is the same? What is different?

4 Complete the calculations.

a)

| | | Th | H | T | O |
|-------|---|----|---|---|---|
| | | 7 | 3 | 2 | 5 |
| | - | 2 | 4 | 0 | 6 |
| <hr/> | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

c)

| | | Th | H | T | O |
|-------|---|----|---|---|---|
| | | 7 | 1 | 0 | 2 |
| | - | | 3 | 9 | 8 |
| <hr/> | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

b)

| | | Th | H | T | O |
|-------|---|----|---|---|---|
| | | 5 | 6 | 3 | 4 |
| | - | 2 | 7 | 4 | 5 |
| <hr/> | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

d)

| | | Th | H | T | O |
|-------|---|----|---|---|---|
| | | 5 | 0 | 0 | 0 |
| | - | 1 | 7 | 3 | 3 |
| <hr/> | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

5 A jug contains 1,500 ml of juice.



The juice is poured into 2 glasses.
Each glass holds 258 ml of juice.
How much juice is left in the jug?



6 Work out the missing digits.

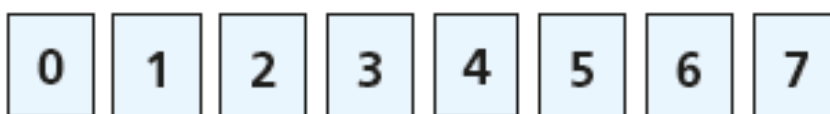
a)

| | Th | H | T | O |
|---|----|---|---|---|
| | 7 | | | 4 |
| - | 1 | 2 | 3 | |
| | | 9 | 5 | 8 |

b)

| | Th | H | T | O |
|---|----|---|---|---|
| | 4 | 0 | | 3 |
| - | | | 3 | 8 |
| | | 8 | 4 | |

7 Arrange all the digit cards to make a possible subtraction for each description.



a) There are 2 exchanges.

The answer is less than 2,000

| | | | |
|---|--|--|--|
| | | | |
| - | | | |

b) There are 2 exchanges.

The answer is greater than 4,000

| | | | |
|---|--|--|--|
| | | | |
| - | | | |

c) There are 3 exchanges.

| | | | |
|---|--|--|--|
| | | | |
| - | | | |

Measurement

In this pack, we are going to begin looking at measurement. We are going to start with perimeter.

What Is the Perimeter?

Ruby says the perimeter is the outside of a 2D shape.

How can you help Ruby to be more accurate with her explanation of perimeter?

The perimeter is the measurement of the outside of a 2D shape.



Mohammed says he remembers perimeter by saying it's how far an ant walks when it walks round the edge of a 2D shape.

Share with a partner how you might remember how to work out the perimeter of a shape.

How to Measure Perimeter

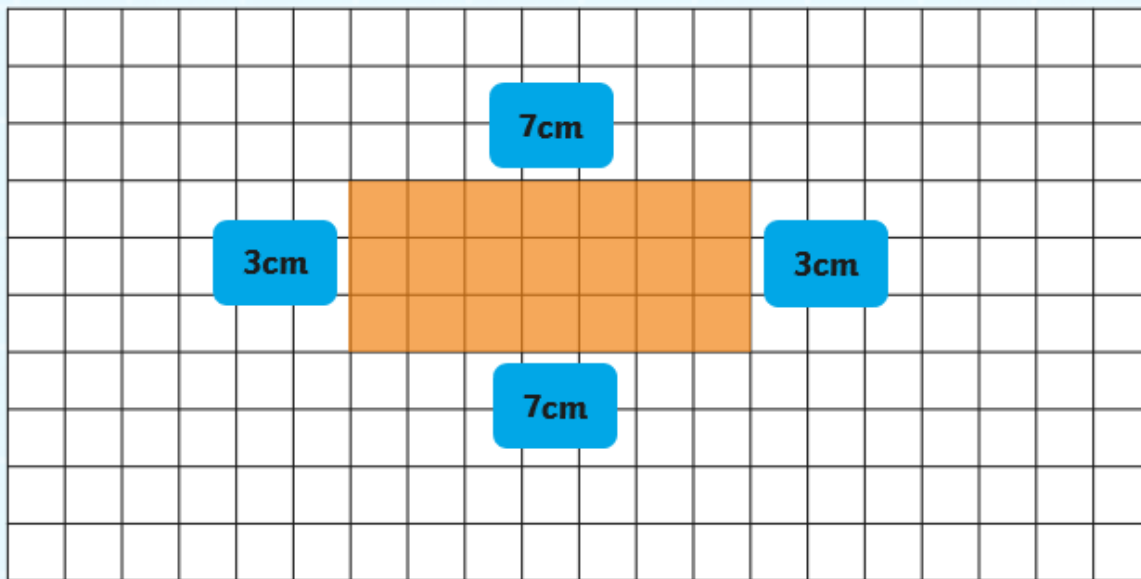


Mariam measures the perimeter of this rectangle by measuring 2 of the sides.



Explain how Mariam can correctly measure the perimeter of the rectangle?

Perimeter is the distance around the edge of a shape. Click on each length to add it to the sum below. Add all the lengths to calculate the perimeter of the shape.



$7\text{cm} + 3\text{cm} + 7\text{cm} + 3\text{cm} = \underline{\hspace{2cm}} \text{cm}$

Because rectangles have 2 pairs of identical sides, you can do this instead:

Calculate the perimeter of each rectangle by adding the length and width together and multiplying by 2.

| | |
|-----------------------|-----------------------|
| <p>3cm</p> <p>4cm</p> | <p>6cm</p> <p>5cm</p> |
|-----------------------|-----------------------|

$4\text{cm} + 3\text{cm} = 7\text{cm}$
 $7\text{cm} \times 2 = 14\text{cm}$

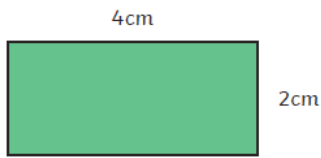
$6\text{cm} + 5\text{cm} = 11\text{cm}$
 $11\text{cm} \times 2 = 22\text{cm}$

Questions

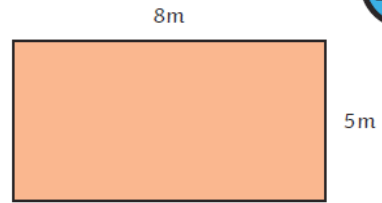
Stage 1

- 1) Calculate the perimeter of each rectangle.

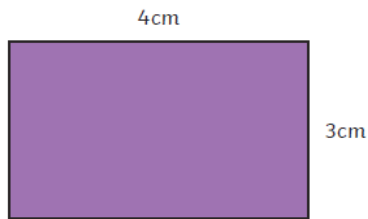
The rectangles are not drawn to scale.



$$\boxed{\text{cm}} + \boxed{\text{cm}} + \boxed{\text{cm}} + \boxed{\text{cm}} = \boxed{\text{cm}}$$



$$\boxed{\text{m}} + \boxed{\text{m}} + \boxed{\text{m}} + \boxed{\text{m}} = \boxed{\text{m}}$$

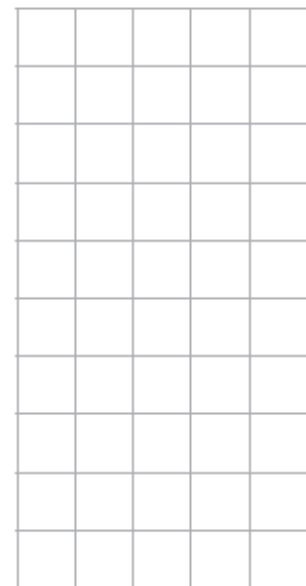
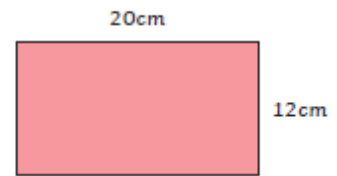
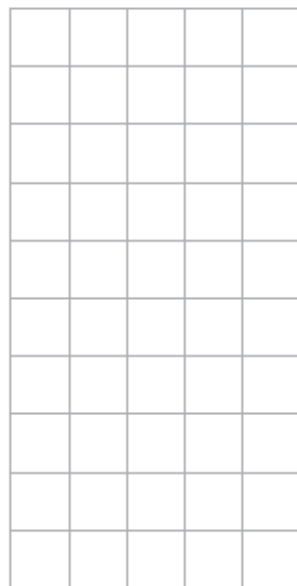
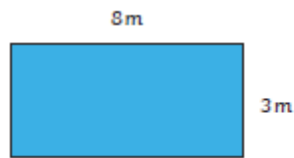


$$\boxed{\text{cm}} + \boxed{\text{cm}} + \boxed{\text{cm}} + \boxed{\text{cm}} = \boxed{\text{cm}}$$



$$\boxed{\text{m}} + \boxed{\text{m}} + \boxed{\text{m}} + \boxed{\text{m}} = \boxed{\text{m}}$$

- 2) Add the length and width together and multiply by 2 to calculate the perimeter of each rectangle. Show your working out.

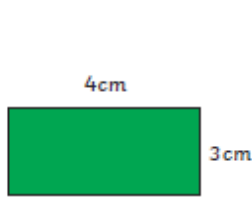


Stage 2

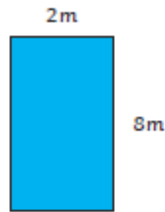
Sami is calculating the perimeters of different shapes.



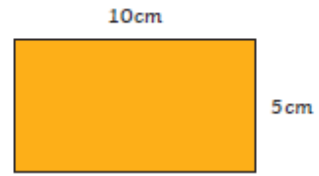
- 1) Look at his calculations. Which are correct? Can you explain why? Can you explain the mistakes and find the correct answers?



$$4\text{cm} \times 2 = 8\text{cm}$$



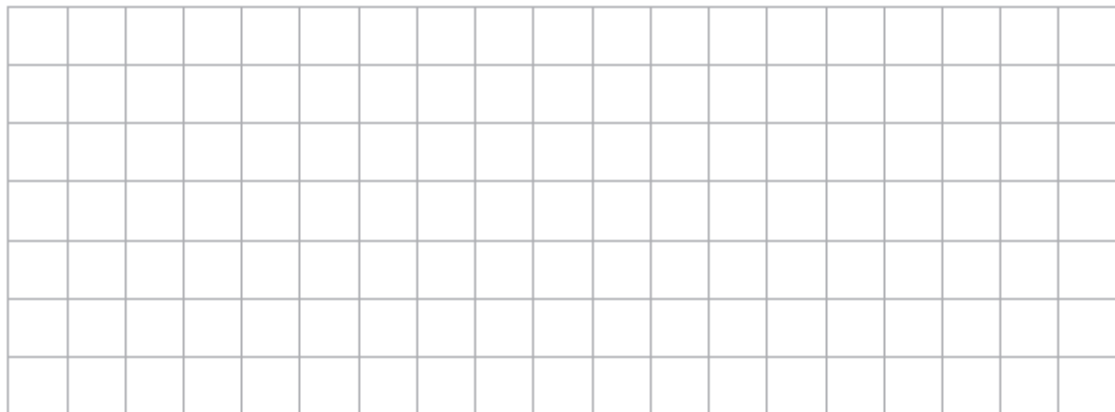
$$2 \times 8 = 16\text{m}$$



$$10\text{cm} + 5\text{cm} = 15\text{cm}$$

$$15\text{cm} \times 2 = 30\text{cm}$$

- 2) The perimeter of a rectangle is 18cm. One of its sides is 6cm. Draw the shape below and label all the sides with the correct measurements.



Stage 3

- 1) A rectangle has a perimeter of 36m.



The length of each side is a whole number. What could the length and the width of the rectangle be? Find all the possibilities.

- 2) Aiden measures the perimeter of his classroom. He notices the classroom is 1m wider than it is long. The perimeter of the classroom is between 20 and 35m. The length of each side is a whole number.

What could the dimensions of the room be? Find four different possibilities.

Every day, BBC Bitesize have an English activity on their daily learning page. Why not have a look each day? You could always try the learning from earlier year groups to remind yourself of work that you have done before.

Conjunctions

| | |
|--|--|
| <h3>Different Types of Conjunction</h3> <p>There are two different types of conjunctions and when we use them depends on what type of clause they are connecting.</p> <p>Can you remember what these two types of clause are?</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="432 1592 775 1977"> <h4>Independent Clause</h4> <p>The independent clause makes sense on its own because it is a complete thought.</p> <p>For example: I went to town. It was red.</p> </div> <div data-bbox="432 1193 775 1592"> <h4>Subordinating Clause</h4> <p>Support the independent clause. The opening words of subordinate clauses show that they are dependent on the independent clause.</p> <p>For example: After the storm had gone, she went out to play again.</p> </div> </div> | <h3>The Coordinating Conjunction</h3> <p>A coordinating conjunction is used to link two independent clauses (two clauses that would make sense if they were on their own.)</p> <p>Here is an example:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="475 898 499 1115">I love rollercoasters.</div> <div data-bbox="515 819 667 1122" style="text-align: center;"> </div> <div data-bbox="564 472 622 813">I love rollercoasters and I adore log flumes.</div> </div> <p>I adore log flumes.</p> |
|--|--|

This pack is going to look specifically at subordinating conjunctions. Here is some information we looked at in class:

Getting Started

What is a conjunction?

A conjunction links two or more words, phrases or clauses together.

There are **two** main types of conjunctions we use within sentences.
Do you know what they both are?

- **co-ordinating conjunctions** (*e.g. and*) link two main clauses together as an equal pair to create a compound sentence. We usually remember these words using the acronym 'FANBOYS'.
- **subordinating conjunctions** (*e.g. when*) introduce a subordinate clause. You can remember some of the most useful subordinating conjunctions by...

...spotting one of the rarest monsters on the planet, a wabub, and shouting...



I SAW A
WABUB!



I Saw a Wabub...

...is an acronym to help you remember the first letters of some of the most important subordinating conjunctions.

- If
- Since
- As
- When
- Although
- While
- After
- Before
- Until
- Because

I SAW A WABUB!



Next Steps

So, how do we use subordinating conjunctions?

Subordinating conjunctions are the first words within a subordinate clause. Subordinate clauses do not make sense on their own but when they are used with a main clause, they create a complex (multi-clause) sentence.

Subordinate clauses will always have a subject and verb within them, e.g.

| | |
|---|---|
| <p>after she smiled</p> <p style="margin-left: 20px;">↑ ↙ ↑</p> <p>subordinating subject verb</p> <p>conjunction</p> <p>is a subordinate clause</p> | <p>after Christmas</p> <p style="margin-left: 20px;">↑</p> <p>Here 'after' is being used as a preposition.</p> <p>is not a subordinate clause</p> |
|---|---|

Remember, a subordinate clause must include:+

Subordinating conjunction, a subject and a verb.

A subordinate clause does not make sense by itself.

In the sentences below, first highlight the conjunction. Then underline any independent clauses in blue and subordinate clauses in green (remember, the subordinate clause includes the subordinate conjunction). I have done a couple for you as an example:

I don't like scary rides **so** I didn't go on the rollercoaster.

I banged into the table **and** the pencil pot fell over.

| |
|---|
| <p>I have never liked heights, so I didn't go to the top.</p> |
| <p>Make a sandwich, unless you're eating out.</p> |
| <p>He still shouted at me and I cried.</p> |
| <p>Whether you like it or not, I'm going to the cinema.</p> |
| <p>They were going to build a road, but people didn't want them to.</p> |
| <p>I'll do it, because I'm going there anyway.</p> |

Creating Sentences Using Subordinate Clauses

How many correct sentences can you make by joining the main and subordinate clauses?
 You can use each clause more than once.

| Main Clause | Subordinate Clause |
|--------------------------|--------------------------------|
| We will go to the fair | provided that there is enough. |
| Put on your coat | before it's too late. |
| I'd love a slice of cake | because I'm bored. |
| I'm going into town | unless I say otherwise. |
| You should sit down | if it gets cold. |
| Put a tick next to it | until we get tired. |
| It should be fine | whenever you feel like it. |

In Science, our topic is all about Living Things

Here is the knowledge organiser with both parts.

| Living Things and Their Habitats | | Year 4 |
|----------------------------------|--|---|
| Key Vocabulary | | Life Processes |
| organisms | This is another word that can be used to mean 'living things'. | To stay alive and healthy, all living things need certain conditions that let them carry out the seven life processes : <div style="display: flex; justify-content: space-around;"> Growth Reproduction </div> <div style="display: flex; justify-content: space-around;"> Movement Excretion </div> <div style="display: flex; justify-content: space-around;"> Respiration Nutrition </div> <div style="display: flex; justify-content: space-around;"> Sensitivity </div> |
| life processes | The things living things do to stay alive. | |
| respiration | A process where plants and animals use oxygen gas from the air to help turn their food into energy. | |
| sensitivity | The way living things react to changes in their environment . | |
| reproduction | The process through which young are produced. | |
| excretion | The process by which living things get rid of waste products. | |
| nutrition | Food which provides living things with energy to live and stay healthy. | |
| habitat | The specific area or place in which particular animals or plants may live. | |
| environment | An environment contains many habitats and these include areas where there are both living and non-living things. | |
| endangered species | A plant or animal where there are not many of their species left and scientists are concerned that the species may become extinct . | |
| extinct | When a species has no more members alive on the planet, it is extinct . | |

Changes to an **environment** can be natural or caused by humans. Changes to an **environment** can have positive as well as negative effects. Here are some examples of things that can change an **environment**.


Natural

- earthquakes
- storms
- floods
- droughts
- wildfires
- the seasons

Human-Made



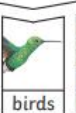


- deforestation
- pollution
- urbanisation
- the introduction of new animal or plant species to an **environment**
- creating new nature reserves

Plants and animals rely on the **environment** to give them everything they need. Therefore, when **habitats** change, it can be very dangerous to the plants and animals that live there.







| Key Vocabulary | Animals can be grouped in lots of different ways based upon their characteristics . |
|------------------------|--|
| classification | This is where plants or animals are placed into groups according to their similarities. |
| vertebrates | Animals with a backbone. |
| invertebrates | Animals without a backbone. |
| specimen | A particular plant or animal that scientists study to find out about its species. |
| characteristics | The distinguishing features or qualities that are specific to a species. |

vertebrates

invertebrates

Vertebrates can be separated into five broad groups.

You can use **classification** keys to help group, identify and name a variety of living things. Here is an example of a **classification** key:


Invertebrate Classification Key

```


graph TD
    Q1[Does it have legs?] -- yes --> Q2[How many legs does it have?]
    Q1 -- no --> Q3[Does it have a segmented body?]
    
    Q2 -- many legs --> Q4[Does it have an oval body?]
    Q2 -- 8 legs --> Q5[Does it have a two part body?]
    Q2 -- 6 legs --> Q6[Does it have wing cases?]
    
    Q3 -- yes --> Q7[Does it have a long, thin body?]
    Q3 -- no --> Q8[Does it have a shell?]
    
    Q4 -- yes --> W[woodlouse]
    Q4 -- no --> Q9[Does it have very short legs?]
    
    Q5 -- yes --> S[spider]
    Q5 -- no --> Q10[Does it have pincers on its tail?]
    
    Q6 -- yes --> H[harvestman]
    Q6 -- no --> Q11[Does it have a long, thin body?]
    
    Q7 -- yes --> E[earthworm]
    Q7 -- no --> L[larvae]
    
    Q8 -- yes --> SN[snail]
    Q8 -- no --> SL[slug]
    
    Q9 -- yes --> M[millipede]
    Q9 -- no --> C[centipede]
    
    Q10 -- yes --> EW[earwig]
    Q10 -- no --> B[beetle]
    
    Q11 -- yes --> CAT[caterpillar]
    Q11 -- no --> ANT[ant]
    
```

Plants can be sorted into many different groups. For example:

Flowering Plants



Non-Flowering Plants



The last couple of packs looked at putting living things into groups in different ways. This one will consider another way of grouping animals; whether or not they have a spine. The bones in your spine are called vertebrae and so a living thing that has a spine (backbone) can be called a **vertebrate**. We know that the prefix “in” means the opposite, so **invertebrate** means without a spine.

Vertebrates

These are animals with backbones.

Vertebrates are divided into five groups:

1. Mammals
2. Birds
3. Fish
4. Reptiles
5. Amphibians

Some examples of vertebrates: humans, elephants, cows, dolphins, cats, sparrows, frogs, fish and crocodiles.




twinkl.co.uk

Invertebrates

These are animals without backbones.

Invertebrates are divided into further groups. These include: Molluscs, Insects, Arachnids, Annelids, Crustaceans and Echinoderms.

Some examples of invertebrates: ladybirds, squids, bees, snails, centipedes, wasps and flies.



twinkl.co.uk

Read this short information text about invertebrates and then answer the questions:

Invertebrates are a species of animals that do not have a backbone. Mammals, amphibians, reptiles, fish, and birds are not invertebrates because they all have vertebrae (spinal bones). Vertebrates make up less than 4% of all the animal species on Earth. This means that around 96% of animal species alive are invertebrates. These include marine invertebrates and mollusks, such as sponges, jellyfish, and oysters, as well as crustaceans and insects, such as crabs, shrimp, and butterflies.

The largest invertebrate ever recorded was a giant squid that measured 40 feet long. The smallest invertebrates are so tiny that they cannot be seen by the naked eye.



1. Write a short definition of the word “invertebrate.”

2. What percentage of animals on Earth actually have spinal bones?

3. Who do you think this information is for?

4. Write two questions that you could find the answers to in this text.
 - a.

 - b.

Now we know lots of ways to put living things into groups we can start to look at a process of sorting that scientists use called **classification keys**.

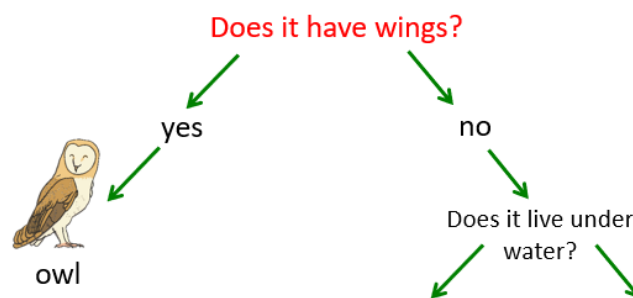
Classification keys are a way of identifying living things through a series of questions.

For example:

'Does it have wings?'



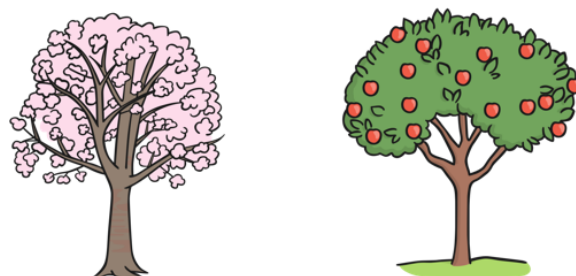
Each question has a **yes** or **no** answer and leads you one step closer to the name of the living thing.



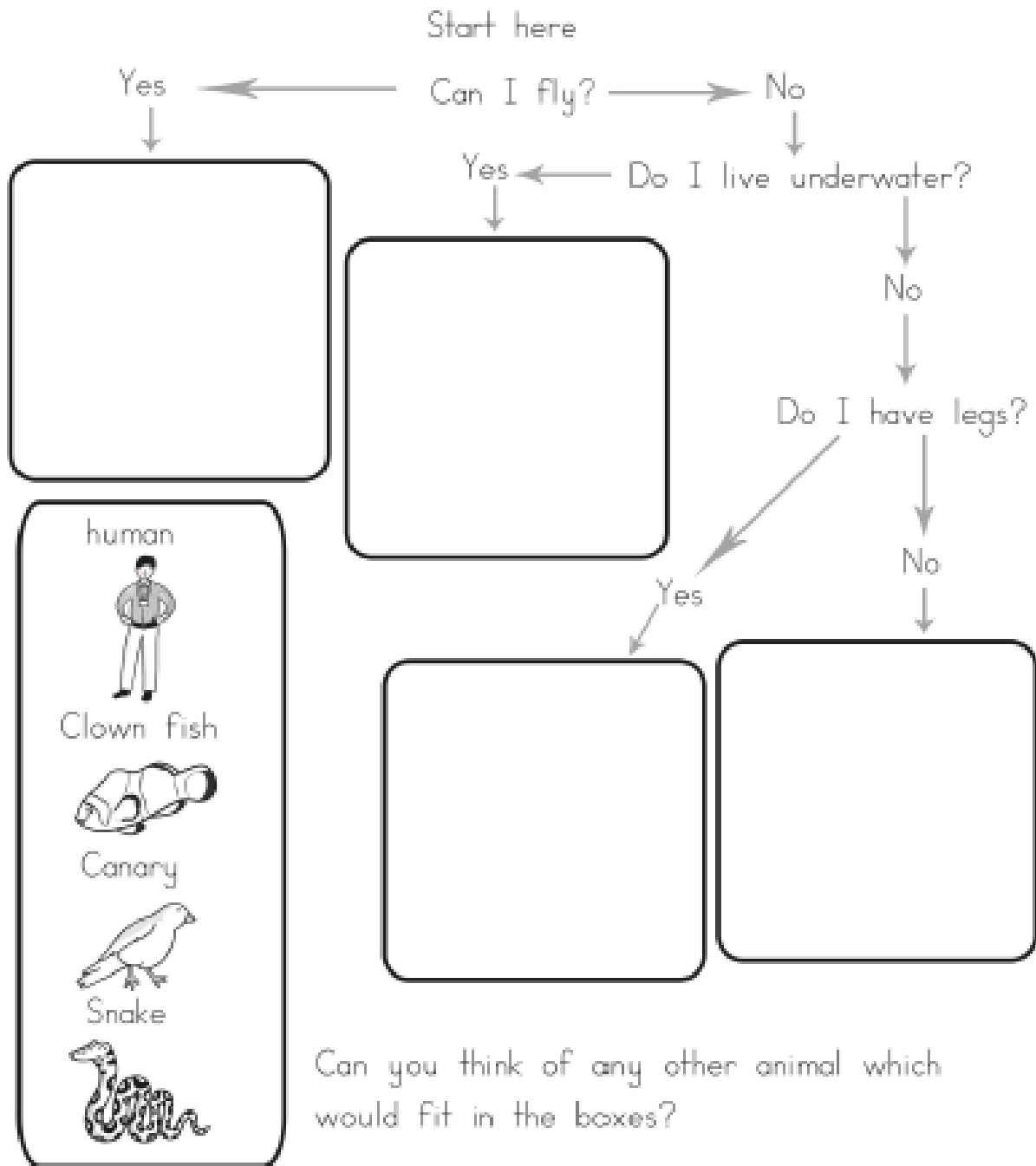
The first question is always quite general because it needs to help sort the living things you are classifying.



The questions will gradually get more specific as they separate living things that are more similar.



Have a go at these classification keys activities:



Sort the minibeasts from the bottom of the page.

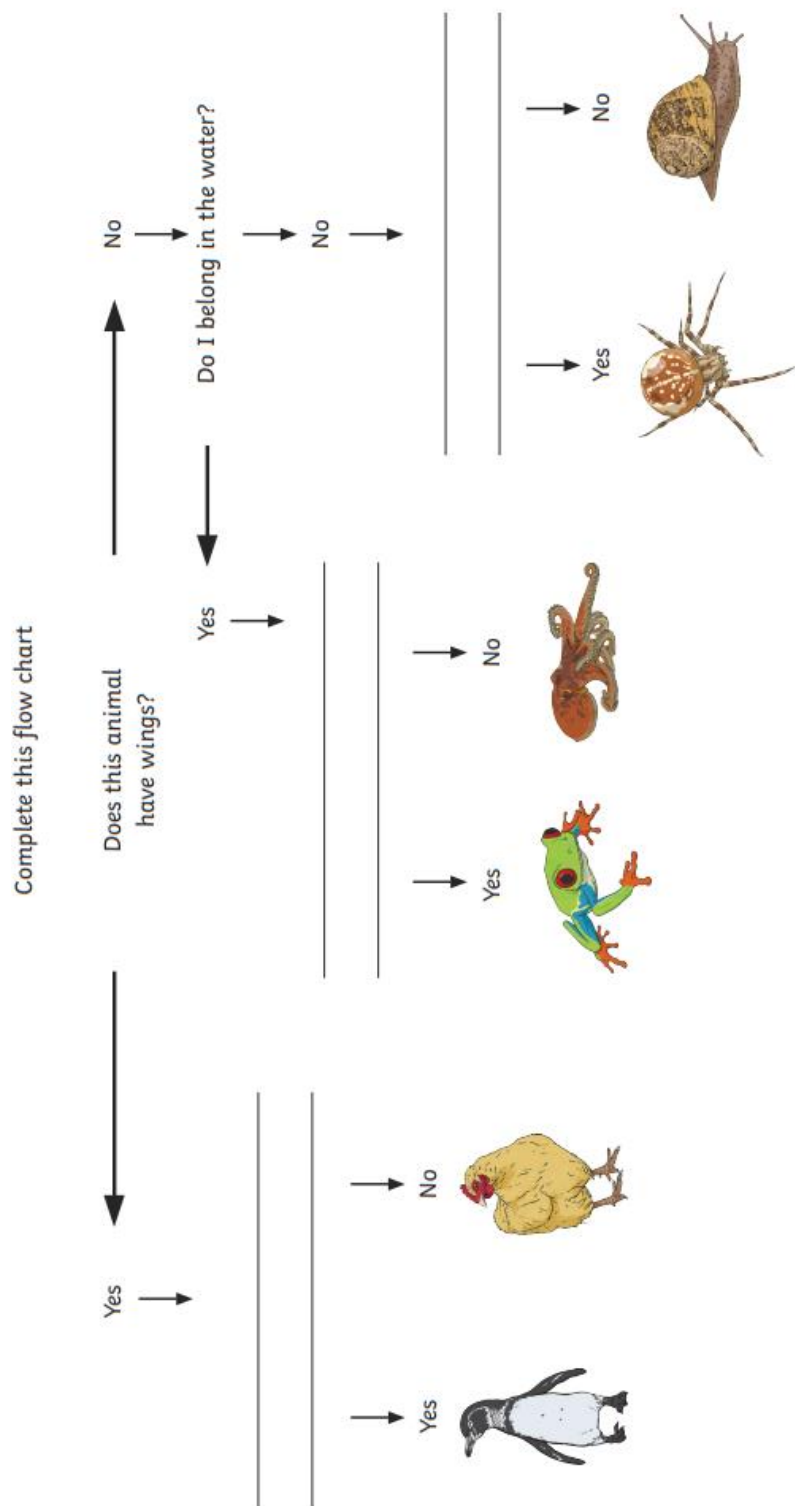
Flowchart for sorting minibeasts:

- Question: Has this minibeast got wings?
 - Yes → Question: Has it got a furry body?
 - Yes → []
 - No → []
 - No → Question: Have I got legs?
 - Yes → Question: Have I got more than 8 legs?
 - Yes → []
 - No → []
 - No → Question: Have I got a shell?
 - Yes → []
 - No → []

Minibeast illustrations (from left to right):

- Worm
- Butterfly
- Beetle
- Wasp
- Spider
- Snail

Can you think of questions that would sort these animals? Think carefully about the answers that are there (yes/no).



Doorstep Wildlife

Even if you live in a busy town or city, wildlife will be all around you as it manages to survive pretty much everywhere; you just have to look to find it! If you search hard enough, you will probably find signs of urban creatures in your street, on your school playing field, through your window, at the park or in any busy, built-up space. Let's take a closer look at just some of the animals and birds that manage to survive in our towns and cities...

Foxes

It is estimated that there are around 33,000 foxes (mammals with reddish orange fur and bushy tails) living in and around urban areas in the UK. They are the most common wild **carnivore** found in our towns and cities and have adapted brilliantly to life in busy surroundings. They eat a wide and varied diet, which includes food stolen from dustbins, bird tables and compost heaps, as well as wild mammals, birds, earthworms, beetles and fruit. Foxes are mostly **nocturnal** animals but they are often seen in urban areas during the day. Unfortunately, many foxes are sadly killed on the roads each year in the UK.



Hedgehogs

Hedgehogs can be found in almost all urban areas of the UK, except some areas of Scotland. The spiky mammals live in nests under hedges, where lots of insects and other **invertebrates** can be found. Unlike foxes and pigeons, hedgehogs are well-liked in the UK and are often called the 'gardener's friend' as they love eating creatures such as caterpillars, slugs and snails, which can often be very damaging to garden plants. Hedgehogs have sharp quills on their back. When they feel threatened, they contract two large muscles in their back. This causes these quills to straighten out. At the same time, the hedgehog also curls up into a ball, tucking its face and legs into its belly. This protects it from potential danger. Sadly, it is estimated that just one million hedgehogs are left in the UK, which is a 97% decrease since the 1950s.



Did You Know...?

Thinking it is good for them, people often leave bread and milk out in their gardens for urban hedgehogs to snack on. However, actually you should never feed hedgehogs milk as it can cause them to become terribly ill. Instead, try and provide them with plain, fresh water in a shallow bowl along with tinned dog or cat food.

Doorstep Wildlife

Pigeons

Pigeons are one of the most common birds within the UK. Their cooing calls are a very familiar sound within most cities and town centres. They survive by eating dropped food and litter, as well as insects, seeds and food from bird feeders in urban gardens. Pigeons are often considered to be vermin, with many people believing that they carry disease, damage property and pollute urban areas with their droppings. Some city councils have even tried to reduce the number of pigeons by destroying nesting sites, removing pigeon eggs from nests and introducing more regular litter collections.



Glossary

| | |
|--------------|---|
| carnivore | An animal that eats other creatures. |
| invertebrate | An animal without a backbone. |
| nocturnal | A creature that is active at night (and may sleep during daylight hours). |
| vermin | An animal that causes harm or damage or is difficult to control. |

How Can We Help Urban Wildlife to Survive?

Over the last few decades, the number of many urban animals has dropped, which is due mainly to the reduced numbers of gardens, parks and open green spaces. It is now much more dangerous for urban animals to find food and move from place to place than it was 50 years ago... but you can help them!

If you have any outdoor space or a garden, you could try to help urban animals by:

- making and hanging a simple bird feeder;
- making holes in fences;
- planting flowers and plants.



Questions:

Answer in full sentences where appropriate.

1. Which animal is the most common wild carnivore in the UK? Tick one:
 - a. Hedgehog
 - b. Pigeon
 - c. Fox
 - d. Badger

2. Draw three lines to match the urban animal to the correct fact.

hedgehogs

pigeons

foxes

cause pollution in town and city centres with their droppings

sometimes eat wild mammals and birds

like to live in places where there are lots of invertebrates

3. In the UK, how many hedgehogs are in the wild now?

4. Find and copy one word from the **Foxes** section of the text that means **changed**.

5. Fill in the missing words in this sentence.

Their _____ calls are a very familiar sound within most _____ town centres.

6. Why do councils want to control the number of pigeons in towns and cities?

7. Why are hedgehogs well liked in the UK?

8. Which of these animals are you most likely to see? Why?

This is a fact file about one of the countries most popular childrens' author:

David Walliams



Who Is David Walliams?
David Walliams is a comedian, actor and author. He is also a judge on a TV talent show and writes for TV. David raises money for the charity, Sport Relief, which helps people all over the world.

David's Childhood
David was born on 20th August 1971 in Merton, London. He was the child of Peter and Kathleen Williams. From a young age, he loved dressing up and his older sister Julie would often dress him up in girls' clothes for fun.

David went to school in Surrey, where his love of dressing up grew and his love of acting began. He was also on the school swimming team. At age 11, he acted in his first school play wearing a dress and made everyone laugh. This was the moment he knew that what he wanted to do with his life was make people laugh.

David the Author
David had a successful TV career and his own TV show. But he wanted to write a book about how it's OK to be different. In 2008, he published 'The Boy in the Dress' about a boy who loves football and wearing dresses. The book sold over half a million copies.

David has now written twelve chapter books for children and six picture books for younger readers. Some of his most famous books are 'Mr Stink', 'Billionaire Boy' and 'Gangsta Granny'. His books are often illustrated by Tony Ross, who also illustrates the 'Horrid Henry' books.



Did You Know...?

- David changed his name from Williams to Walliams because there was already an actor called David Williams!
- When swimming in the river Thames, David rescued a Labrador dog that had fallen in the river!
- David has sold over eight million books all over the world.



David Walliams



Many of David's books have now been filmed for TV and you can sometimes spot him acting in them too!

Charity Work

David has raised a lot of money for charity. In 2006, David swam the English Channel (from England to France) to raise money for Sport Relief. He swam 22 miles and raised over one million pounds. In 2011, David swam the length of the river Thames (140 miles) and raised more than two million pounds for Sport Relief. David was awarded an OBE by The Queen in 2017 for his charity work.

Questions:

1. What did David like doing as a child? Tick two.
 - a. Running
 - b. Dressing up
 - c. Writing
 - d. Acting

2. When was 'The Boy in the Dress' published? Tick one.
 - a. 2004
 - b. 2006
 - c. 2008
 - d. 2011

3. Draw lines to complete the sentences about David.

| | |
|---|--------------------|
| David has raised a lot of money for charity through | being different. |
| David wanted to write a book about | make people laugh. |
| David knew early on that he wanted to | swimming. |

4. Number the events below to show the order in which they happened in David's life.

- David had a successful TV career.
- David was born the son of Peter and Kathleen Williams.
- David published 'The Boy in the Dress'.
- David acted in his first play.
- David enjoyed dressing up with his sister.

5. Name two things that a fox might eat.

6. Fill in the missing words in this sentence.

David raised _____ million pounds for charity in 2011 and _____ million pounds for charity in 2006.

7. What did David rescue when swimming in the Thames?

8. Who often illustrates David's book? Why do you think he chose this illustrator?

As you know, during World War 2 the British government introduced rationing for certain items so that there would be a fair share for everyone. In this pack, I have included some WW2 recipes that you could try at home. Don't forget to send us pictures of the things you make.

Eggless Fruit Cake

- 10 oz self raising flour (or plain flour with 3 teaspoons of baking powder added)
- 1 teaspoon of mixed/all spice
- 1 level teaspoon of bicarbonate of soda
- pinch salt
- 1/2 pint of well strained tea
- 3 oz margarine
- 3 oz sugar
- 3 oz dried fruit

Grease and flour a 7 inch cake tin or a large loaf tin

Sift the flour, salt, bicarbonate of soda, baking powder and spice together into a bowl

Pour the tea into a saucepan and add the sugar, margarine and dried fruit

Heat until the fat and sugar melt and simmer for 2-3 minutes, stirring

Set aside to cool a little

Pour over flour mixture and beat well and spoon into cake tin

Bake in the centre of oven at 180 C for about an hour

Remove and leave to cool for a while before removing from tin

The texture of mine was rather like a tea bread... totally lovely by itself or served sliced and buttered if you wish



Wartime Scotch Shortbread

Melt 4 oz margarine, add 8 oz plain flour and 2 oz sugar, mix well and knead until the mixture binds together. If it is a little dry crumble it again and add a splash of milk and re knead. Put in an ungreased baking tin and press mixture down firmly so it is about 1/2 inch thick. Prick the surface and then cut into 10-12 portions.

Bake in centre of moderate oven for 30 + minutes.

Remove, sprinkle lightly with sugar

Serve.



Rock Buns

- 8 oz wholemeal/wholewheat flour
- 4 teaspoons of baking powder
- 1/2 teaspoon mixed spice/all spice
- 2 oz margarine
- 2 oz sugar
- 2 oz sultanas or dried mixed fruit
- 1 egg or 1 reconstituted dried egg
- milk
- 2 teaspoons sugar for topping

Method

Sift the flour, baking powder and spice

Rub in the margarine

Add the sugar, dried fruit and the egg

Gradually add enough milk to make a sticky mixture

Put spoonful onto parchment paper on baking tray (makes 12-14)

Sprinkle with the sugar

Cook in a hot oven for 12-15 minutes



As part of our “Who am I?” topic, we are going to look at famous artists who have done portraits and self-portraits. This pack will look at Yayoi Kusama.

WHO IS SHE?

Yayoi Kusama is a Japanese artist who is sometimes called ‘the princess of polka dots’. Although she makes lots of different types of art – paintings, sculptures, performances and installations – they have one thing in common, DOTS!

WHAT'S WITH ALL THE DOTS?

Yayoi Kusama tells the story of how when she was a little girl she had a hallucination that freaked her out. She was in a field of flowers when they all started talking to her! The heads of flowers were like dots that went on as far as she could see, and she felt as if she was disappearing or as she calls it ‘self-obliterating’ – into this field of endless dots. This weird experience influenced most of her later work.

By adding all-over marks and dots to her paintings, drawings, objects and clothes she feels as if she is making them (and herself) melt into, and become part of, the bigger universe. She said:

‘Our earth is only one polka dot among a million stars in the cosmos. Polka dots are a way to infinity. When we obliterate nature and our bodies with polka dots, we become part of the unity of our environment’.



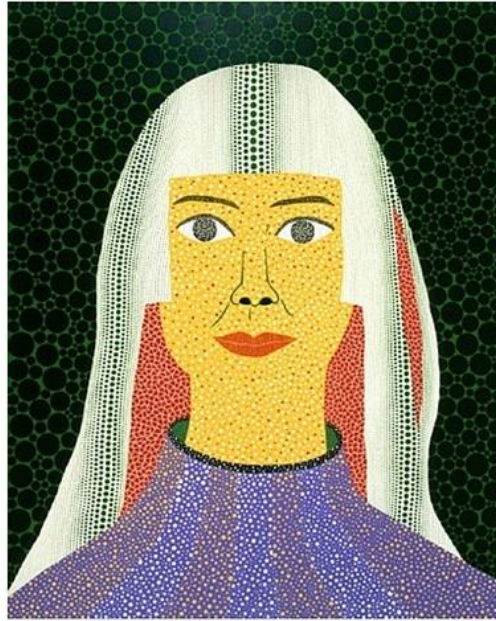
HOW DID SHE START?

Yayoi was born in Japan in 1929. She loved drawing and painting and although her parents didn't want her to be an artist, she was determined. When her mum tore up her drawings, she made more. When she could not afford to buy art materials, she used mud and old sacks to make art. This is a drawing she made of her mum when she was 10-years-old.



Yayoi Kusama, *Untitled* 1939, Pencil on paper, 25 x 22 cm

Here are some more self portraits that she has done:



(Self portraits from 2010, 2008, 1982, 1995)

Use the next couple of pages to create a self portrait in the style of Yayoi Kusama, then send us a photo to the home learning email.

When you are at home all the time, it is really important to look after yourself both mentally and physically. Here are some ideas of how you might do that:

Physical

Whilst you are out on a walk, why not try these great activities?

Framing Nature

You will need:

- Cereal box
- Scissors
- Camera

1. Cut out a cardboard frame from a cereal. Ask an adult to help with the centre!
2. On a walk or in the garden, use your frame to capture nature.
3. Take a photograph and create a nature collage!

EXTENSION

Why don't you draw or paint what you have captured in your frame?

Use your images to create a book about nature. Label each flower, plant or tree and add a description.

Start a project about cloud formations and use your frame to capture the different cloud formations.

Take time to notice and appreciate the beauty of nature around you.

@MrsBpriSTEM

Nature Bracelets

You will need:

- Tape of any variety - I prefer the wider, transparent parcel tape but any tape will do!



1. Cut tape so it fits loosely around the wrist.
2. Attach so the 'sticky' part of the tape is facing out.
3. Decorate and enjoy!

EXTENSION

Why don't you create a rainbow bracelet, hunting for something to include for each colour of the rainbow?



Use a wild flower or leaf identification chart to name the flowers and leaves you are attaching to your bracelet.

@MrsBpriSTEM

OUTDOOR COLOUR SCAVENGER HUNT

As the weather is so nice, why not get outdoors and find different colours in your garden or on a walk! 🌸



Mental

Why not have a go at some of these pencil and paper games with your family?

Close Your Eyes Drawing Game

Close your eyes and draw a picture. Choose something simple, such as a house, tree, or stick figure person. Those watching may think you are praying, meditating, or in deep concentration. All the while you are attempting to draw a familiar object from memory without looking at the paper.

Category Doodling Pen and Paper Game

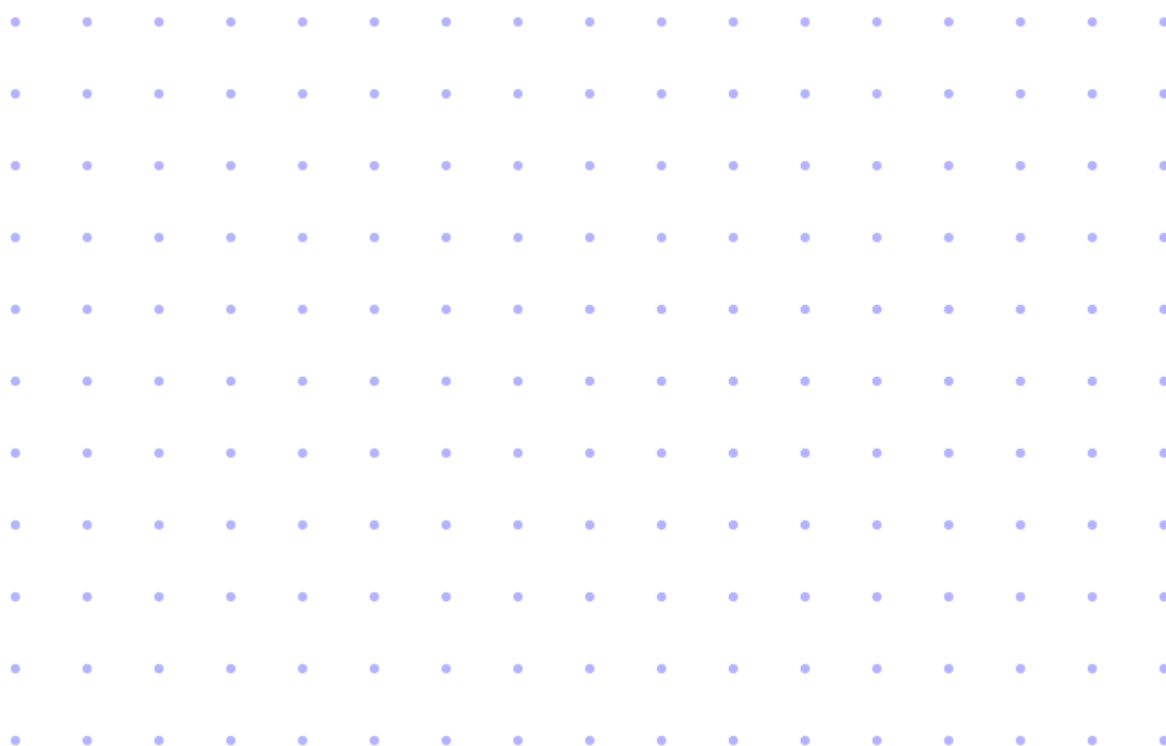
Choose a category of something that is simple to draw and see how many variations you can create. Examples are leaves, decorated balls or boxes, circles with designs, hearts, flowers, or drink glasses.

Tic-Tac-Toe

Probably the first and easiest pen and paper game learned by a child is Tic-Tac-Toe. Grids of two vertical and two horizontal lines are filled with either an X or O as players take turns. The goal is to have three marks in a row – horizontally, vertically, or diagonally – before your opponent. The player who goes first can have the advantage. Two experienced players often end the game in a draw. Tic-Tac-Toe teaches good sportsmanship and beginning reasoning to young children.

Dots and Boxes Pen and Paper Game

Begin with a grid of dots drawn on a piece of paper. You can choose what size grid you wish to use. A six-by-six grid [works well for younger children](#). More advanced players may wish to draw a much larger grid. Two or more players take turns with different colored pens or pencils drawing lines between dots. The goal is to complete a box while preventing the other player from doing so. When a block is completed by a player, they write their initials inside and draw another line. When all of the dots are connected, the person with the most completed blocks wins.





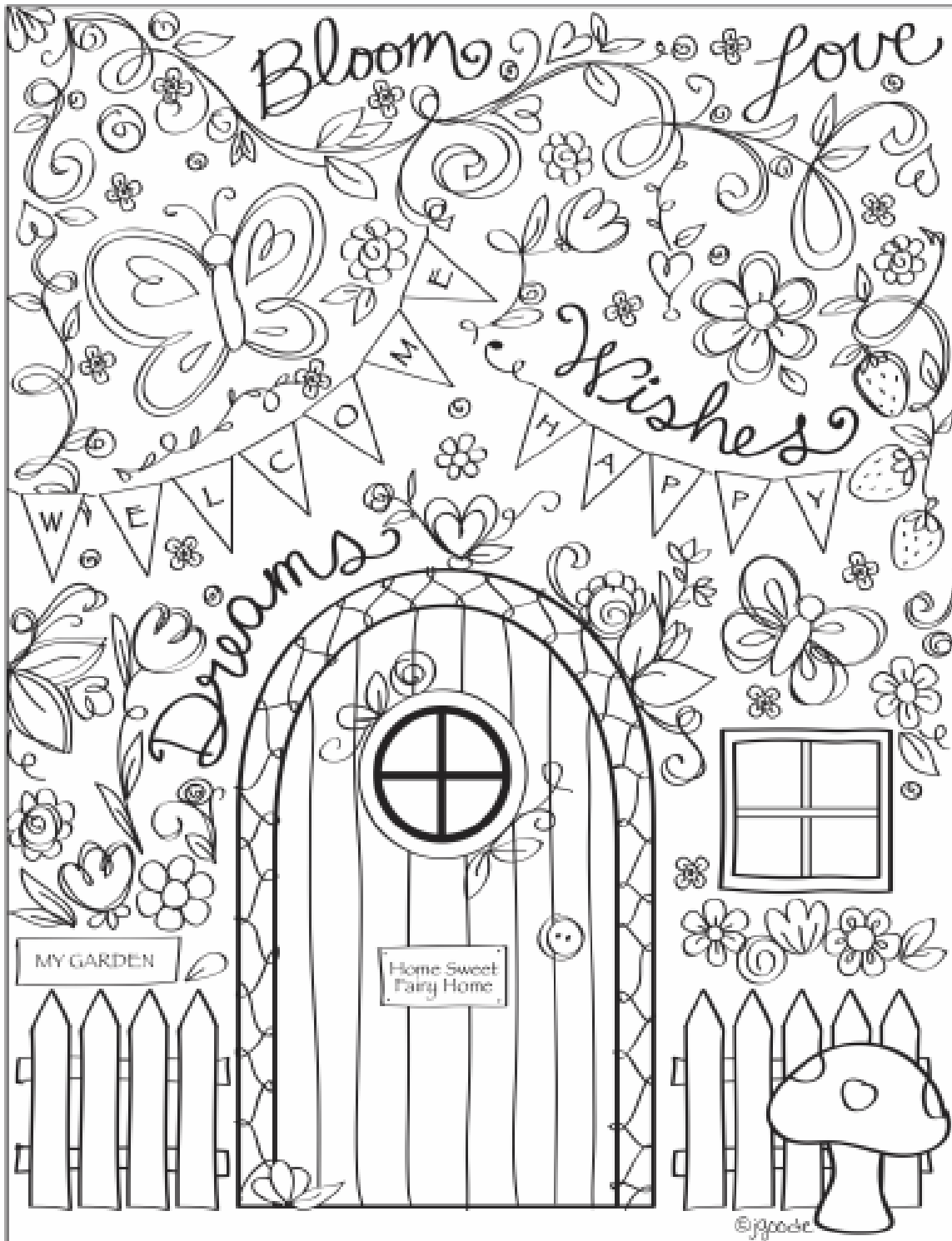
Battleship

You may know this as a boxed strategy game, but it is easily played with pen and paper. Players begin by drawing two grids with ten vertical and ten horizontal lines on two separate sheets of paper. The horizontal side is lettered and the vertical side numbered. On one sheet, each player draws rectangles representing a fleet of ships without letting the other player see their location. On the other grid, hits are marked with an X and misses with an O. The ships must take adjacent squares vertically, horizontally, or diagonally. Each player's fleet consists of the following:

- › 1 aircraft carrier covering five squares
- › 1 battleship covering four squares
- › 1 cruiser covering three squares
- › 2 destroyers covering two squares each
- › 2 submarines covering one square each

Players take turns firing a salvo of seven shots, calling out guessed locations of the other player's ships, example F6, G9, etc. An opponent must state the number of hits and the type of ship, but not which shots were hits and which misses. Once all the squares of a ship are discovered, a player must say, "You sank my battleship (cruiser, destroyer, etc.)." Each time a player loses a ship, the salvo is reduced by one shot. The goal is to sink all of an opponent's ships to win the game.

On the next few pages are some colouring sheets for you to do. Colour carefully, perhaps choosing a different colour for each section.







Guide to maths vocabulary

In the Year 4 National Curriculum, children are taught to use **column addition** and **column subtraction** to add and subtract 4-digit numbers (including decimal numbers in contexts such as money). The focus of the curriculum is that children will become 'masters' of this method and should be able to apply this method to a range of problems and situations. Therefore, the range of activities in this book will help your child develop their **fluency**, **reasoning** and **problem solving** when using **column addition** and **column subtraction**.

The Column Method

The column method of addition and subtraction is so called because it sets the numbers out into columns based on their place value, e.g. **Hundreds, Tens, Ones**, tenths etc. (**Note:** If your child isn't secure with place value, it is best to go over this before completing column addition and subtraction.) To begin this method, we always start by adding or subtracting the numbers in the right column and then work along to the left, adding or subtracting the numbers in that column.

When using column subtraction, the **largest number (whole)** is always placed above the **smaller number (part)**. Also, you must always subtract the digit below from the number above; this is sometimes a common misconception with children as they sometimes calculate the difference between the two numbers.

Borrowing vs Exchanging: During school, you were probably taught to 'borrow' from the next column if you couldn't subtract the bottom number from the top number in a column. However, the current term used is **exchanging** for this procedure.

Maths Vocabulary:

'**ones**' were known as units prior to the National Curriculum update in 2014.

A **calculation** is a way to determine an amount. Here, it involves addition and subtraction.

Base 10 equipment refers to a physical resource which represents numbers. The small cubes represent 'ones'; the rods represent 'tens' and are made up of 10 small cubes; the squares represent 'hundreds' and are made up of 10 rods; the large cubes represent 'thousands' and are made up of 10 squares.

Rounding is when a whole number or decimal number is changed so that it is simpler but still has a value close to what it was. Rounded numbers are easier to use, but not as accurate.

A **part-whole model** is a concept to show how numbers can be split into different parts. They can be used to represent numbers, as well as a wide variety of calculations. The concept follows the structure $\text{part} + \text{part} = \text{whole}$, but this may change depending on how many parts there are.

A **negative number** is a number less than zero. It can be represented on either a horizontal or vertical number line. A negative number is written with a minus sign in front of it. Example, -4

Shape vocabulary

'Quadrilateral' means four sides. 'Quad' means four and 'lateral' means sides. A quadrilateral is a 2D shape that is closed with four straight sides. Quadrilaterals have four vertices with interior angles that add up to 360°.

Guide to grammar vocabulary

Adult Guide to Conjunctions

In Years 3 and 4, children are taught to use a range of conjunctions to extend sentences. They should be able to use **CO-ORDINATING** and **SUBORDINATING** conjunctions fluently in independent writing to help engage the reader. This activity pack is a great way to help to consolidate and reinforce the use of conjunctions.

Conjunctions: Conjunctions are the 'glue' that hold together words and different parts of a sentence. For example, in the sentence, '*Sandra bought a new bag and she bought some new shoes*', the conjunction **and** joins together the two clauses (Sandra bought a new bag. She bought some new shoes.).

Co-ordinating conjunctions: Children will first begin to use co-ordinating conjunctions in Years 1 and 2. They are usually used to join two independent clauses together (small sentences which make sense on their own). The conjunctions taught are **and**, **so**, **but** and **or**. For example:

*June likes coffee **but** she does not like tea.*

In the sentence above, '*June likes coffee*' makes sense on its own. Equally, so does '*she does not like tea*'. However, when we join these two together using **but**, they make one compound sentence.

Subordinating conjunctions: In Years 3 and 4, children are taught to use a range of subordinating conjunctions to extend their sentences such as **when**, **because**, **if**, **unless**, **although** and **while**. These are the first words within a subordinate clause (a sentence which doesn't make sense on its own), which join it to the main clause (the sentence which can make sense on its own). For example:

*Peter ate his dinner quickly **because** he was hungry.*

'*Peter ate his dinner quickly*' is the main clause because it makes sense on its own. However, '*because he was hungry*' is not a sentence which makes sense on its own. This clause only makes sense once it is joined to the independent clause, '*Peter ate his dinner quickly.*'

Place Value of 4-Digit Numbers (page 2)

1.

| Clue | 4-digit Number |
|--|----------------|
| The number has 2 thousands, 4 hundreds, 8 tens and 3 ones. | 2,483 |
| The number has 9 thousands, 3 hundreds, 1 ten and 7 ones. | 9,317 |
| The number has 8 thousands, 7 tens and 2 ones. | 8,072 |
| The number has 6 thousands, 3 hundreds and 5 ones. | 6,305 |

2. A = Correct. B = False. The missing number is 0.
 3. Theo has made two mistakes. His first mistake is that he has created the number 4,037 on the place value chart, not 4,307. His second mistake is that if he adds 2 more hundreds to the number on the place value chart, it will make 4,237, not 6,307. Theo has added 2 more thousands, not 2 more hundreds.

Find 1s, 10s, 100s and 1,000s More or Less (page 3)

- 1,702
- 1,592; 1,892; 2,192; 2,492; 2,792; 3,092
- A. 9,005; B. 4,069; C. 4,005
- A. 5,818; B. 3,955; C. 1,324
- 2,365
- 6,833, 6,803; The sequence is decreasing in steps of 30 because $6,893 - 30 = 6,863$.
- 3,399. Kelly has added 6,000, not 60.

Round to the Nearest 100 (page 4)

- Cindy is correct.
- A – Six hundred and forty-two, B – 389
- Taylor is incorrect. The number 755 has 5 tens, therefore it needs to be rounded up which would make the answer 800.

Negative Numbers (page 5)

- A. -22°C ; B. -2°C ; C. 8°C ; D. -3°C ; E. -25°C
- 8 metres
- She is correct. 25, 20, 15, 10, 5, 0, -5, -10

Subtraction

1 Kim has made a number using base 10

| Th | H | T | O |
|-----|----|---|---|
| 100 | 60 | 0 | 4 |

a) Subtract 8 from Kim's number.

1,694

b) Explain the method you used.

Exchange 1 hundred for 10 tens then 1 ten for 10 ones.

c) Subtract 20 from Kim's number.

1,682

d) Subtract 900 from Kim's number.

802

e) Complete the subtractions.

$1,702 - 28 = 1,674$

$1,702 - 928 = 774$

2 Use the place value chart to complete the subtractions.

| H | T | O |
|----------|--------|------|
| 100, 100 | 10, 10 | 1, 1 |
| 100, 100 | 10, 10 | 1, 1 |
| 100 | 10, 10 | 1, 1 |

a) $564 - 354 = 210$ c) $564 - 365 = 199$

b) $564 - 355 = 209$

Look at your calculations in parts a), b) and c).
What is the same? What is different?

3 Use the place value chart to complete the subtractions.

| Th | H | T | O |
|--------------|----------|--------|------|
| 1,000, 1,000 | 100, 100 | 10, 10 | 1, 1 |
| 1,000, 1,000 | 100, 100 | 10 | 1, 1 |
| 1,000 | 100, 100 | 10 | 1 |

a) $5,435 - 2,036 = 3,399$

b) $5,436 - 2,036 = 3,400$

c) $5,437 - 2,036 = 3,401$

Look at your calculations in parts a), b) and c).
What is the same? What is different?

4 Complete the calculations.

| Th | H | T | O |
|----|---|---|---|
| 7 | 3 | 2 | 5 |
| - | 2 | 4 | 0 |
| | 4 | 9 | 1 |

| Th | H | T | O |
|----|---|---|---|
| 7 | 1 | 0 | 2 |
| - | | 3 | 9 |
| | 6 | 7 | 0 |

| Th | H | T | O |
|----|---|---|---|
| 5 | 6 | 3 | 4 |
| - | 2 | 7 | 4 |
| | 2 | 8 | 8 |

| Th | H | T | O |
|----|---|---|---|
| 5 | 0 | 0 | 0 |
| - | 1 | 7 | 3 |
| | 3 | 2 | 6 |

5 A jug contains 1,500 ml of juice.



The juice is poured into 2 glasses.
Each glass holds 258 ml of juice.
How much juice is left in the jug?



984ml

6 Work out the missing digits.

| Th | H | T | O |
|----|---|---|---|
| 7 | 1 | 3 | 4 |
| - | 1 | 2 | 3 |
| | 5 | 9 | 5 |

| Th | H | T | O |
|----|---|---|---|
| 4 | 0 | 8 | 3 |
| - | | 2 | 3 |
| | 3 | 8 | 4 |

7 Arrange all the digit cards to make a possible subtraction for each description.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|

a) There are 2 exchanges.
The answer is less than 2,000
E.g. $\begin{array}{r} 2353 \\ - 1064 \\ \hline \end{array}$


b) There are 2 exchanges.
The answer is greater than 4,000
E.g. $\begin{array}{r} 7640 \\ - 2351 \\ \hline \end{array}$

c) There are 3 exchanges.
E.g. $\begin{array}{r} 7420 \\ - 6531 \\ \hline \end{array}$


Perimeter

Stage 1


1)




$4\text{cm} + 4\text{cm} + 2\text{cm} + 2\text{cm} = 12\text{cm}$



$8\text{m} + 8\text{m} + 5\text{m} + 5\text{m} = 26\text{m}$




$4\text{cm} + 4\text{cm} + 3\text{cm} + 3\text{cm} = 14\text{cm}$




$5\text{m} + 5\text{m} + 5\text{m} + 5\text{m} = 20\text{m}$


2)



$7\text{cm} + 2\text{cm} = 9\text{cm}$
 $9\text{cm} \times 2 = 18\text{cm}$




$8\text{m} + 3\text{m} = 11\text{m}$
 $11\text{m} \times 2 = 22\text{m}$



$20\text{cm} + 12\text{cm} = 32\text{cm}$
 $32\text{cm} \times 2 = 64\text{cm}$


Stage 2

1)




$4\text{cm} \times 2 = 8\text{cm}$

Sami has only doubled the length and not the width as well. The answer should be 14cm.



$2 \times 8 = 16\text{m}$

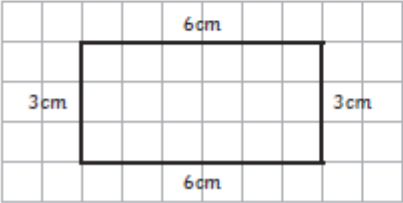
Sami has multiplied the length and width together rather than adding all the sides. The answer should be 20m.



$10\text{cm} + 5\text{cm} = 15\text{cm}$
 $15\text{cm} \times 2 = 30\text{cm}$

This is correct. Sami has added the length and the width together and multiplied by 2.


2)



Stage 3

1) *The length and width must total 18 metres, as this is half of the perimeter.*
Possible measurements are: 1m by 17m, 2m by 16m, 3m by 15m, 4m by 14m, 5m by 13m, 6m by 12m, 7m by 11m, 8m by 10m and 9m by 9m.
Look for children beginning to work systematically.

2) *The classroom could have the following dimensions:*
9m by 8m (perimeter is 34m)
8m by 7m (perimeter is 30m)
7m by 6m (perimeter is 26m)
6m by 5m (perimeter is 22m)



English

I have never liked heights, **so** I didn't go to the top.

Make a sandwich, **unless** you're eating out.

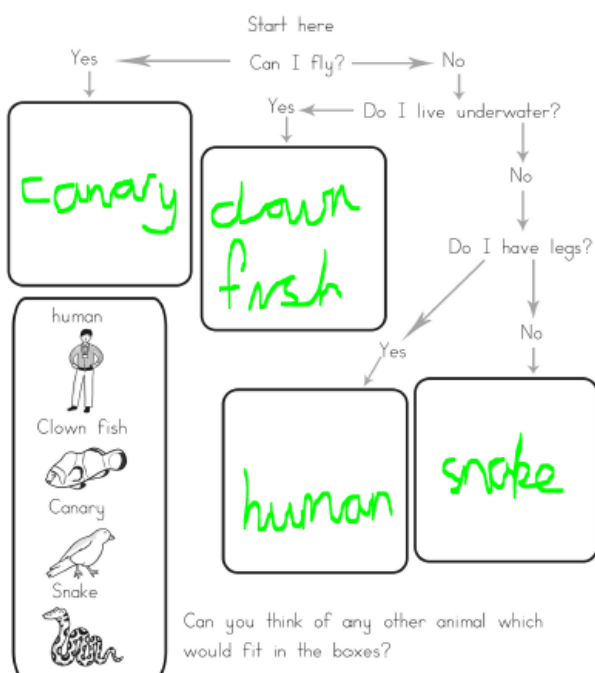
He still shouted at me **and** I cried.

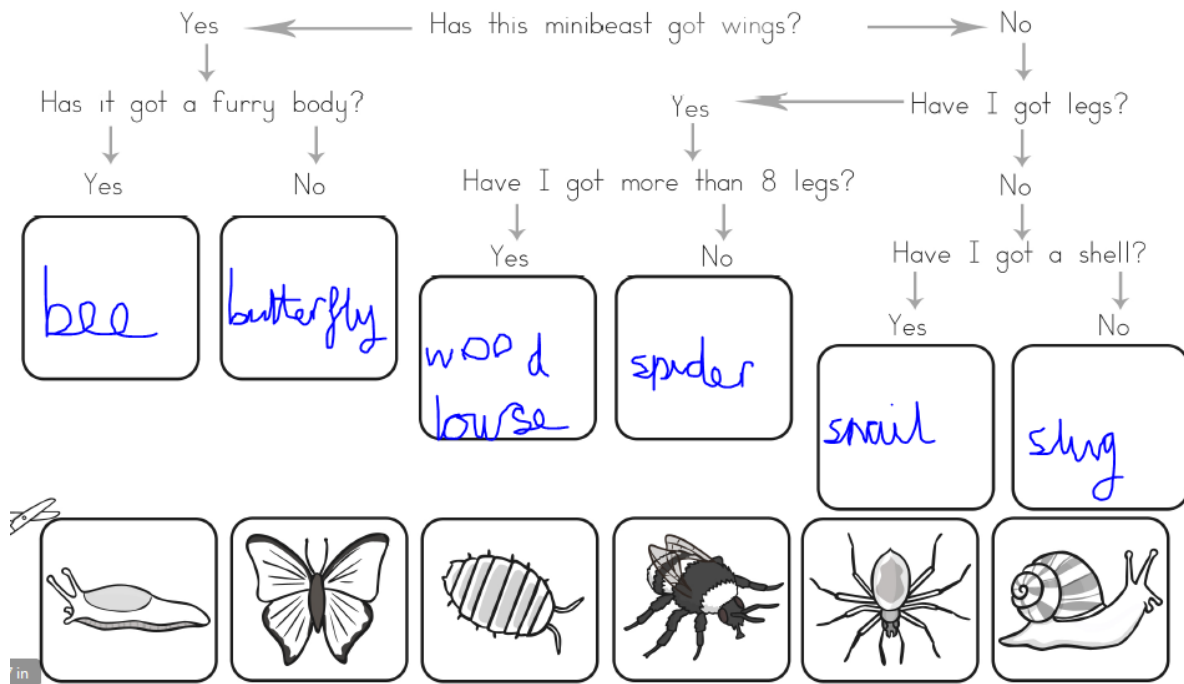
Whether you like it or not, I'm going to the cinema.

They were going to build a road, **but** people didn't want them to.

I'll do it, **because** I'm going there anyway.

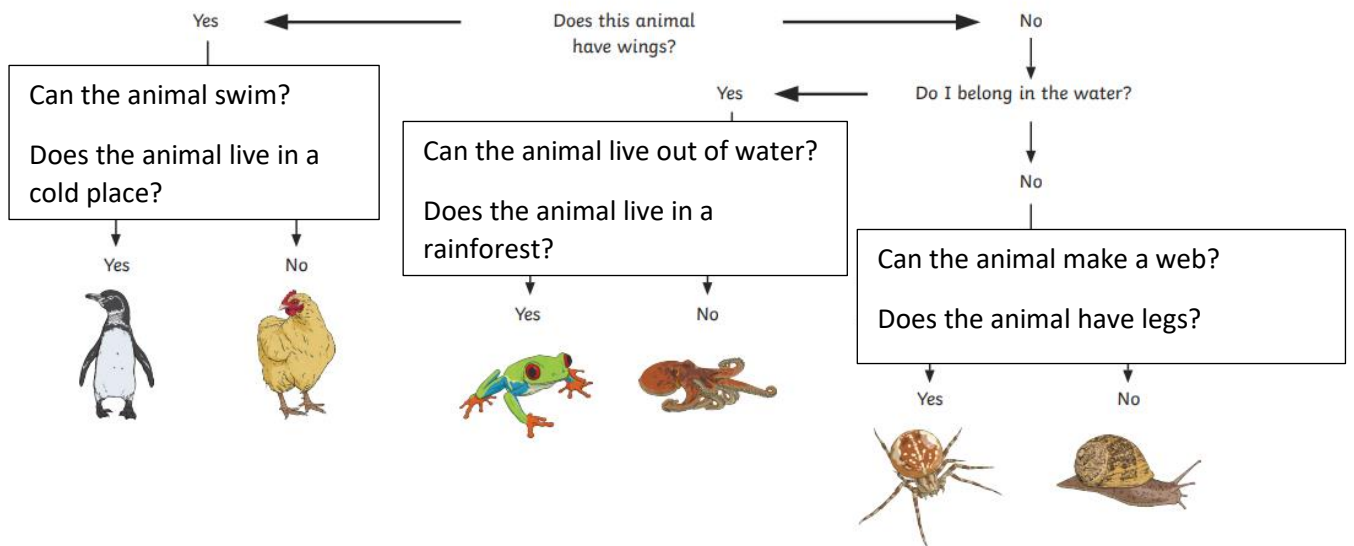
Science





For this next flow chart, there could be different answers. Just make sure that the question they give matches with the answer. I have given some example questions.

Complete this flow chart

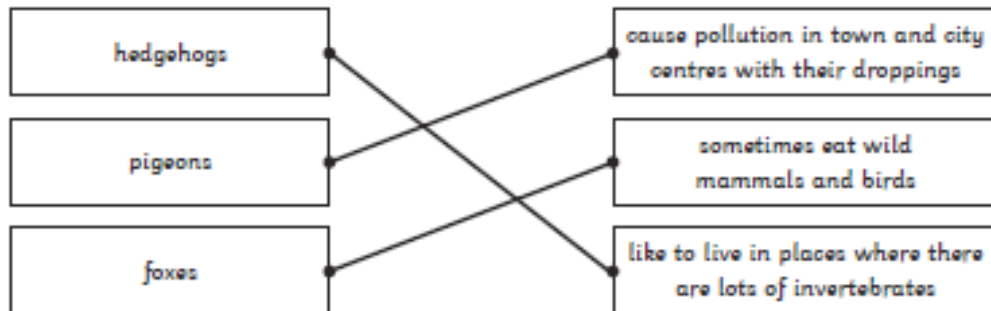


Doorstep Wildlife

1. Which animal is the most common wild carnivore found in the UK? Tick one.

- hedgehog
- pigeon
- fox
- badger

2. Draw **three** lines to match the urban animal to the correct fact.



3. In the UK, how many hedgehogs are in the wild now?
In the UK, there about one million hedgehogs in the wild.

4. Find and copy one word from the **Foxes** section of the text which means the same as **changed**.
adapted brilliantly

5. Fill in the missing words in this sentence.
 Their **cooing** calls are a very familiar sound within most **cities** and town centres.

6. Why do councils want to control the number of pigeons in towns and cities?
Pupils' own responses, such as: Pigeons are thought of as vermin by many people so councils want to control their numbers so they don't get too high.

David Walliams

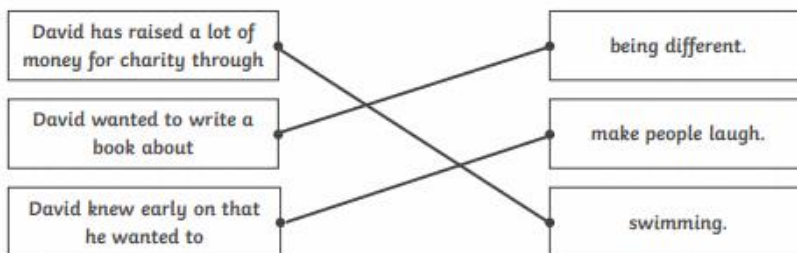
1. What did David like doing as a child? Tick two.

- running
 dressing up
 writing
 acting

2. When was 'The Boy in the Dress' published? Tick one.

- 2004
 2006
 2008
 2011

3. Draw lines to complete the sentences about David.



4. Number the events below to show the order in which they happened in David's life.

- 4 David had a successful TV career.
 1 David was born the son of Peter and Kathleen Williams.
 5 David published 'The Boy in the Dress'.
 3 David acted in his first play.
 2 David enjoyed dressing up with his sister.

5. Fill in the missing words in this sentence.

David raised **two** million pounds for charity in 2011 and **one** million pounds for charity in 2006.