



# Y4

# Remote Learning

# ANSWER PACK

*25<sup>th</sup> - 29<sup>th</sup> January  
2021*



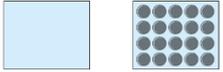
# Maths answers

## Lesson 1

**What is area?**

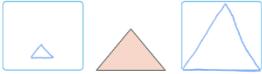
1 a) Work with a partner.  
Use 4 sticky notes to make as many different rectilinear shapes as you can.  
How many different shapes did you make? **5**  
b) All of the shapes that you made have the same area.  
Explain how you know that this is correct.

2 Amir covers a rectangle with some counters.



a) Amir thinks the area of the rectangle is exactly 20 counters.  
Is Amir correct? **NO**  
b) Explain why counters are not the best way to measure area.  
They are round so don't fill the space.

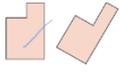
3 Eva draws this shape.



E.g. **a)** To the left, draw a triangle with a smaller area.  
**b)** To the right, draw a triangle with a greater area.

4 For each pair of shapes, tick the shape with the greater area.

a)  **b)** 

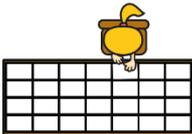
c) 

5 A longer object will always have a greater area than a shorter object.

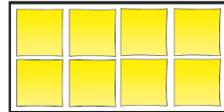
Do you agree with Teddy? **NO**  
Draw a picture to support your answer.



E.g. **6** Eva is measuring the area of the tabletop. She has covered the table with exactly 28 sheets of paper.



She covers one sheet of paper with sticky notes.



What is the area of the tabletop in sticky notes?  
**28** sticky notes

7 Kim thinks the area of the rectangle is 12 squares.

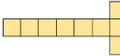


Is Kim correct? **NO**  
How do you know?

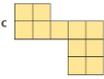
## Lesson 2

**Counting squares**

1 Count the squares in each shape to find the area.

A  The area is **9** squares.

B  The area is **10** squares.

C  The area is **11** squares.

Which shape has the greatest area? **C**

2 What is the area of the shaded part of the shape?



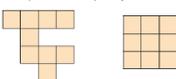
The area is **4** squares.

3 Here is a kitchen tile.



a) What area of the tile is blue? **4** squares  
b) What area of the tile is white? **4** squares  
c) What is the total area of the tile? **10** squares

4 These two shapes are made up of squares of the same size.



Jack: These two shapes have the same area.  
Rosie: The first shape is bigger as it takes up more space.

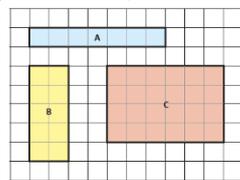
Who is correct? **Jack**  
Explain how you know.  
They both have an area of 9 squares.

5 Here is a rectangle.



a) The rectangle has **3** rows and **4** columns.  
b) What is the area of the rectangle? **12** squares  
c) How did you work out the area?

6 Find the area of each rectangle.



A = **7** squares B = **10** squares C = **24** squares

7 Nijah and Eva are making shapes. They each use 6 squares.

Nijah's shape  Eva's shape 

The area of Nijah's shape is equal to the area of Eva's shape.  
Is this true or false? **False**  
How do you know?  
They are not made using the same size shapes.

8 What is the area of each shape?



area = **7** squares area = **4** squares

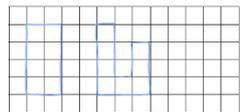
## Lesson 3

**Making shapes**

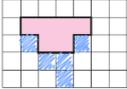
1 Draw a shape with the given area.

a) area = 7 squares  **b)** area = 13 squares 

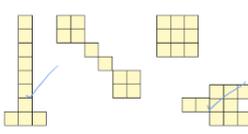
2 a) Draw two different shapes, each with an area of 8 squares.



3 Shade more squares to make the area 11 squares.

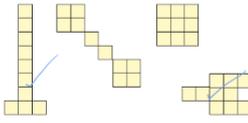


4 Amir has created a shape.



My shape has an area of 10 squares and is rectilinear.

Tick the shapes that Amir could have made.

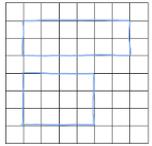


5 I cannot make a large square using an odd number of smaller squares.

Do you agree with Whitney? **NO**  
Draw a picture to support your answer.



6 Draw two different rectangles, each with an area of 12 squares.



7 a) Add squares to this shape to make it into a square.



b) What is the area of the square you have made? **16** squares

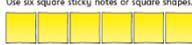
c) How could you make a larger square?  
How many more squares do you need to add? Show your working.  
**9**

8 Dara and Tommy have drawn rectilinear shapes.



Tommy says he has made a different shape with the same area.  
Do you agree with Tommy? **NO**  
Explain your answer.

9 Use six square sticky notes or square shapes.



Make as many different rectilinear shapes with the squares as you can.  
Draw some of your shapes.



Compare answers with a partner.



## Lesson 4

**Comparing area**

1 a) Tick the shape with the larger area.

b) Tick the shape with the smaller area.

2 Write <, > or = to compare the area of the shapes.

a)  $<$

b)  $>$

3 Mo draws two shapes.

A B

Shape B must have a smaller area than shape A, because it is shorter and thinner than shape A.

Do you agree with Mo? No  
Explain your reasoning.

4 Here is a shape.

a) What is the area of this shape? 18 squares

b) Draw a different shape with an area that is 2 squares larger.

5 Put these letter shapes in order of size. Start with the shape with the smallest area.

C      H      O

6 Here are plans of two school fields. Each has a playing field and a vegetable patch.

**High Street School** **Main Street School**

a) What is the difference in the area of the playing fields?  
The difference in area of the playing fields is 2 squares.

b) What is the difference in the area of the vegetable patches?  
The difference in area of the vegetable patches is 2 squares.

c) High Street School doubles the size of its vegetable patch. Main Street School adds 1 square to its vegetable patch. Which school now has the larger vegetable patch?  
Show your working.  
High Street School now has the larger vegetable patch.

## Lesson 5

question	answer	marks
1	376	1
2	572	1
3	126	1
4	398	1
5	272	1
6	18	1
7	$\frac{3}{5}$	1
8	$\frac{4}{8}$ or $\frac{1}{2}$	1
9	1476	1
10	892	1

11	9343	1
12	4656	1
13	63	1
14	120	1
15	2810	1
16	4592	1
17	$\frac{5}{5}$ or 1	1
18	$\frac{12}{15}$ or $\frac{4}{5}$	1
19	5.1	1
20	7.8	1
21	0.56	1

question	answer	marks
22	8.7	1
23	6	1
24	7.46	1
		Total 24

## English Answers

### Lesson 1

#### Billy McBone - Poetry

**Key vocabulary:** rhyming couplet, mind, burgle, wandering

#### Retrieval

- 1.) Where did Billy McBone mostly keep his mind? Under his hat
- 2.) How did the teachers search for Billy's mind? Tried test after test

#### Inference

- 3.) Do you think Billy McBone would be perceived as a good pupil? Use evidence from the poem to support your answer. No, the teachers thought he couldn't be taught, they couldn't work out where his mind was, when asked a question he just shuffled and stared at the floor, the teachers tried in vain to work out his brain.

#### Vocabulary

- 4.) 'Tried to burgle his brain'. What does the word 'burgle' mean in this line? To take something without permission, to enter and remove in a criminal way.
- 5) Find and copy the phrase in the final stanza which tells us that no matter what the teachers did, they could not burgle Billy's brain. in vain!
- 6) Use the above phrase in a sentence of your own.  
Various answer using the phrase in vain in context

## Lesson 2

- Who did Tim Peake stay on the ISS with?  
**Yuri Malenchenko and Timothy Kopra**
- Explain fully how Tim prepared for his mission.  
Pupil's own response, such as: Tim prepared for his mission by learning to speak Russian, spending 12 days under the sea and taking part in a winter survival expedition.
- Why do you think Tim ran the equivalent of the London Marathon on his treadmill?  
Pupil's own response, such as: I think that Tim ran the equivalent of the London Marathon in order to keep fit while he was on the ISS. It says in the text that the astronaut's legs were weak when they returned to Earth so it was important that the astronauts kept as fit as possible.
- What did the astronauts return to Earth in?  
**a Soyuz capsule**
- In which town did the astronauts land? Tick one.
  - Kazakhstan
  - Cologne
  - Zhezkazgan
  - London
- Find and copy a word which shows that Tim's body is changing now that he is back on Earth.  
**adjusting**
- Why were the astronauts carried from the capsule? Tick one.
  - Their leg muscles were too weak.
  - Their spacesuits were too heavy.
  - They couldn't be bothered to walk.
  - They weren't feeling well.
- Why do you think Tim dedicated his CMG to the entire team?  
Pupil's own response, such as: I think that Tim dedicated his CMG to his entire team because he said in the news report that he is part of a complex team who are all in pursuit of exploring the solar system for the benefit of people on Earth



## Lesson 3:

Feature	Example from the text
Name of the newspaper	Daily News
Headline	Back to Earth with a bump!
Introductory paragraph - What?	Time Peake returned home from the International Space Station.
Introductory paragraph - When?	Last week.
Introductory paragraph - Who?	Tim Peake.
Introductory paragraph - Why?	He returned home from the space station after a six month stay aboard.
Introductory paragraph - Where?	From ISS to London.

Caption with a picture	Landing with a bump! Tim Peake lands safely in Kazakhstan.
Facts about the main event	Various facts including; launched into space on the 15 <sup>th</sup> December 2015, tested out new technology in space...
Third person	Tim
Past tense	E.g. Last week, returned, affected...
Quotes written as direct speech	'The smells of Earth are so strong and it's wonderful to be back in the fresh air.'
Reported speech (indirect speech)	Peake commented on how he'd missed family and friends, and even the rain.
Paragraphs	Yes - Last week... The men were launched... During their space mission...
Chronological order	Yes. Last week they returned, they were launched into space on the 15 <sup>th</sup> December, during the mission... the touch down was bumpy... Time later flew from Kazakhstan to the headquarters... In a recent press conference... His service has earned him as honour from the Queen.  This show how it follows a chronological order.

## English Answers – Lesson 3

**Snow** - The **headline** is shared verbally and on the screen. **What** – There has been lots of snow and some friends have made a 15ft snowman. **When** – 'As parts of the UK have snow our friends in the USA have also had quite a lot.' No specific time given but this sentence suggests 'now'. **Who** – Friends in the USA. **Why** – To share happiness - They have made a 15ft snowman because it has snowed. A **video** with a verbal explanation of the snowman is shown rather than a picture and a caption. De'Graft is giving **facts** about the snowman including '15 ft'. **Past tense** – A group of friends started to build the snowman... **No speech or paragraphs**. Explained in chronological order.

**Dogs sledge race** - The **headline** is shared verbally and on the screen. **What** – A dog sledge race. **When** - No specific time given. **Who** – Owners and their dogs. **Why** – To share happiness - A race - It's something the dogs enjoy. A **video** with a verbal explanation of the race is explained verbally and the race is shown rather than a picture and a caption. De'Graft is giving **facts** about the dogs and how they wear shoes. **No speech or paragraphs**. Explained in chronological order.

**Dog & Cat** - The **headline** is shared verbally and on the screen. **What** – A dog in Greece has decided to become friends with some cats. **When** – No specific time given. **Who** – A dog and some cats in Greece. **Why** – To share happiness – A dog has decided to become friends with some cats. A **video** with a verbal explanation of the dog becoming friends with the cats is shown rather than a picture and a caption. De'Graft is giving **facts** about the unusual friendship between this dog and cats. **No speech or paragraphs**. Explained in chronological order.

*Various explanation answers could include;* This shows lots of similarities between both news broadcasts and written newspaper reports. They both have the same intention of informing their audiences of specific news and information through following a similar guideline of key features to include.



## English Answers – Lesson 4

- Task 1** – 1. It was a perilous climb. The rocks were slippery with snow (page 31). **E**
2. Hiccup goes into the cave first because HE is the son of the Chief... (page 32). **F**
3. The cavern was full of more dragons than Hiccup could ever have imagined existed (page 33). **D**
4. Their eyes were popping with excitement as they walked through the cave, hands over their noses to keep out the revolting smell, looking for the biggest dragon they could find that would fit in their basket (page 34). **C**
5. Hiccup found one that was about the right size and fairly cool to the touch and manoeuvred it into his basket as quickly and carefully as he could (page 37). **A**
6. 'R-R-R-U-U-U-U-N-N-N!' shouted Hiccup, grabbing Fishlegs's arm and dragging him away. The boys ran for the exit tunnel (page 40). **B**

### Why is chronological order a key feature of a newspaper report?

**Various answers could include;** The reader finds out what happens in the 'correct' order and this can lead the reader through the events clearly.

## WANTED POSTER IDEAS –

**Name:** Hiccup Horrendous Haddock the Third.

**Crime:** Hiccup has stolen a dragon from the dragon nursery based in the isle of Berk. He has climbed perilously to the cave where the dragons lay fast asleep before walking carefully through the cavern. Hiccup has chosen a dragon that would fit in his basket and sneakily stole this dragon whilst it lay asleep harmlessly. He has committed this crime as a part of his Dragon Initiation Test. This happened in the early hours of Monday morning.

**Description:** A young, ordinary boy who was no taller than an average dustbin has a face as blank as a plain piece of paper. Hidden under his helmet you will find bright, red, luxurious hair which stands up vertically making you think he has received an electric shock. His freckled filled face blends easily into crowds because of his average look. Hiccup is skinny like a skeleton and as quiet as a mouse. Hiccup is known for following the crowd although his role in society is to follow in his Fathers footsteps and lead the crowd.

**Last seen:** Early Monday morning by his fellow Viking friends.

**Reward:** £300,000.

## Lesson 5

### Witness ideas-

1. **Where was the witness at the time?** On the isle of Berk looking at the cave.
2. **What was the witness doing before the incident?** Going out for their early morning walk.
3. **What time did they notice something unusual?** Around 6am.
4. **What did the witness see?** A group of Vikings going into the cave filled with dragons and stealing a dragon.
5. **What did the witness do?** The witness shouted to them telling them to stop.
6. **A clear description of anyone the witness saw and a picture of them.**  
A young, ordinary boy who was no taller than an average dustbin has a face as blank as a plain piece of paper. Hidden under his helmet you will find bright, red, luxurious hair which stands up vertically making you think he has received an electric shock. His freckled filled face blends easily into crowds because of his average look. Hiccup is skinny like a skeleton and as quiet as a mouse. Hiccup is known for following the crowd although his role in society is to follow in his Fathers footsteps and lead the crowd.

**How can a witness help with solving a crime? Various answers. Could include;**

- They can help with identifying the criminal.
- They can help uncover the truth.
- They can explain the crime in chronological order.

**How can a witness hinder with solving a crime? Various answers. Could include;**

- If they tell a lie.
- If they say the criminal/culprit looks differently to how they actually look.



## Reading for productivity Answers

### DT answers

#### Retrieval

- 1.) What is a linkage? A linkage is a mechanism made by connecting together levers.
- 2.) How do you make a linkage? To connect the levers together to make a linkage you can use any type of fastening which allows free movement, for example screws, pins, paper fasteners, pop rivets etc.
- 3.) What is the difference between a lever and linkage? A linkage connects levers together whereas a lever is a separate part of the linkage that rotates on a point.

#### Inference

- 4.) Why and how do you think levers were used throughout ancient times? To move objects including rocks and food.

#### Vocabulary

- 5.) What is a 'fulcrum'? A fixed point that a lever rotates around.

### Geography answers

#### Retrieval

1. List two types of vegetation belts. Forest, grassland, tundra, desert and ice sheet.
2. Which vegetation belt has little or no vegetation? Ice sheets.

#### Inference

3. Why do you think forests are found the most all over the world? Any acceptable answer.

#### Vocabulary

4. What do you think the word 'vegetation' means? An area of plants/soils/habitats
5. Find and copy a word that means the same as rainfall. Precipitation.

### PSHCE answers

#### Reading for Productivity – PSHE – Mental health

#### Retrieval

1. What will you overcome by being brave? Challenges
2. Who is the patron of Place2Be? The Duchess of Cambridge
3. True or false?

	True	False
If you need to talk about your mental health, you should talk to an adult whom you trust.	★	
Place2Be started Children's Mental Health Week in 2014.	★	
Children's Mental Health Week is a celebration of intelligence.		★
Mental health means how people feel about different things in their life, such as relationships, health, work and themselves.	★	

#### Inference

3. Which helpful tip do you find the most helpful and why? Various answers linked to the links and explaining how they help you.

#### Vocabulary

4. Find and copy a word that means 'across the country'. Nationwide
5. Write a synonym for the word 'improve'. Various answers; better, boost, upgrade, enhance.
6. Write a couple of sentences using your answers to question 4 and 5. Various answers.

### Spanish answers

#### Retrieval

1. Which festivals does the text mention that happen in the Spring? La Feria de Abril and Las Fallas.
2. When does the Tomatina take place? At the end of August.
3. Which festival is considered to be the second most famous carnival queen? The Carnival of Santa Cruz de Tenerife.

### Science answers

#### Retrieval

1. Which materials are magnetic? Iron, nickel, cobalt, steel.
2. What happens if the same pole is placed next to each other? They will repel – push away from each other.
3. Which of the following statements are true?
  - A. Magnets have a magnetic north pole and a magnetic south pole.
  - B. Gold is magnetic.
  - C. The magnetic field around Earth does not keep us safe from space radiation and particles.
  - D. Some objects are not affected by a magnet.

#### Inference

4. Magnetic fields cannot be seen by the human eye but we can tell they are there by what happens to objects when near the magnet. Explain what this means. Magnets can attract (draw closer) and repel (push away) objects and you can see these movements.

#### Vocabulary

4. Find and copy a word that means 'a course along which someone or something moves'. Direction.
5. What is meant by the word repel? Drive or force (an attack or attacker) back away.
6. Write a synonym for the word 'same'. Various answers; identical, duplicate, alike, clone.

#### Deepen the Moment

Which is your favourite festival that we celebrate in Britain and why?

4. Find and copy a word that means 'known about by many people'. Famous.
5. What is meant by the word invent? To create or design something.
6. Write a synonym for the word 'battle'. War, fight, clash, combat, conflict.