Year 2 English Home Learning

Week beginning 29th June 2020

Introduction.

Each week you will receive a set of English tasks. You should aim to complete one each day. Spending about 30 minutes on reading, 45 minutes on writing and at least 20 minutes on grammar and spelling.

It is fine for you to ask for help from parents, siblings or your teacher through teams.

I have carefully read and thought about the book.

I have shared my opinions with others and listened to theirs.

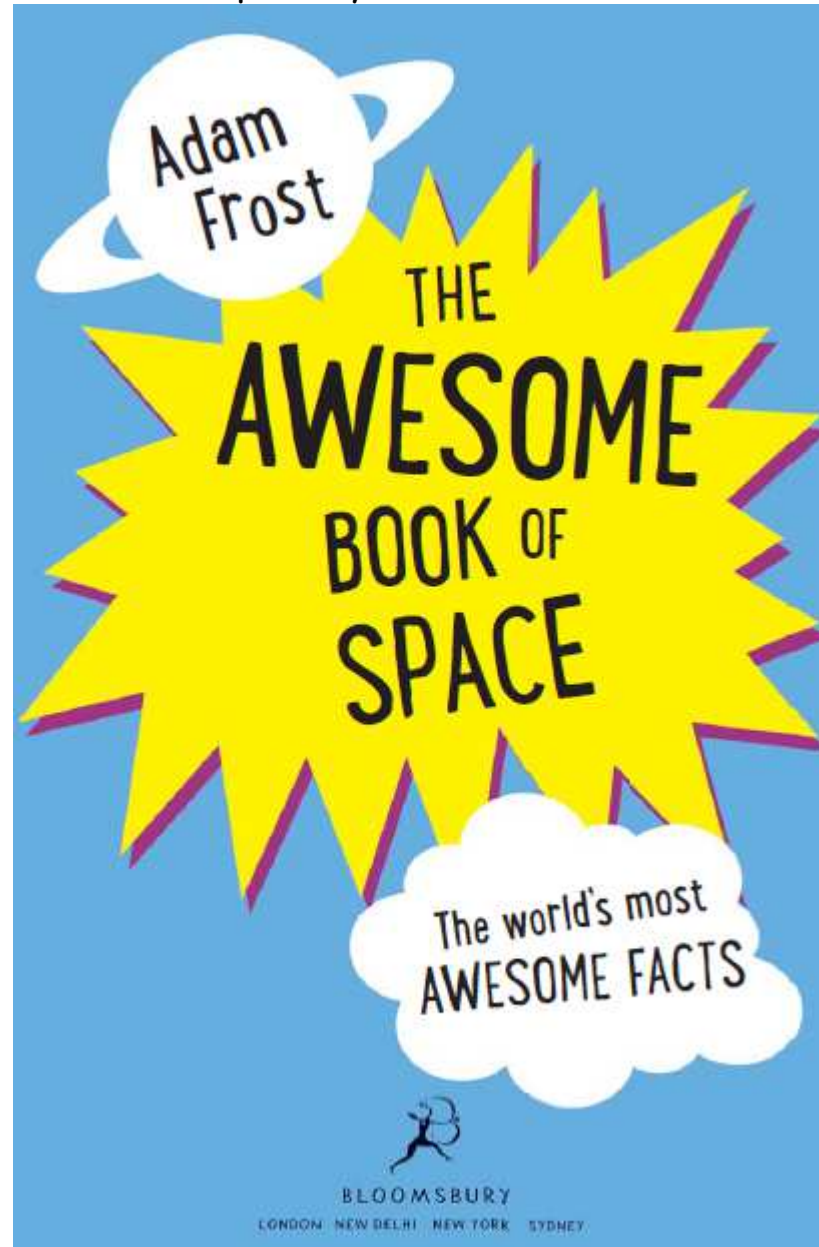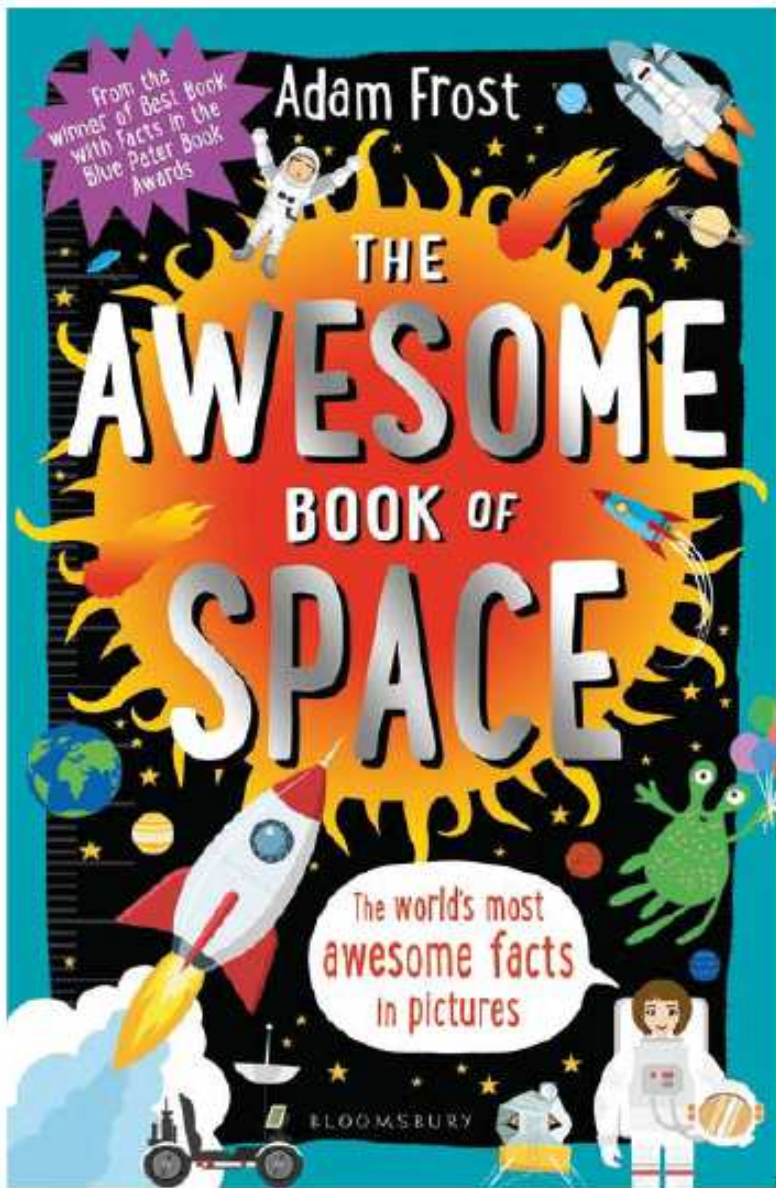**I have read and answered the grammar questions carefully.**

I have practised the spellings and handwriting activities.

Colour the stars when you think you have achieved this.

If you love reading and writing and want more of a challenge you can keep writing stories based on your own ideas or other books you have read.

The Awesome Book of Space by Adam Frost

LIFT OFF!

This is Arthur the Alien. He's stuck on Earth and wants to go home. Fortunately he's come up with a cunning plan involving helium balloons.

I ♥ space

Sorry, got to fly!

KEY

⬤ = 100 balloons

Arthur weighs the same as an average nine-year-old (28.6 kg). He needs around 2,043 helium balloons to lift him into the sky*.
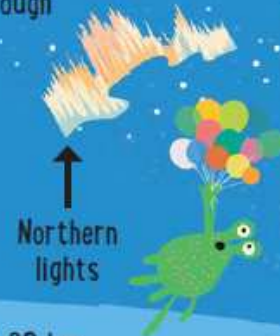
*An average helium balloon can lift 14 g. To work out how many helium balloons you'd need to lift YOU, divide your weight in GRAMS by 14.

UP IN THE AIR

What might happen to Arthur as he rises through the sky? Start at the bottom and read UP!

THERMOSPHERE 80–1,000 km
At 2,000°C, temperatures are hotter than an oven here. But because the air is so thin, Arthur would feel freezing cold.

Northern lights

MESOSPHERE 50–80 km
Arthur's balloons would probably have burst by now. The highest a helium balloon has ever reached is 53 km. It's also –90°C here. That's colder than the South Pole!

Meteors

STRATOSPHERE 12–50 km
Air pressure would be so low here that Arthur would need a special pressure suit to stop the fluids in his body from boiling.
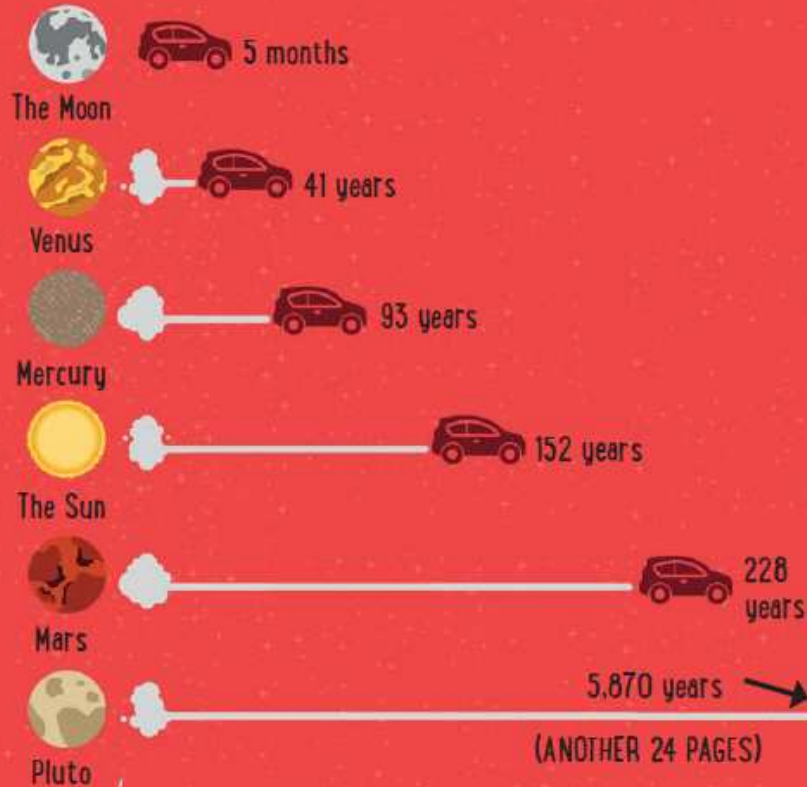
Weather balloon

TROPOSPHERE 0–12 km
The temperature would drop to about –57°C. Arthur would also need to breathe through an oxygen mask because oxygen levels would fall from 21% to 4%.

HYPER DRIVE

What if you could give Arthur a lift and just DRIVE him into space? How long would it take to get to different places?*

The Moon — 5 months

Venus — 41 years

Mercury — 93 years

The Sun — 152 years

Mars — 228 years

Pluto — 5,870 years → (ANOTHER 24 PAGES)

The fastest manned rocket ever – Apollo 10 – went at 25,000 mph. At THAT speed, you'd reach Mars in about 8 months and Pluto in about 16 years.

*Assuming you were going at 70 mph. And someone was driving the whole time. (No stops for a wee or buying crisps.)

FREE FALL

Uh-oh! Arthur's balloons have burst.
Luckily we've borrowed Luke Aikins' giant net.

WHO IS LUKE AIKINS?
He's an American skydiver. In 2016, he jumped from a plane 7.6 km up in the sky WITHOUT A PARACHUTE.

He landed in a huge net in the California desert – and suffered NO injuries.

The net was 30 m² – about the size of four tennis courts.
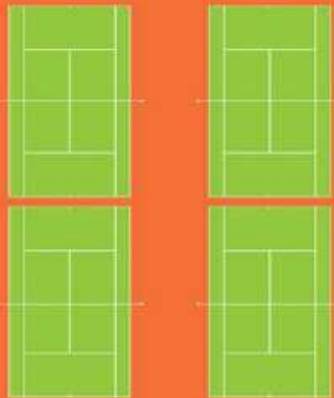
It was held up by four 61-metre cranes – taller than the Leaning Tower of Pisa.

Leaning Tower 57 m

Crane 61 m

As he fell, Luke Aikins reached speeds of 150 mph.

Fastest racehorse ever — 44 mph

Fastest toboggan ever — 84 mph

Fastest roller coaster — 149 mph

Luke Aikins — 150 mph
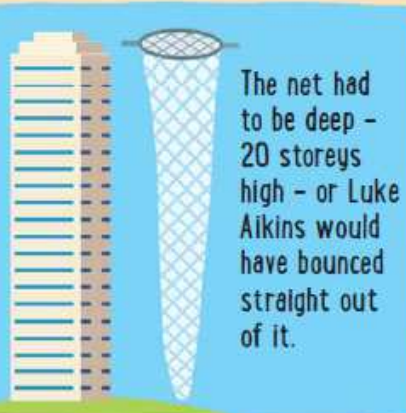
The net had to be deep – 20 storeys high – or Luke Aikins would have bounced straight out of it.

In 2012, Felix Baumgartner fell further (39 km) and faster (844 mph – breaking the sound barrier). But he used a giant parachute to slow himself down. I guess that makes him a... lightweight?

THIS IS A BLAST!

So you've decided to build a rocket in your back garden. What do you need to think about?

KOUROU – European Space Agency's Spaceport

EQUATOR

1. LOCATION
It would be good if your garden was near the Equator. The Earth spins fastest there, so rockets get an extra 'push' as they take off.

2. NOISE
It would help if no one were living next door. NASA's Saturn V made one of the loudest noises ever recorded – 220 db. This is loud enough to melt concrete.

rock concert 110 db

Saturn V 220 db

70 db vacuum cleaner

160 db human eardrums burst

Rocket in here

Nelson's Column 52 m

Statue of Liberty 93 m

Big Ben 96 m

VAB 160 m
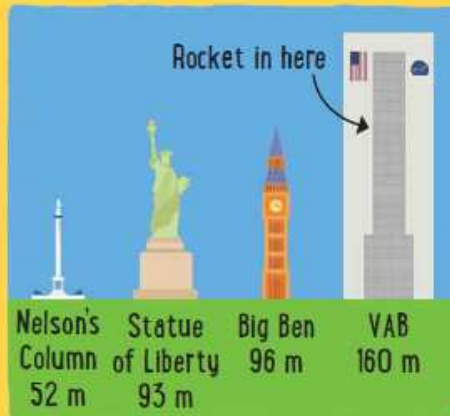
3. A LARGE SHED
You need to build (and store) your rocket somewhere. NASA's Vehicle Assembly Building (VAB) is the tallest single-story building in the world (160 m). It also contains the tallest doors (139 m).

SPACE SURVEY

People have strong views about space.
Which of these statements do YOU agree with?

53% of Americans say they'd like to go up
to space. Would you enjoy a space vacation?

One in ten British people say
they would be happy to go on
a ONE-WAY trip to Mars. That
means they'd NEVER get to
come back. Would you?

54% of people say they believe there is intelligent life on
other planets. Do you think aliens exist?

In a 2013 survey, 2.5%
of Americans said they had
been abducted or kidnapped
by aliens*. Do you believe
this is possible?

*Some people think the people in this survey might not have been telling the truth...

PACK IT IN!

Time to pack. There are no washing machines
in space, so if you went for a year, you'd
have to take THIS many pairs of pants.

JAN

FEB

MAR

APRIL

MAY

JUNE

COSMIC PONG
Why only 52 pairs? According to cosmonauts
on the Russian space station, Mir, they only
changed their pants ONCE A WEEK. Science
Officer Pettit of the International Space
Station (or ISS) once wore the same pair
of shorts for over THREE MONTHS.

PANTS ON FIRE!

What happens to the dirty undies? They become SHOOTING STARS. On the ISS, they are dropped into an old supply craft and ejected. Then, they burn up in the Earth's atmosphere.

JULY

AUG

SEPT

OCT

NOV

DEC
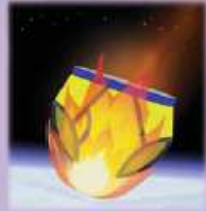
HOME GROWN

Science Officer Pettit of the ISS once grew tomatoes in his old pants. He said: 'I figured there might be a few nutrients in there'. When he'd tried before, the seeds had got too cold and died, but in his magic pants, the seeds sprouted in two days.

AWESOME G-FORCE

When you take off in your rocket, you'll be subject to HUGE levels of G-force (which is measured in 'g's). But how much exactly?

DEFINITION
G-force = amount of force or acceleration acting on your body (or anywhere else).

KEY

= 1 g

0 g	1 g	3 g	5 g	5.2 g
Weightlessness (like astronauts in space)	Normal gravity (like you're feeling now)	Space shuttle during launch	When most people black out	Olympic sledge (or 'luge')
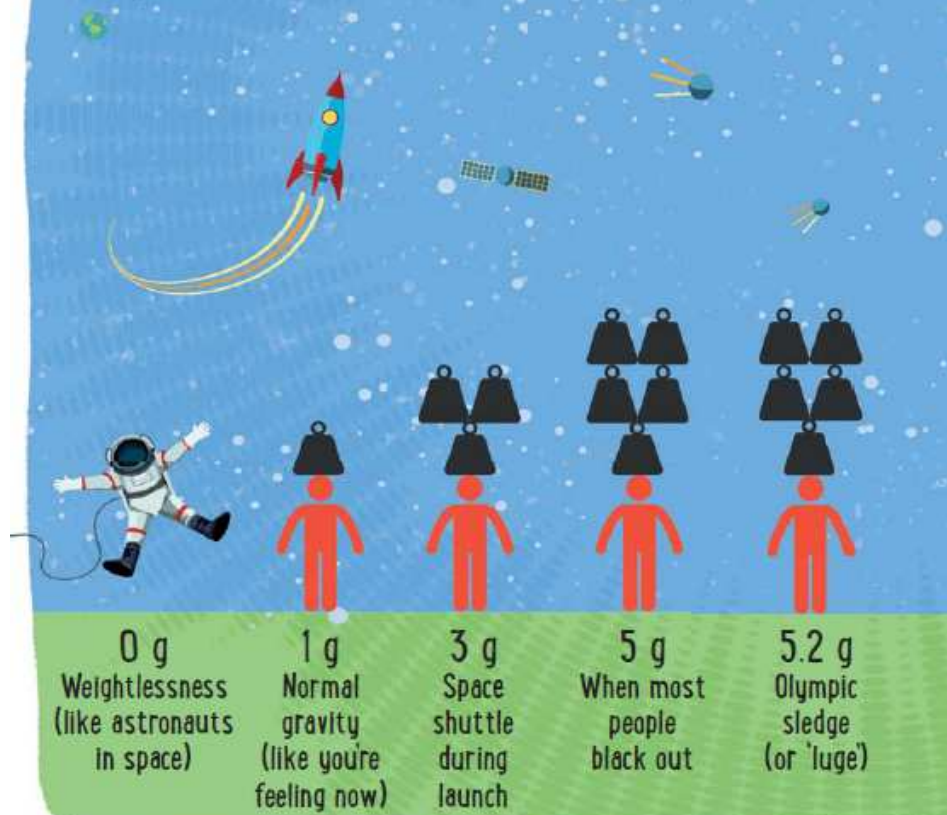
ROCKET MAN

In 1954, John Stapp wanted to find out how much acceleration the human body could withstand. He built a rocket sled that subjected him to 46.2 g – one of the highest levels ever. He suffered a total 'red out' (his eyes filled with blood) but made a full recovery and lived until he was 89.

6.3 g
Tower of Terror roller coaster (South Africa)*

7.2 g
Apollo 16 rocket

46.2 g
John Stapp Rocket sledge

*You only feel 6.3 g for a few seconds, so the roller coaster is safe to ride!

Reading

Read the first 6 pages of 'The Awesome Book of Space'.

- **Write** some of the new words you have learnt and talk about them with someone.
- **Draw** a picture and **write** 1 sentence about what this book is about.

Now read page 8 'This is a Blast'

- Make a list of all the things you would need to gather to build a rocket. Now write a list about other things you need to think about before making it.

Year 2 - Day 2- Writing

Writing

Write a list of facts that you have learnt about space.

Put a ⭐ next to the ones you fine most interesting. Share them with someone in your household.
Put a 😊 next to the facts others find the most interesting.

Extension: Can you add diagrams or drawings to the facts?

Wednesday 1st July 2020

Year 2 - Day 3- Grammar

Grammar

Write questions using the following words:

What   Why   Which   Who   Where   When

Example: What was the fastest rocket ever built called?

Extension: Can you fine the answers to the questions?

Year 2 - Day 4- Spelling

Spelling

Practise each word by rewriting ot 3 times. Say it aloud as you write it.

Space   Tower   Speed   Believe   International

Can you make the words using something different? Try using paint, play-doh or leaves.

Friday 3rd July 2020

Year 2 - Day 5- Handwriting

Handwriting

Copy each of the spelling words five times in your neatest handwriting.

. _____ .

Space

. _____ .

Year 2 Maths Home learning

This week's lessons and activities can be found on www.whiterosemaths.com in the folder **Summer term- Week 7** *we are aware these are different dates, but this is the folder we are working on this week.*

Monday 29th June 2020   Lesson 1 – Unit fractions

Please watch the video first https://vimeo.com/425799745 **Summer term- Week 7 Lesson 1**

Unit fractions

1) Complete the sentences for each shape.

a)
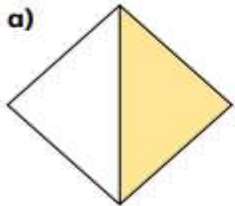
There are ☐ equal parts.

There is ☐ part shaded.

☐ is shaded.

b)
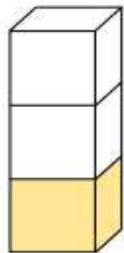
There are ☐ equal parts.

There is ☐ part shaded.

☐ is shaded.

2) There are ☐ equal parts.

There is ☐ part circled.

☐ is circled.

3) Tick the shape that has $\frac{1}{2}$ shaded.

☐   ☐   ☐
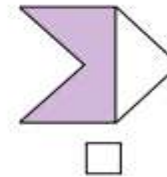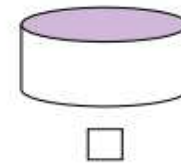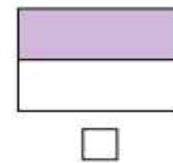
4) Tick the shape that has $\frac{1}{3}$ shaded.

☐   ☐

☐
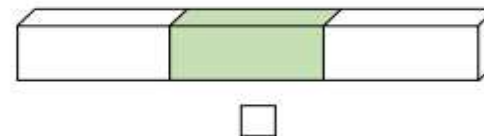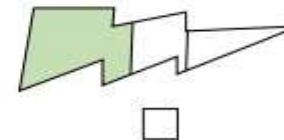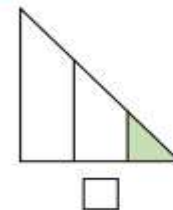
5 Tick the shapes that have $\frac{1}{4}$ shaded.

☐   ☐

☐
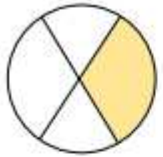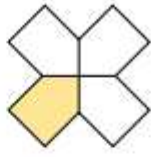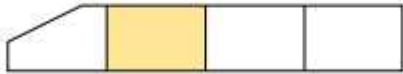
6 What fraction of each shape is shaded?
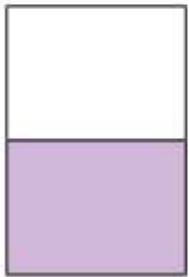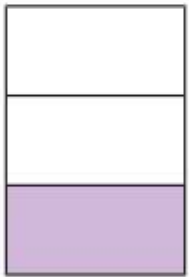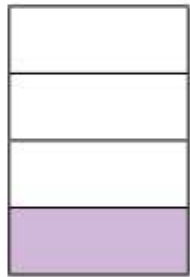
What is the same about the fractions?

What is different about them?

7 Here are some fractions.

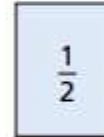| $\frac{1}{2}$ | $\frac{2}{3}$ | $\frac{3}{4}$ | $\frac{1}{4}$ | $\frac{1}{3}$ |
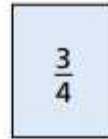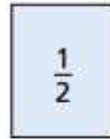
Tick all the unit fractions.

Compare answers with a partner.

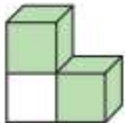Can you think of any more unit fractions?
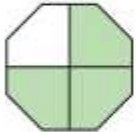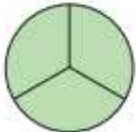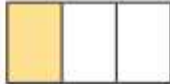
8 Match the objects to the unit fractions.

| $\frac{1}{2}$ |
| $\frac{1}{3}$ |
| $\frac{1}{4}$ |
| $\frac{1}{5}$ |

Please watch the video first https://vimeo.com/425799860 **Summer term- Week 7 Lesson 2**
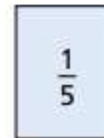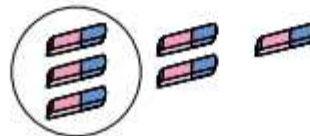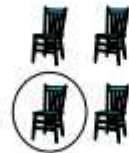
Non-unit fractions

1 Complete the sentences.

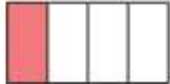a) There are 3 equal parts.

There are 2 parts shaded.

☐ is shaded.
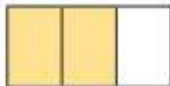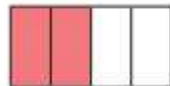
b) There are ☐ equal parts.
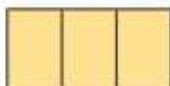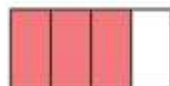
There are ☐ parts shaded.
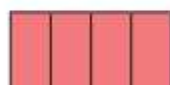
☐ is shaded.

c) There are ☐ equal parts.

There are ☐ parts shaded.

☐ is shaded.
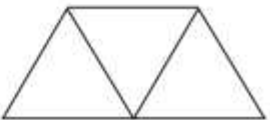
2 What fraction of each shape is shaded?

a)

b)
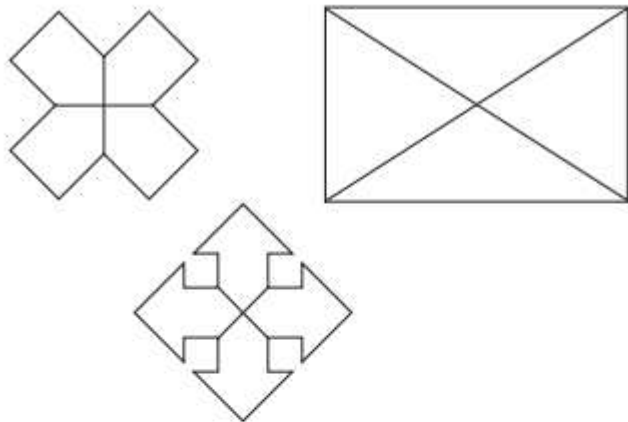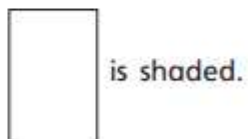
3 Colour $\frac{2}{3}$ of each shape.

4 Colour $\frac{3}{4}$ of each shape.

5 A shape has 3 equal parts.

a) What fraction is shaded if there are 2 parts shaded?

[ ] is shaded.

b) What fraction is shaded if there are 3 parts shaded?

[ ] is shaded.

6 Write the fractions in the table.

$\frac{1}{3}$ $\frac{3}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{2}{3}$

Unit fractions	Non-unit fractions

7 Fill in the boxes to give a unit fraction and a non-unit fraction.

unit fraction $\frac{\boxed{}}{5}$ **non-unit fraction** $\frac{\boxed{}}{5}$

Work with a partner.

Find other examples of unit fractions and non-unit fractions.

Write five examples of each.
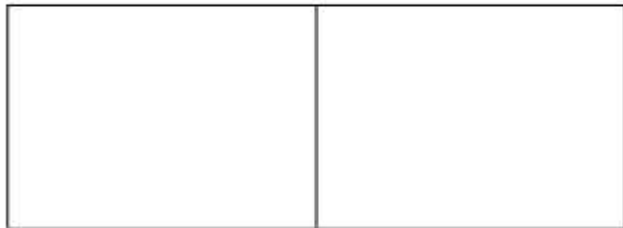
unit fractions: _____

non-unit fractions: _____

Wednesday 1stJuly 2020   Lesson 3 – Find a half

Please watch the video first https://vimeo.com/425799938 **Summer term- Week 7 Lesson 3**

Find a half

1 Here are 6 counters.

● ● ● ● ● ●

a) Share the counters into 2 equal groups.

Group 1	Group 2

b) Complete the sentences.

There are 6 counters.

The counters are shared equally between

[ ] groups.

There are [ ] counters in each group.
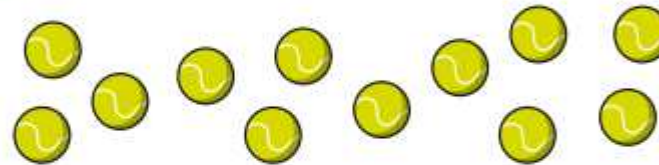
$\frac{1}{2}$ of 6 is equal to [ ]

2 Use counters.

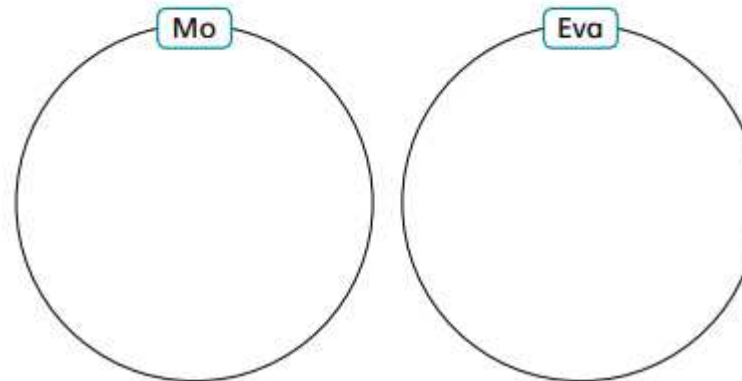a) Can you share 10 counters into 2 equal groups? _____

b) Can you share 11 counters into 2 equal groups? _____

Talk about it with a partner.

3 Mo and Eva have 12 tennis balls.

Share the tennis balls equally between Mo and Eva.

Mo   Eva

4 Find $\frac{1}{2}$ of each number.

Use the arrays to help you.

a) $\frac{1}{2}$ of 10 = ☐

b) $\frac{1}{2}$ of 16 = ☐

c) $\frac{1}{2}$ of 20 = ☐

5 Ron has run 20 m.

| Start | Finish |

Rosie has run half that distance.

a) Draw an arrow on the running track to show where Rosie is.

a) How far has Rosie run? ☐ m
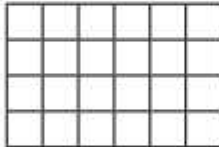
6 Here are half of Annie's sweets.

How many sweets does Annie have in total? ☐

Compare answers with a partner.

7 Colour $\frac{1}{2}$ of each shape.

Use the shapes to help you complete the number sentences.

a) $\frac{1}{2}$ of ☐ = ☐

b) $\frac{1}{2}$ of ☐ = ☐

8 Complete the number sentences.

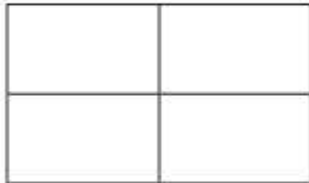$\frac{1}{2}$ of ☐ = 10 $\frac{1}{2}$ of ☐ = 7

Thursday 2nd July 2020   Lesson 4 – Find a quarter

Please watch the video first https://vimeo.com/425800005 **Summer term- Week 7 Lesson 4**

Find a quarter

1 Here are 8 counters.

a) Share the counters equally into 4 groups.

b) Complete the sentences.

[ ] counters are shared equally

between [ ] groups.

There are [ ] counters in each group.

c) What is $\frac{1}{4}$ of 8? [ ]

How did you work this out?

2 There are 12 pencils.
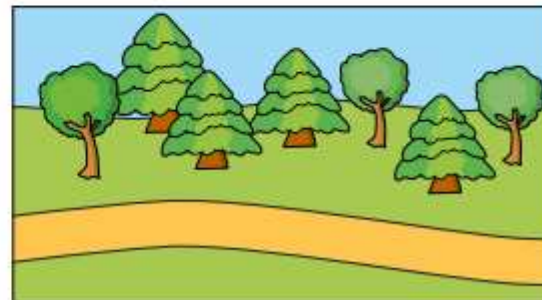
a) Share them equally between 4 pencil pots.

b) What is $\frac{1}{4}$ of 12? [ ]

3 Tom and Dora are walking along a path.
By midday Dora has walked halfway.
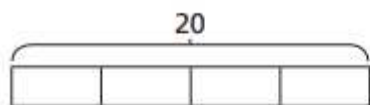Tom has walked a quarter of the way.

a) Draw an arrow to show where Dora is.
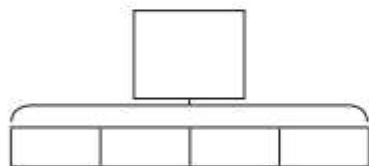b) Draw an arrow to show where Tom is.

4 Use the bar models to help you work out a quarter.
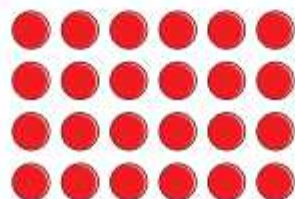
a) Work out $\frac{1}{4}$ of 20

20

$\frac{1}{4}$ of 20 = ☐

b) Work out $\frac{1}{4}$ of 16

☐

$\frac{1}{4}$ of 16 = ☐

5 Show that $\frac{1}{4}$ of 24 is 6

6 I can find a quarter by halving a number and halving again.
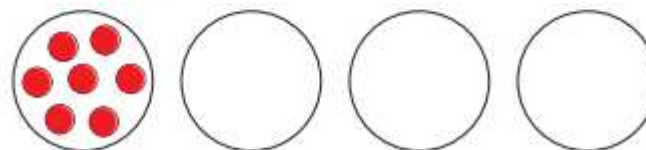
Use this method to find $\frac{1}{4}$ of 12

$\frac{1}{4}$ of 12 = ☐

7 Complete the table.

Number	$\frac{1}{2}$ of Number	$\frac{1}{4}$ of Number
8		
20		
24		

8 $\frac{1}{4}$ of a number is 7

What is the number?

The number is ☐

Friday 3rd July 2020   Friday Challenge

Watch the video https://whiterosemaths.com/homelearning/year-2/ Friday Challenge

Friday Maths Challenge
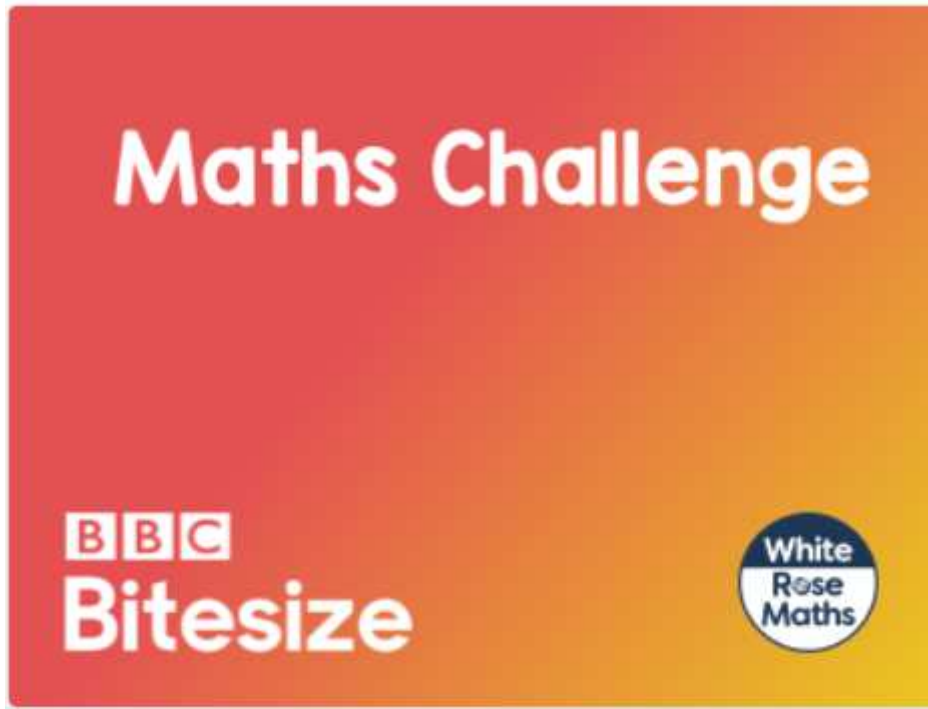
This week, BBC Bitesize have partnered with Premier League Primary Stars to bring you some football themed activities, videos and quizzes!

https://www.bbc.co.uk/bitesize/articles/zsvgn9q