



Year 2 Home Learning

Please see below the tasks we would like your child to work on this week. If you have any problems, please remember that you can email at ask@priestley.wilts.sch.uk during school hours.

Please note that any links to internet sites and YouTube videos need to be supervised by an adult, and they may contain adverts. You do not need to pay for any of the sites we are suggesting.

Maths

<https://whiterosemaths.com/homelearning/year-2/>

Summer Term – Week 1 (week 5 WRM)

Lesson 1 – Multiplication with x symbol

Lesson 2 – Using arrays

Lesson 3 – 2 x tables

Lesson 4 – 5 x tables

Lesson 5 – Friday Challenge

<https://whiterosemaths.com/homelearning/year-2/>

Summer Term - Week 2 (week 6 WRM)

Lesson 1 – 10x tables

Lesson 2 – Make equal groups - sharing

Lesson 3 – Make equal groups – grouping

Lesson 4 – Odd and even numbers

Lesson 5 – Friday Challenge

Maths learning will follow the White Rose Home learning lessons. Some of the learning is new learning and some will be work we may have covered previously. If it too difficult take a look at the other Year groups.

Useful links:

White Rose <https://whiterosemaths.com/homelearning/>
Master the Curriculum Year2 <https://masterthecurriculum.co.uk/products/?year=year-2&cat=math&subcat=mixed-objective-activities> these activities are free.

Top marks <https://www.topmarks.co.uk/maths-games/5-7-years/fractions-and-decimals>

Times Table Rock Stars <https://trockstars.com/>

Reading

Make sure that children are continuing to read every day at home. They can read to an adult at home or their siblings. Make sure that you are also discussing what they have read and asking them questions to see how much they have understood of the story.

Useful links:



Welcome to Book Trust Home Time

Looking for something fun as a family? Enjoy story time with our free online books and videos, play games, win prizes, test your knowledge in our book-themed quizzes, or even learn how to draw some of your favourite characters.

<https://www.booktrust.org.uk/books-and-reading/have-some-fun/>



Waterstones Children's Laureate Cressida Cowell has loads of great stuff planned! She's reading *How to Train Your Dragon* chapter-by-chapter and suggesting activities to try, as well as organising lots of other fun stuff for your children.

<https://www.youtube.com/playlist?list=PLE5MZB5pedUMNjLdgu0wYaSIL0dRLHcU0>



For as long as schools are closed, we're open. Starting today, children everywhere can instantly stream an incredible collection of stories, including titles across six different languages, that will help them continue dreaming, learning, and just being kids.

Stories help.

They entertain. They teach. They keep young minds active, alert, and engaged.

All stories are free to stream on your desktop, laptop, phone or tablet.

Explore the collection, select a title and start listening.

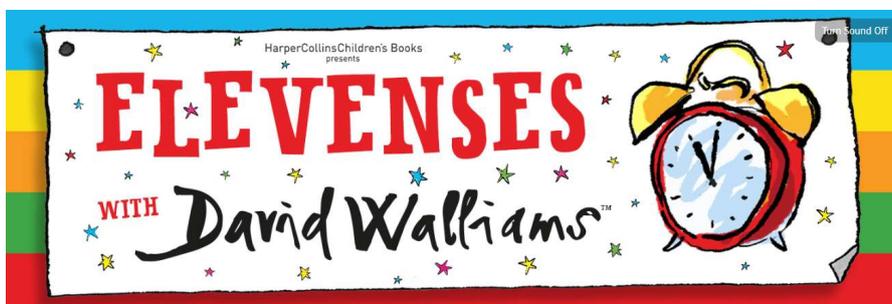
It's that easy. <https://stories.audible.com/start-listen>

Cracking Comprehension

<https://www.risingstars-uk.com/login>

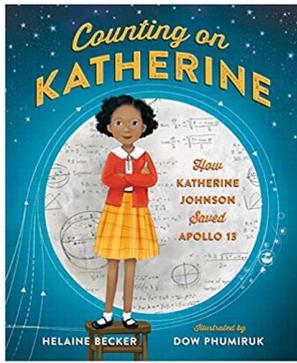
Author David Walliams is also reading stories aloud for children at 11am daily. You can find all previous read stories on his website free for you to listen to:

<https://www.worldofdavidwalliams.com/elevenses-catch-up/>



Counting on Katherine: The bold story of Katherine Johnson, an African-American mathematician who worked for NASA during the space race and was depicted in the film *Hidden Figures*.

You've likely heard of the historic Apollo 13 moon landing. But do you know about the mathematical genius who made sure that Apollo 13 returned safely home?



As a child, Katherine Johnson loved to count. She counted the steps on the road, the number of dishes and spoons she washed in the kitchen sink, everything! Boundless, curious, and excited by calculations, young Katherine longed to know as much as she could about math, about the universe.

From Katherine's early beginnings as a gifted student to her heroic accomplishments as a prominent mathematician at NASA, *Counting on Katherine* is the story of a groundbreaking American woman who not only calculated the course of moon landings but, in turn, saved lives and made enormous contributions to history.

Counting on Katherine

<https://www.youtube.com/watch?v=wXtTMCBpXRg> (The story being read)

Counting on Katherine

Katherine loved to count. She counted the steps to the road. The steps up to church.

The number of dishes and spoons she washed in the bright white sink.

The only things she didn't count were the stars in the sky. Only a fool, she thought, would try that!

Even so, the stars sparkled her imagination. What was out there?

Katherine yearned to know as much as she could about numbers, about the universe – about everything! Katherine's boundless curiosity turned her into a star student. She was so bright she skipped three whole grades.

She catapulted right past her brother! (He wasn't too happy about that.)

By the time she turned 10 she was ready for high school. But back then America was legally segregated by race.

Her town's High school didn't admit black students, of any age. Katherine burned with fury. She wanted more than anything to keep learning, there was still so much to learn.

"Count on me." Katherine's father told her.

By working night and day he earned enough money to move the family to a town with a black High school.

Katherine loved High school. She was good at every subject but math was still her favourite. She dreamed of becoming a research mathematician, making discoveries about the number patterns that are the foundations of our universe.

In those days though, there were no jobs as research mathematicians for women. Professions most available to them were teaching and nursing.

So Katherine became an elementary school teacher. She liked her job and she loved her students. But she never stopped dreaming about exploring numbers.

In the 1950's the US government's National Advisory Committee on Aeronautics hired thousands of new employees, it even started hiring black women as mathematicians.

Katherine heard about the mathematician jobs. Her heart raced with excitement – perhaps her dream could come true after all.

But when she applied for one of the positions, she was told they were already filled. Katherine had to wait a whole year until new spots opened up. Her patience paid off. She got the job.

A few years later, the Soviet Union sent a rocket ship into space, launching a "space race" with the United States. NACA was rolled into a new space agency, the National Aeronautics and Space Administration (NASA).

Katherine now found herself at the heart of America's space program. She worked as a "computer" (electronic computers were not widely used yet), calculating long series of numbers.

All the computers were women, they were given the tasks that men thought were boring and unimportant.

That didn't bother Katherine. She knew that without contributions a spaceship couldn't reach its destination. Nor safely return to earth.

Here's why:

Sending a rocket ship into space is like throwing a ball into the air, At first, the force of the throw sends the ball up, up, up!

But as it's energy runs out, the ball's path curves back towards the ground. Where it lands depends on what angle it was thrown and how high and how fast it flew.

Because math is a kind of language, Katherine could ask those questions – how high would the rocket ship go and how fast would it travel? – using numbers. And numbers would provide the all-important answer: where would it land?

To find out Katherine plotted the numbers she calculated on a graph, when she joined the points together they formed a curved line.

At one end of that line was Earth where the rocket ship launched, at the other end where Earth would be when the ship landed.

Katherine's reputation for accuracy and strong leadership skills (she was known for asking plenty of questions!) got her promoted to Project Mercury, a new program designed to send the first American astronauts into space.

Mercury's missions were going to be dangerous. So dangerous that even the project's star astronaut, John Glenn, refused to fly unless Katherine okayed the numbers.

"You can count on me," she said.

Glenn's spacecraft, Friendship 7 orbited Earth three times and returned home safely. Glenn became a national hero.

Katherine was promoted again. Now she was asked to calculate the flight paths for Project Apollo – the first flights to the moon.

"Count on me," she said.

On July 20, 1969, the Apollo 11 astronauts walked on the moon. Their feat was celebrated around the world.

More triumphs followed. Apollo 12 rocketed to the moon in November 1969.

Apollo 13 launched on April 11, 1970. But on the third day of Apollo 13's flight, the worst thing happened – and explosion in space.

Could the crippled spaceship make it to the moon?

And if it didn't, would it be able to get back home to Earth?

The three astronauts on board were in grave peril.

Commander Jim Lovell told mission control "Houston, we've got a problem."

Back on Earth, Katherine Johnson got a phone call. Her flight plan calculations would have to be done all over again – and perfectly. It would be the toughest challenge of her life. Katherine told mission control, "You can count on me."

She rolled up her sleeves, took a deep breathe, and began doing the maths.

She worked hard and fast. A few hours later, Katherine's calculations were finished. The flight path to return home would take the ship around the far side of the moon. From there the moon's gravity would act like a slingshot to zing the ship back to Earth.

To get home, the crew of Apollo 13 would have to follow Katherine's course exactly by burning off fuel at precise intervals.

If the astronauts made a mistake, their ship would drift through space forever.

Katherine waited anxiously to hear the astronauts' report.

Finally, it crackled over the loudspeakers.

"WE'VE GOT IT!"

Apollo 13 was back on track.

Katherine Johnson had done it. She'd brought Apollo 13 home.

She was no longer the kid who dreamed of what lay beyond the stars. She was now a star herself.

Think about the story

Have a think about the meaning of the story. What is it trying to tell you? What happened in the story?
Have a look at the double page spread below. What message is it trying to give?



Discussion Questions

Why should we remember the achievements of Katherine?

How might Katherine have been feeling at different points in the story?

What were the times in Katherine's life when she had to prove herself?

How is she a role model?

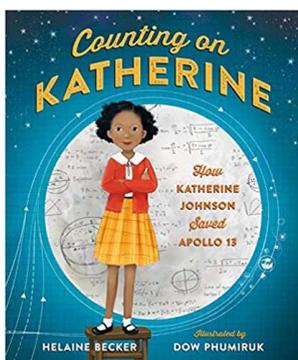
What is your opinion of society then and now?

Do you think things have changed?

Why did Katherine have to move in order to attend high school?

What job did Katherine want to do when she finished school? What job did she take instead? Why?

Why did Katherine have to be careful in her calculations when she was trying to bring Apollo 13 home?



Book Cover

Draw your own interpretation of the book cover.

Once you have drawn it think about how you could write a blurb to explain what the book is about. You could do this on the back of the book cover like we do in class.

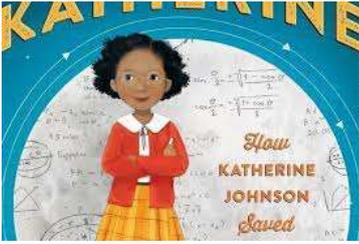
Writing

Your first assignment is to find out all you can about NACA and NASA!

Why not create your own Wikipedia page about NASA and NACA?

It might be helpful, before you start your Wiki page, to map out what you know already using a grid like this.

Character Description



Draw a picture of the main character in this story. The around the side write words / phrase to describe her. Then turn the words / phrases into sentences before writing your full character description. Remember to think about her personality as well as what she looks like.

Some words you could use to describe Katherine – inspirational, a mathematician, caring, determined, a yellow skirt, a red jacket

Wordsearch

Name: _____

Counting on Katherine
Word Search

S	P	Y	R	U	M	A	S	A	N	P	L
C	E	X	R	A	L	A	D	M	Q	D	O
O	H	G	T	U	T	A	V	Q	A	K	O
U	C	H	R	U	C	H	U	T	J	O	H
N	O	N	M	E	G	R	E	N	L	Z	C
T	M	R	O	J	G	A	E	L	C	H	S
L	P	A	P	O	C	A	O	M	Z	H	I
Z	U	T	H	H	M	P	T	G	L	B	T
Z	T	S	E	P	A	L	M	I	Q	Q	P
M	E	R	O	C	K	E	T	Q	O	W	M
S	R	E	B	M	U	N	Q	K	N	N	M
C	A	L	C	U	L	A	T	I	O	N	S

APOLLO	MATH	ROCKET
CALCULATIONS	MERCURY	SCHOOL
COMPUTER	MOON	SEGREGATION
COUNT	NASA	STAR
LAUNCH	NUMBERS	TEACHER

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Can you create your own wordsearch using the words from the story which you think are the most important.

Instructions

Can you design your own rocket?

1. Make a list of the materials you will need
2. Draw it and label it with the materials you've decided to use
3. Colour it in
4. Think about the order in which you are going to make it.
5. Write a set of instructions which someone else could follow to create the same rocket as you. You can add photos or drawings / diagrams for each step incase someone finds reading hard.

How to make a dump truck

You will need:

- 1 large cereal box
- 2 small cereal boxes
- Shoe box lid
- Thin strip of blue paper
- 4 bottle tops
- Red and yellow paint to decorate
- 4 round lids
- Scrunched up newspaper
- Grey paint
- Black paint
- Sticky tape



Method:

	1. Cut the small cereal box in half, lengthways.
	2. Stick it on top of the larger cereal box using sticky tape on one side only.
	3. Cut the second small cereal box in half, widthways and stick this on the other end of the large cereal box, standing upright.
	4. Stick a shoebox lid on the highest part of the truck to make a roof.
	5. Stick a strip of blue paper just underneath the roof to make a window.
	6. Stick two bottle tops onto the lower front of the truck to make the headlights.
	7. Paint the truck red and yellow.
	8. Paint four round lids black. When they are dry, stick them around the bottom of your truck to make the wheels.
	9. Scrunch up pieces of old newspaper and paint them grey to make some boulders for your truck to carry.

To design and make a model rocket.



Think about the imperative verbs you should be using. Imperative verbs are verbs which tell you to do something.

Here are some to help ...

Cut, put, stick, mould, attach, glue, scrunch, fold, paint.

Spellings

Take this time to learn to spell all the common exception words for your Year group and the 100 first high frequency words.

100 High Frequency Words

a	children	her	look	on	there
about	come	here	looked	one	they
all	could	him	made	out	this
an	dad	his	make	people	time
and	day	house	me	put	to
are	do	I	Mr	saw	too
as	don't	I'm	Mrs	said	up
asked	down	if	mum	same	very
at	for	in	my	see	was
back	from	into	no	she	we
be	get	is	not	so	went
big	go	it	now	some	were
but	got	it's	of	that	what
by	had	just	off	the	when
called	have	like	oh	their	will
came	he	little	old	them	with
can	help			then	you

Year 1 and 2 Common Exception Words

Year 1

the	they	one
a	be	once
do	he	ask
to	me	friend
today	she	school
of	we	put
said	no	push
says	go	pull
are	so	full
were	by	house
was	my	our
is	here	
his	there	
has	where	
I	love	
you	come	
your	some	

Year 2

door	gold	plant	clothes
floor	hold	path	busy
poor	told	bath	people
because	every	hour	water
find	great	move	again
kind	break	prove	half
mind	steak	improve	money
behind	pretty	sure	Mr
child	beautiful	sugar	Mrs
children	after	eye	parents
wild	fast	could	Christmas
climb	last	should	everybody
most	past	would	even
only	father	who	
both	class	whole	
old	grass	any	
cold	pass	many	

Learn: This week we will be focusing on 'long vowel sounds'

Long vowel sounds

Challenge

The sound /ay/ as in **day** can be written in different ways.

- 1 Choose the correct spelling to complete the words in the sentences below.
You can use each spelling more than once.



ay a_e ai a

- a The **tr**__ **n** was **l**_ **t**__ to get into the station.
b Which **d**__ can Jack come to **pl**__?
c I don't like the **r**__ **n**.

The sound /ee/ as in **tree** can be written in different ways.

- 2 Choose the correct spelling to complete the words in the sentences below:

ee e_e ey ie ea

- a I can **s**__ the **s**__.
b The **th**__ **f** stole the gold **k**__.
c The old oak **tr**__ stood in the big **f**__ **ld**.

The sound /igh/ as in **high** can be written in different ways.

- 3 Choose the correct spelling to complete the words in the sentences below:

igh ie i_e i

- a I can see the **k**_ **t**_ flying **h**__!
b The moon looks big and **br**__ **t** at **n**__ **t**.
c I could not **f**_ **nd** my school **t**__.

Find out more
about long vowel sounds on
pages 49–52 of your *Oxford First
Grammar, Punctuation and
Spelling Dictionary*.



Learn: This week we will be focusing on 'nouns and adjectives'

Nouns and adjectives

Challenge

A **noun** names a person or thing.
An **adjective** describes a person, place or thing.

Find more about nouns and adjectives on pages 12–17 of your *Oxford First Grammar, Punctuation and Spelling Dictionary*.

- 1 a Circle the **nouns** below.

dog funny boy
chair silly coat cat
horse yellow book

- b Circle the **adjectives** below.

hot red snail
sharp bright house happy
lamp scary soft



FACT

An **adjective** can tell us more about a noun.

- 2 Draw lines between the **adjectives** and the **nouns** that they describe best. The first one has been done for you.



Adjectives

yummy
scaly
smelly
sour
scary

Nouns

sock
lion
cake
fish
lemon

Nouns and adjectives

There are different types of nouns. A **common noun** names people, things and places in general. A **proper noun** names a particular person, place or thing.

- 1 Circle the **proper nouns** and underline the **common nouns** below.

London desk Sam
door boy Saturn
sock girl Wednesday

Science

Earth and Space

Can you describe the movement of the Earth, and other planets, relative to the sun in the solar system?

Or describe the movement of the Moon relative to the Earth?

Maybe draw diagrams to help.

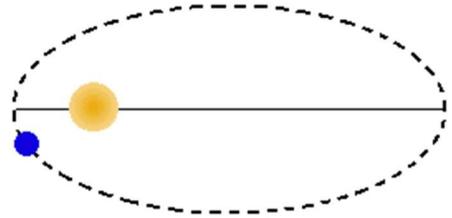
Create a poster all about 'Orbit'.

How do objects stay in orbit?

What shape is an orbit?

Where do satellites orbit the Earth?

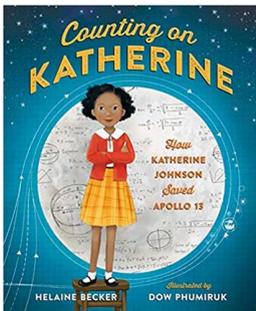
<https://www.nasa.gov/audience/forstudents/5-8/features/nasa-knows/what-is-orbit-58.html>



History

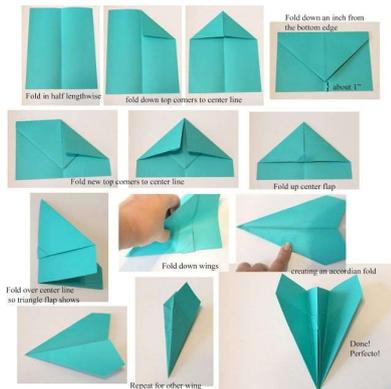
What can you find out about the life of Katherine Johnson?

Create a timeline to celebrate all of Katherine Johnson's achievements – you can write information and draw pictures to match if you like.



Art

Have a go at some Origami – the art of folding paper.



Can you make this paper airplane and test how far it flies?

If you were to fold your airplane in a different way, could you get it to fly further or for longer?

Have a go!



When you've mastered the paper airplane, can you make one with objects from around your house?

Can you get these to fly too?

Keeping Active

Being less able to go outside and play with other children may mean that your child is less active than normal but there are lots of ways you can incorporate exercise into your new home learning routine.

YouTube is an endless source of great exercise and dance videos for your children. Try these to start with – there are plenty more!

- Go Noodle is a free service parents can sign up for that provides dances/educational songs for the children to dance to. They can earn points and upgrade characters the more they do. <https://app.gonoodle.com/>
- <https://www.youtube.com/user/DanceandBeatsLab> has a wide selection of fun dance routines for younger children to enjoy.
- <https://www.youtube.com/channel/UC0Vlhde7N5uGDIFXWWEbFQ> has a more challenging selection of videos for older children.
- <https://www.youtube.com/user/CosmicKidsYoga> has a fun range of videos to guide your child through yoga sessions.
- Jump Start Jonny - has some fab free high-energy workouts on his website, plus a few on YouTube too. www.jumpstartjonny.co.uk/home
- Supmovers <https://www.bbc.co.uk/teach/supmovers> Active learning for English, Maths, Science and PSHE.

Practical tip: Make sure children warm up and warm down before and after each workout session. Walking on the spot, arm swings or circles, jumping jacks, side hops and lunges are all good options.

Joe Wicks is providing free PE lessons live at 9am each day via his YouTube channel. This is a great way to start the day and is suitable for all ages. Either google 'Joe Wicks PE lesson' or go to the link below:

<https://www.thebodycoach.com/blog/pe-with-joe-1254.html>