

Year 4



Term 6, Week 4 – 22nd-26th June

This week's topic: Inventors and Inventions

Dear Parents and Carers,

We hope you are all well! This document provides a home-learning schedule for next week. We are going to be learning about Inventors and Inventions, and we will be marking Windrush Day on Monday. Most resources needed can be accessed online or in the home. The structure will be similar to last time and will include activities where the children can work with an adult or work independently. For your child's daily Maths learning, they should continue to use their Sumdog account and follow the White Rose scheme of work; we are now providing the answers to the White Rose questions. When going through the answers, try using them as a learning opportunity. Excitingly, each class has been entered into all future Sumdog contests; the first one is for Maths Week London, which runs from 19th-25th June!

Trinity Laban have provided us with the next dance Dance lesson, which you can find in the PE section below. You have been emailed the password to access the video.

Please encourage your child to be independent and let them choose which activities they want to complete. As a guideline, we suggest 45 minutes of Maths and English each day, and 20 minutes for Reading.

Wellbeing Wednesday's activities will be emailed to parents and carers through Parentmail. We hope that these activities may help to address some of the worries at this challenging time. We must remember to look after our mental wellbeing, children and adults alike.

Well done to everyone for their work so far and we hope you enjoy learning about Windrush and Inventors and Inventions.

Remember to look at the additional activities section as they cross over with the daily activities. Some of the daily activities have both science, art, DT links. So, check for any extra ideas / activities.

If you would like to share any of your learning outcomes with us, then please do forward them to the school email address which is <u>admin@dalmain.lewisham.sch.uk</u> – we would love to see the work you have produced.

Take care and stay safe, Miss Higgins and Mr Phillips

In your pack each week we will try to include:

- Open ended project ideas and research topics
- Activities to explore independently or together
- Games to play
- Ideas for science experiments
- Art and craft ideas
- Links to other learning resources
- A use for toilet roll tubes...



Maths:

The video links document contains the videos for all of the lessons. You can then download each worksheet and either respond in your workbook or on the sheet.

Video Links: <u>https://resources.whiterosemaths.com/wp-content/uploads/2020/06/Year-4-Week-7.pdf</u> Day 1:

Questions: <u>https://resources.whiterosemaths.com/wp-content/uploads/2020/05/Lesson-1-Tenths-as-</u> <u>decimals-2019-1.pdf</u>

Answers: <u>https://resources.whiterosemaths.com/wp-content/uploads/2020/05/Lesson-1-Answers-</u> <u>Tenths-as-decimals-2019-1.pdf</u>

Day 2:

Questions: https://resources.whiterosemaths.com/wp-content/uploads/2020/06/Lesson-2-Dividing-1digit-by-10-2019.pdf

Answers: <u>https://resources.whiterosemaths.com/wp-content/uploads/2020/06/Lesson-2-Answers-</u> <u>Dividing-1-digit-by-10-2019.pdf</u>

Day 3:

Questions: <u>https://resources.whiterosemaths.com/wp-content/uploads/2020/06/Lesson-3-Hundredths-as-decimals-2019.pdf</u>

Answers: <u>https://resources.whiterosemaths.com/wp-content/uploads/2020/06/Lesson-3-Answers-</u>

Hundredths-as-decimals-2019.pdf

Day 4:

Questions: https://resources.whiterosemaths.com/wp-content/uploads/2020/06/Lesson-3-Hundredths-asdecimals-2019.pdf

Answers: <u>https://resources.whiterosemaths.com/wp-content/uploads/2020/05/Lesson-4-Answers-</u> Dividing-1-and-2-digits-by-a-hundred-2019.pdf

<u>Extra games:</u>

https://www.transum.org/Software/SW/Anagrams/default.asp

Grammar and spelling:

Grammar has also been updated on Sumdog.

Additional websites:

https://www.bbc.co.uk/bitesize/topics/zhrrd2p

https://www.teachwire.net/news/7-of-the-best-online-grammar-games-for-ks2

Day	Tasks	Complete d?
Monday	<section-header></section-header>	
	Today is Windrush Day! What was Windrush? <u>https://www.youtube.com/watch?time_continue=12&v=ViGvJRvJCeo&feature</u> <u>=emb_logo</u> In June 1948 the <i>Empire Windrush</i> arrived at Tilbury Docks, Essex, carrying	
	hundreds of people from the Caribbean. Many aboard had been to Britain before. Some had fought in World War Two. Most were filled with excitement and hope about coming to Britain. Citizens had British citizenship and British passports because many islands within the Caribbean were part of the British Empire. The arrival of <i>Windrush</i> is very well known, but this was not the first nor the last ship to carry migrants from the Caribbean. Many other people came to Britain to make new lives, right up to the 1970s. This was the 'Windrush Generation'. Many children at Dalmain will be able to trace their heritage to this generation of pioneers.	
	Picture detective time!	
	Look carefully at the photographs below and describe what you see.	
	Setting: what can you see in the background?	
	People : what are the people in the picture doing, what are they wearing?	
	Objects : what are people holding, looking at, etc?	

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POST CARD Ex. German Froopship. Ex. German Froopship. "Monte Rosa." "Monte Rosa." Sailed from Kingston, G.A.M. 37/5/48. Genttiled during the warround length 525 feet Under the sea for 16 mth 8 25 feet. Her 5th voyage since sign Width 65 feet. Her 5th voyage since sign Width 65 feet. Printed after the war.

Floella Benjamin came to England from Trinidad in 1961 – her mother had already moved here. Floella went on to become a successful children's television presenter, producer and politician. She is now a Baroness.

Floella Benjamin has written a story of her life, *Coming to England*. Here is a photograph of Floella as a child with her mum, dad, sister Sandra and brother Lester.

Read this part, in which Floella describes her special Sunday lunches at home with her family in Trinidad. Marmie was the name Floella used for her mum!

For lunch it was either a rich tasty soup which was like a stew made of meat, pulses, vegetables and dumplings, or rice served with beef, chicken or, on Fridays, fish. For dessert



we had whatever fresh fruit was in season: mangoes, pineapples, pawpaw or pomsitea, and for supper we had bread and cakes, all baked by Marmie, washed down with cocoa.

Saturday was Marmie's baking day, and she would bake enough for the whole week. Bread or bakes – a sort of bread with no yeast; sweet bread – bread with coconut and sugar; sponge cakes and coconut drops. The smell of freshly baked bread and cakes was wonderful – it always made me hungry. Sandra and I had to do our bit by helping to grease the baking tins and stir the cake mixture. The best part was when we fought over licking the cake bowl.

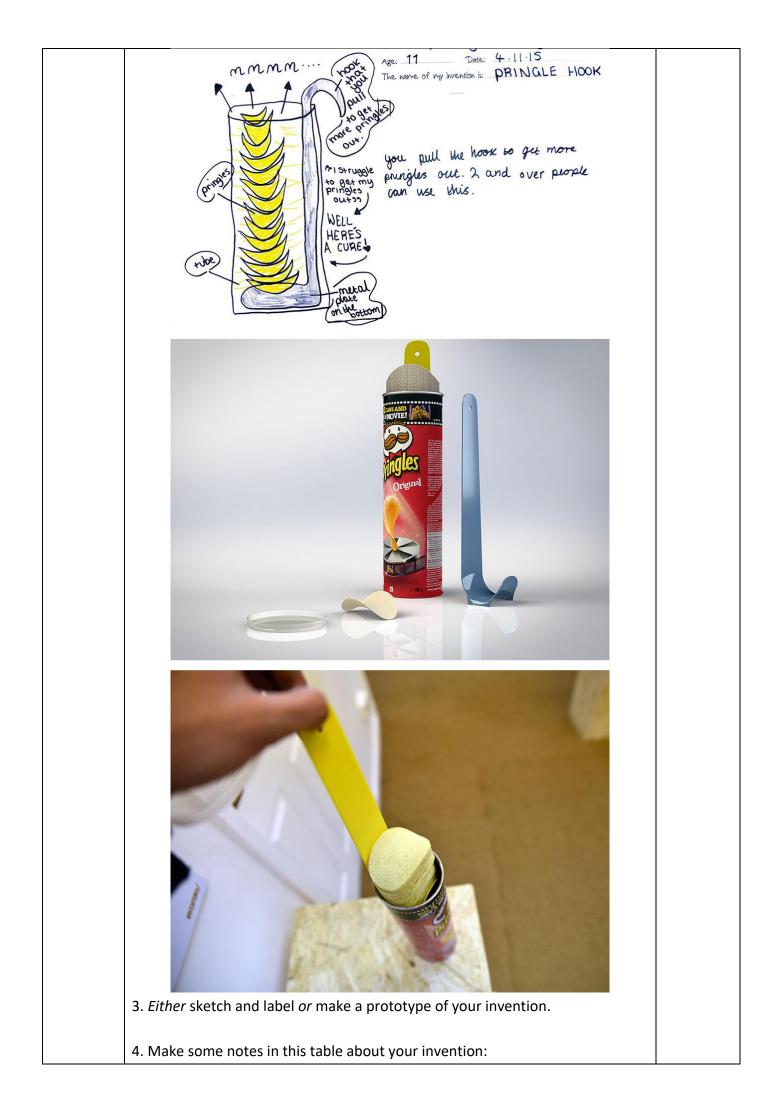
Sunday was a special day in Trinidad. It was the one time of the week when we all got together which gave me a happy feeling of belonging and a sense of occasion. The realisation that the family unit was special began to take place during that time. We ate lavishly in the sitting room: the crisp starched white tablecloth would be spread out over the mahogany table, and the best glasses – frosted coloured ones – and plates were used. Then the table would be laden with dishes of food – it was like a feast. On the menu was brown down chicken, rice, plantains, callaloo, sweet potatoes, cassavas, gungo peas, and macaroni cheese pie. (Floella Benjamin, Coming to England, pp. 15–18)

 might someone from Trinidad have What does 'traditional English food' Think of a special family meal or celebration that you have experienced and write about it: When and where did it happen? Who was there? What did you eat? How did it taste? What did you enjoy? Which of these tasty adjectives could you use? Use this writing frame as a guide: 	
I remember the time when I was about years old and , and I liked / enjoyed	l it happened at / in d were there. eat / drink. It was cooked by
	deos included at the end of this pack. Can

Image: Constraint of the second se	an ed in d
 you see in the above picture? Let's sort some materials into <i>natural</i> and <i>artificial</i>. We are more interester your thinking rather than whether your answer is correct! You can also ad your own examples. Use this activity as handwriting and spelling practice Materials: wood, plastic, metal, paper, card, rubber, stone, ceramic, concrete, cotton, wool, polyester, leather 	ed in d
your thinking rather than whether your answer is correct! You can also ad your own examples. Use this activity as handwriting and spelling practice Materials: wood, plastic, metal, paper, card, rubber, stone, ceramic, concrete, cotton, wool, polyester, leather	d
wood, plastic, metal, paper, card, rubber, stone, ceramic, concrete, cotton, wool, polyester, leather	,
wool, polyester, leather	,
Natural Artificial	
2. Tell an adult about three different inventions that are in your home right now; choose examples that you are interested in. What does each gadget How does it work?	

Name of Invention	What it does	What it's made of	How it works
Stapler	<mark>Fixes</mark> sheets of paper together	• Metal • Plastic	 Pushes metal staple through papers Metal plate
			bends staple around bottom of sheets
1.			
2.			
3.			

	4. Highlight or <u>underline</u> any verbs (doing words) that you used in your notes. Have a look at those highlighted in the example. What do you notice about the tense of these verbs? They should be in the present simple tense.	
	What is the present simple form of the verbs below? Say the sentences.	
	e.g. The light <mark>came on</mark> . > The light <mark>comes on</mark> .	
	• It made a gurgling sound.	
	The wheel spun around.	
	The grabber picked up the rubbish.	
	 The whole thing went 'bang'! 	
	5. Choose one of the inventions or gadgets from your list. Write a paragraph	
	explaining what it does, what it's made of and, if you know, how it works. Use	
	this writing frame to help you:	
	This invention / gadget is called	
	It is made of	
	It works by	
	When the,,	
	If you,	
	This gizmo / device will	
	If you have time, sketch the invention underneath your writing!	
Wednesd	Remember that it is Wellbeing Wednesday – check the school's website for	
ау	this week's updates! Look under News & Dates / Coronavirus Updates and you will find loads of resources and activities.	
	you will find loads of resources and activities.	
	Invent!	
	1. Inventors usually start with a problem they want to solve, however big or	
	small (like fixing sheets of paper together). What invention would make your	
	life or the life of your loved ones happier?	
	2. Talk to an adult or older sibling and note down some ideas for a household	
	invention. Take a look at this example. What does it do?	



What it does	What it's made of	How it works

5. Write at least one paragraph about your invention.

You can use the same writing frame:

This invention / gadget is called
It is made of
It works by
When the,,
If you,
This gizmo / device will

Try to vary your verbs. Here are some ideas:

pushes	turns (on/off/around)	appears
illuminates	rotates	makes
pulls	presses	beeps

The second se	Thursday	Research an Inventor		
Carled Durrel Gerald Durrel Gerald Durrel James West and James West and Gerhard M. Sessler James West and James And James And James And		1. Read the inventors and scientists information below.		
as a conservationist who worked hard to save lique plants and animals. Invention was the first telephone. Invented an efficient microphone which is dern phones. Invented an efficient microphone and en on system. Invention was the first three-signal traffic lights. Intertions made it possible for the discovery ectricity. Among his many inventions were an on system. Intertion toothpaste in a tube.				
Gerald Durrell w Madagascar's un Alexander Graha His most famous West and Sessle used in most moo Maria Telkes w discoveries aroun Garrett Morgan v the first modern g discoveries aroun Garrett Morgan v the first modern g discoveries aroun discoveries aroun determined the possible temperat possible temperat		rrell was a conservationist who worked hard ar's unique plants and animals. Graham Bell was a Scottish scientist and i amous invention was the first telephone. Sessler invented an efficient microphone w Sessler invented an efficient microphone w set modern phones. Sessler invented an efficient transphone w around solar power. The session of the first three-signal traffi odern gas mask and the first three-signal traffi scientists were mainly responsible for the di scientists were mainly responsible for the di fhomson, who is better known as Lord d the temperature of absolute zero (the mperature).	Thomas Edison's inventions made it possible for people to enjoy the benefits of electricity. Among his many inventions were an efficient version of the lightbulb, the carbon microphone and an electric distribution system. Washington Sheffield was an American dentist and he was famous for inventing the first modern toothpaste in a tube.	
Key Vocabulary Gerald Durrell Gerald Durrell Alexander Graham Bell James West and Gerhard M. Sessler Maria Telkes Maria Telkes Garrett Morgan Garrett Morgan Garrett Morgan Lord Kelvin Lord Kelvin Lord Kelvin Mashington Sheffield		Key Vocabulary Gerald Durrell Alexander Graham Bell James West and Gerhard M. Sessler Maria Telkes Maria Telkes Garrett Morgan Garrett Morgan Lord Kelvin Lord Kelvin	Thomas Edison Washington Sheffield	

Which inventor are you most impressed by why? *Either* choose that inventor *or* choose another inventor that interests you.

Black British inventors	
https://www.blackhistorymonth.org.uk/section/science-and-medicine/	
African American inventors	
http://teacher.scholastic.com/activities/bhistory/inventors/	
https://hintng.com/notable-african-american-inventors-and-their-inventions/	
Women Inventors	
http://www.takepart.com/article/2015/06/14/10-female-inventors-you-need-	
<u>to-know</u>	
https://www.amightygirl.com/blog?p=12223	
2. Do some more research on the internet about that inventor and invention.	
Then make some notes under these sub-headings:	
 <u>Life</u> – where / when were they born? What kind of childhood / 	
education did they have?	
 <u>Invention</u> – what invention are they famous for? How did they get the 	
idea? Did they face any obstacles?	
 Legacy – how has this invention been important? 	
Present Your Research	
Today, you are going to use vesterday's notes to present your research. You	
can choose to present it in one of these ways:	
1 Write a biography (life story) of the inventor. Use the sub beadings	
3. Make a poster, PowerPoint or similar presentation using technology.	
<image/> <complex-block><image/><image/><image/><image/><image/><image/></complex-block>	
	https://www.blackhistorymonth.org.uk/section/science-and-medicine/ African American inventors http://teacher.scholastic.com/activities/bhistory/inventors/ https://hintng.com/notable-african-american-inventors-and-their-inventions/ Women Inventors http://www.takepart.com/article/2015/06/14/10-female-inventors-you-need-to-know https://www.amightygirl.com/blog?p=12223 2. Do some more research on the internet about that inventor and invention. Then make some notes under these sub-headings: • Life – where / when were they born? What kind of childhood / education did they have? • Invention – what invention are they famous for? How did they get the idea? Did they face any obstacles? • Legacy – how has this invention been important? Present Your Research Today, you are going to use yesterday's notes to present your research. You can choose to present it in one of these ways: 1. Write a biography (life story) of the inventor. Use the sub-headings from your notes to structure your writing. 2. Make a comic strip showing the life of the inventor, and how he or she arrived at the idea. You can use the template below. 3. Make a poster, PowerPoint or similar presentation using technology.

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Scientists or inventors you have studied. Using facts you learnt during your lessons and your own research, create a comic strip to	tell the story of their famous inventions or disc include speech bubbles or thought bubbles too!		k
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Additional Activities

	What did the Victorians ever do for us
Science	
	https://victorianchildren.org/victorian-inventions/
	Women inventors: some great inventions and fascinating stories; you might want to find
	out more about some of them
	https://www.amightygirl.com/blog?p=12223
	Some interesting reading with some science activities based on the invention of the penny post- make your own ink, for example!
	https://www.postalmuseum.org/wp-content/uploads/2017/02/Pop-It-In-The-Post-
	resource.pdf
	<u>Tesource.pur</u>
	Some young inventors!
	https://www.youtube.com/watch?v=XiuU1mlFeEc
	A website devoted to young inventors and their inventions
	https://www.littleinventors.org/
	An amazing 'invention'- a Rube Goldberg machine.
	https://www.youtube.com/watch?v=qybUFnY7Y8w
	https://www.youtube.com/watch:v=qybornr/raw
	And some more about Rube Goldberg, with a few ideas for making your own Rube
	Goldberg machine.
	https://tinkerlab.com/engineering-kids-rube-goldberg-machine/
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Art / DT

Art/DT Planning: Year 4

Inventors and inventions

Light in Art:

With the invention of neon lighting in 1910 came a new wave of artistry that began to appear in cities across the world.



It became a form of sculpture in the 1960's during the Pop Art Movement and since then has grown in popularity, sometimes taking up whole galleries as installations!



Design Your own Neon Art!



Using gel pens or neon markers draw your own neon inspired artworks. You could create a neon sign, poster or create your own patterns or doodles.!



Say Cheese!

Photography revolutionised the world of art! Portraits and landscapes could be captured in a moment. As an art form it has been used to capture unusual shapes and shadows in our environment and tell visual stories. Camera phones can be used to explore this wonderful artistic invention. Can you use a camera and take a photograph of something that inspires your arty skills? Here are some ideas!

https://clickitupanotch.com/photographyfor-kids/

Micro photographs!

Take a picture of a toy, plant or textured surface! What patterns, shapes and shadows can you find?



Tell a visual story!

Use toys, objects and your imagination to tell a story using snapshots or video!



Become an animator! <u>https://www.tate.org.uk/kids/make/art-</u> <u>technology/be-animator</u>

Stained Glass Candle Holder!

Stained glass was invented in 675 AD! Recycle old plastic bottles to make beautiful candle holders or sculptures using felt tips!



Become an Inspiring Inventor: Design and Draw your own Invention!

<u>Lonnie G Johnson</u>

Lonnie G Johnson is an African American engineer who worked for NASA's Jet Propulsion Laboratory. During his time at NASA, Johnson worked on the Galileo mission to Jupiter, the Mars Observer project, and the Cassini mission to Saturn. He earned multiple awards from NASA for his spacecraft control systems. But Johnson is possibly best known for inventing the Super Soaker water gun! How about inventing a new toy? Draw a design for a toy that you would like to play with. It might be something that hasn't even been invented yet! It might be something that floats, spins, rolls or flies! Follow this link for some ideas for what you could make!

https://www.youtube.com/watch?v=WDnCj1s3Qjo



Dr. Patricia Bath.



https://www.youtube.com/watch?v=gcE_QMTBN W4

Bath's laser tool has helped restore or improve vision in patients worldwide. In 1981, Bath invented the surgical tool that made her famous: the Laserphaco Probe, which she continued to perfect and later patented in 1988. The tool was used during eye surgery to correct cataracts, an eye condition that clouds vision and can lead to blindness. Cataracts usually affect older people. Bath's laser tool was more precise, less invasive, and less risky than previous devices, and has been used around the world. Draw and design your own device that could be used to help people with a disability. It could be a bionic limb, A tool to carry or pick up objects, a machine or robot help with day to day activities or to help them travel!

https://www.instruct ables.com/id/Plastic-Bottle-quotStained-Glassquot-Candlehol/

Leonardo Da Vinci:

Leonardo Da Vinci was a famous Italian inventor, artist, astronomer and scientist. Many of his ideas have become reality many 100's of years after his death. Learn more about his inspiring ideas below:



Build Your own Parachute!



Leonardo Da Vinci designed the first parachute 500 years ago! Follow the link below to build your own!

https://deceptivelyeducational.blogspot.com/2015/07/diy-parachutes-and-science-behind-how.html

Draw your own Sound Creature

Artists explore the use of technology more and more as new inventions bring new creative ways of expressing art. Follow this link to explore strange and exciting sounds and see what unusual creatures you can design by taking part in this interactive activity! <u>https://www.tate.org.uk/kids/make/art-technology/draw-soundcreature</u>

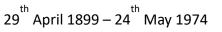


We now have a Dalmain Twitter Art page @dalmain_art for you to share your work with the rest of the school community! We would love to see what you have created to celebrate the gifted artists we have in the school. We will also be sharing ideas and inspirational arts and crafts so don't forget to take a look!

Music	<u>'Black made that'</u> - <u>https://www.youtube.com/watch?v=3FCFXht1P0o</u>
	An inspiring rap about Black Inventors.
	'Victorian Inventions': https://www.youtube.com/watch?v=N9g6kWoMHHs
	The Victorians were great at inventing things!
	<u>'A short ride in a fast machine' by John Adams</u>
	A piece of music that takes its inspiration from the sounds of machines.
	Click on this link to hear all about it. Can you keep in time with the woodblock in the
	piece?
	https://www.bbc.co.uk/programmes/articles/3xwJ8Zpzz44vNJIZfqtxbbX/short-ride-in-a-
	<u>fast-machine-by-john-adams</u>
	<u>'The Typewriter' by Leroy Anderson</u> -
	https://www.youtube.com/watch?v=nW8dGwa2zRw
	A piece of music for a typewriter. The invention of the typewriter meant that people
	could produce pieces of writing much quicker than before as they no longer needed to
	write by hand.
	(Concerts for Turntables' by Cabriel Brakefier
	<u>'Concerto for Turntables' by Gabriel Prokofiev</u> https://www.bbc.co.uk/programmes/articles/1SxcJK8NnWbKkVKZQCt95m5/concerto-for-
	turntables-and-orchestra-5th-movement-by-gabriel-prokofiev -
	The invention of the turntable or record player revolutionised how people could get
	access to music. People could buy a record and listen to their favourite music in their
	homes.
	Listen to this piece of music featuring turntables.
	'Theremin and instrument you play by not touching it'
	https://www.youtube.com/watch?v=LYSGTkNtazo
	In 1919 the Russian Leon Theremin invented this instrument by accident when he was
	working on a gas meter to measure the density of gas. He found that when his hand was
	near it he heard a high squeal and when it was further away he heard a lower squeal.
	Now it is played by musicians as an instrument.
	<u>'One moment, one people' - https://www.singup.org/singupathome/one-moment-one-</u>
	people
	An inspiring song to learn about working together and making positive connections with
	each other.

Duke Ellington







Improvisation is a way to **invent** your own music. Improvisation is where a musician takes a tune or piece of music and makes something up on the spot of his own, using that music as inspiration. This is often done in a style of music known as **'Jazz'**

Duke Ellington was the King of Jazz and Improvisation.

His real name was Edward Kennedy Ellington. He was given the name 'Duke' because of his good manners when he was a little boy. He started playing the piano when he was 7 years old. He was born in Washington DC in the USA.

Duke's grandparents had been slaves and like most African Americans at the time, Duke was a victim of racial prejudice at times.

Duke became a well-known jazz pianist and composer. Jazz is a type of American music that has roots in blues and ragtime. It has lots of improvisation and solos from different instruments.

Duke's jazz orchestra (or Big Band) 'The Washingtonians', played at the famous Cotton Club in Harlem. At the time, African Americans were allowed to perform at the club but not allowed in as customers. They even had to enter via a back door.

Duke and his big band wrote some of the world's most famous jazz pieces, including **'It don't mean a thing'.** Listen to this clip with all the fantastic improvisations from the band members. <u>https://www.youtube.com/watch?v=qDQpZT3GhDg</u>. What other music of Duke's can you find?

In an era of racism, Duke was proud of who he was, and this is reflected in compositions, such as 'Black and Tan Fantasy', 'Black, Brown and Beige' and 'Creole Rhapsody'. He said: "My men and my race are the inspiration of my work. I try to catch the character and mood and feeling of my people."

Bach 2-part inventions https://www.youtube.com/watch?v=jEVQ7yHgaSM

Johann Sebastian Bach was born in 1685 and died in 1750.

His Inventions were short piano pieces.

The Inventions start with a main melody or tune played in the right hand and then a second melody is introduced in the left hand.

The second tune is sometimes similar to the main melody and sometimes it is not, but the two melodies weave together beautifully.

P.E.	Laban Dance:
	What's on the Menu? Vegetable Soup! https://vimeo.com/428129052
	Trinity Laban dance teacher Wendy Steatham leads a movement session that explores 'cooking' verbs beginning with the letter 's' including slicing, shaking and stirring. Learn a short routine and add your own ending!
Extra Fun	Windrush Resources
	https://www.bbc.co.uk/newsround/44503109
	https://www.youtube.com/watch?time_continue=333&v=NME- 9ot2Lqw&feature=emb_logo
	https://www.bbc.co.uk/news/uk-43782241 https://www.youtube.com/watch?v=Q4SIP7EZze4
	https://www.youtube.com/watch?v=L7_vPyHGN5o