

Year 7 Homework Booklet

Half term 2

2023

Contents

English	Page 2
Maths	Page 12
Science	Page 15
Spanish	Page 18
Geography	Page 21
History	Page 25
Performing Arts	Page 28
PE	Page 31
Computing	Page 35
Creative Arts	Page 37
RE	Page 45



English

Amazing Women Who Have Changed The World

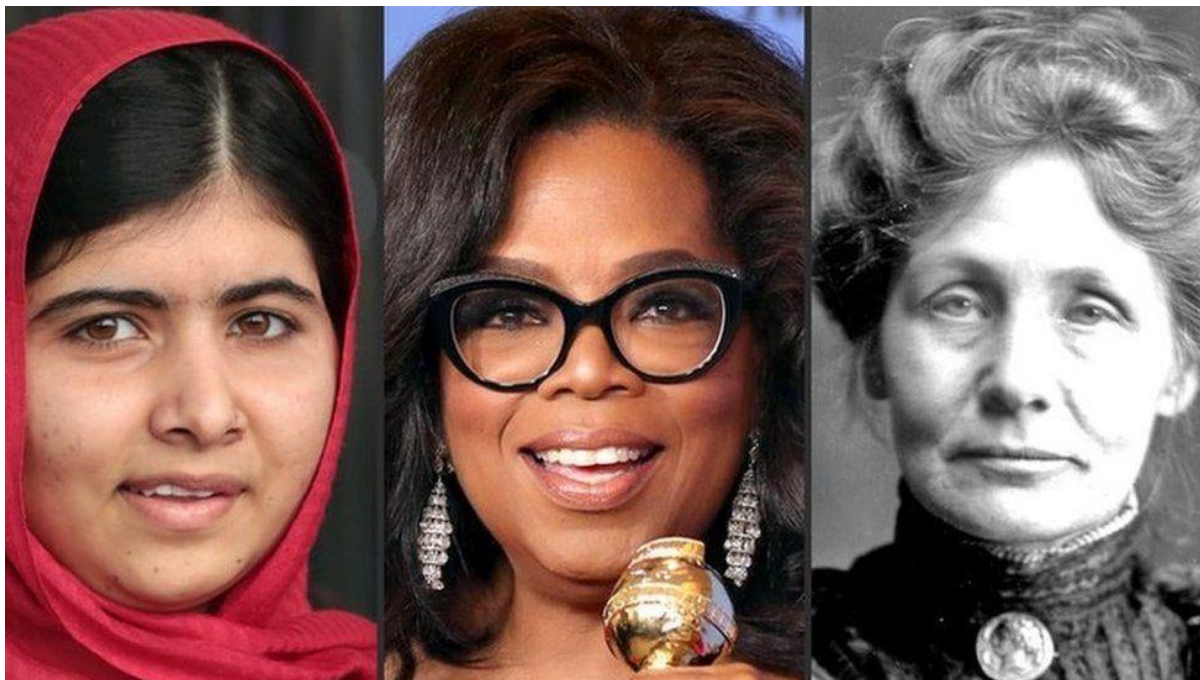


IMAGE SOURCE,VARIOUS

Newsround is taking a look back at the achievements of some women who have well and truly left their mark on history through amazing things that they have done.

Jane Austen: 1775 - 1817



IMAGE SOURCE,GETTY IMAGES

Let's start with a literary figure who has had more influence on British culture than she would ever have known during her relatively short life (she sadly died at the age of 41).

Jane Austen started putting pen to paper when she was just a teenager and went on to write six major novels which revealed what life was like in the late 1700s and early 1800s. Four of them were released within just four years of each other! That's some seriously rapid writing.

These were *Sense and Sensibility*, *Pride and Prejudice*, *Mansfield Park*, and *Emma*. *Northanger Abbey* and *Persuasion* were published after she died - and they are loved all over the world. There was actually a seventh and final novel, but sadly she never got to complete it.

While she was alive, she actually published her books anonymously, so nobody knew her as a writer. It is widely accepted that she never got the credit she deserved until after her death.

Now, just over 200 years since she died, millions of people carry Jane around in their pockets every single day. That's because her face was on the **£10 note** as a way of marking just what an enormous impact her work has centuries later.

Emmeline Pankhurst: 1858-1928



IMAGE SOURCE, GETTY IMAGES

Emmeline Pankhurst was a founding member of a group of women called the Suffragettes, who fought incredibly hard to get women the right to vote in the UK.

They often used violent and extreme tactics to do this, and Emmeline was no stranger to a prison cell because of this.

When World War One broke out, however, she recognised that she should help with the war effort, and she encouraged other Suffragettes to do the same.

While the men were away fighting in the war, many women like Emmeline took on jobs that men would traditionally do. They earned lots of respect doing this and it showed just how much women contributed to society - and, therefore, deserved the vote.

In 1918, a law was passed which allowed certain women the right to vote. This was a big step in equality between men and women - and many would argue that, for a large part of this, we have Emmeline to thank.

Marie Curie: 1867 - 1934



IMAGE SOURCE,PA

Marie Curie was a Polish scientist - and is probably one of the most famous scientists of all time. She was born in the Polish city of Warsaw, but later moved to France where she made an incredible discovery which would change the world.

In France, she met her husband - a man called Pierre, who was also a scientist. Together, they built on work done by previous scientists and made discoveries which would earn them a Nobel Prize in 1903.

As if that wasn't enough, Marie went on to win another Nobel Prize in 1911. She was the first woman in history to win it.

So what was this amazing work? Well, the Curies made ground-breaking discoveries about something called radioactivity. Radioactivity happens when certain special chemical elements give off energetic particles when a part of them called their nucleus breaks down.

This all sounds rather technical, but through this work, the Curies announced the discovery of two new chemical elements - polonium and radium.

And why was that so important? Well, first of all, their work was used to develop something called radiotherapy, which is used to treat certain illnesses.

These discoveries were also really important in developing X-rays, which are vital in hospitals today. It also meant that during World War One, Curie was able to develop a portable X-ray unit that could be used near the battlefield. So if you ever find yourself in hospital having an X-ray, you now know who you should be thanking.

Kamala Harris: 1964 - present day



IMAGE SOURCE, GETTY IMAGES

One woman whose name you will probably have heard many times over the last two years is Kamala Harris.

That's because she made history back in November 2020 when she became the first woman vice president of America and the first black and South Asian American to take on that job.

In 2019, she launched her own campaign to become the Democratic Party's nominee, which means Harris put herself forward to be selected by the Democratic party to stand as president. While she did not win the presidential race, she was chosen by the Democratic candidate Joe Biden to be his vice

president and running mate in the 2020 election! The pair won and she inspired millions of girls and women all over the world.

On 20 January 2021, Harris was inaugurated as vice president alongside then president elect, Joe Biden. Kamala then became the most senior woman politician in US history.

She has spoken out on issues such as the **criminal justice system, police brutality,** and **racism.**

Like a lot of political figures, Harris has received both criticism and praise. But many feel Kamala has shown it's possible to thrive in male dominated environments.

Oprah Winfrey: 1954 - present day

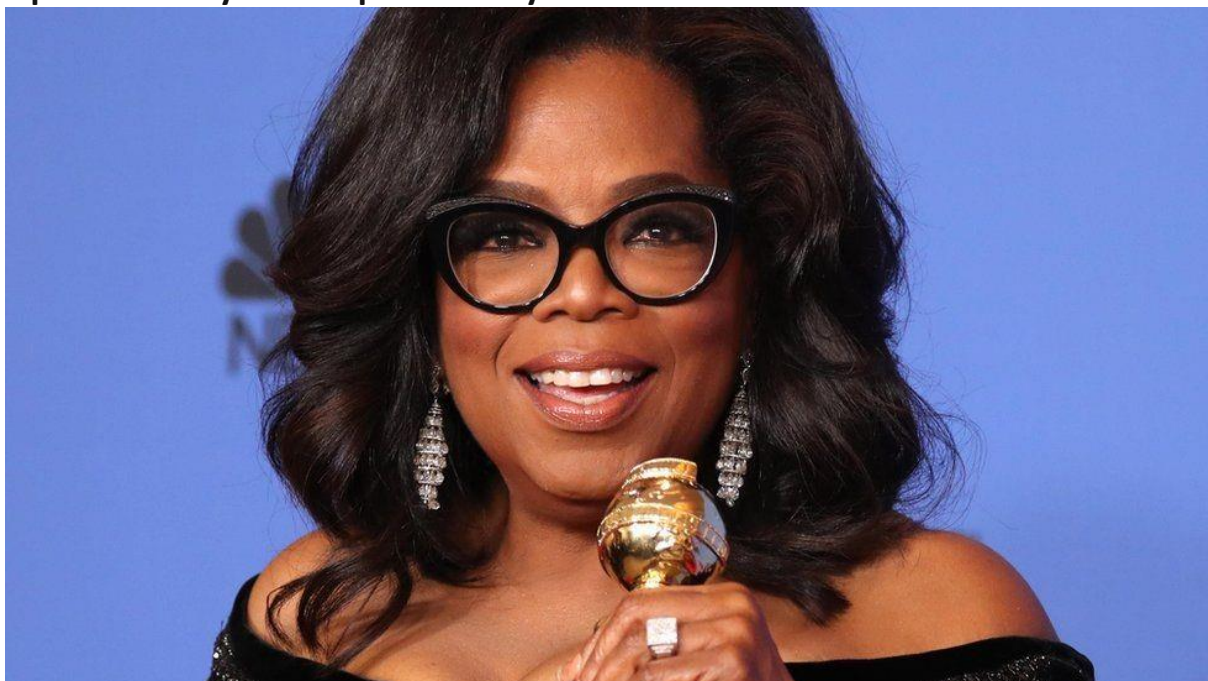


IMAGE SOURCE, REUTERS

One woman who is rarely away from the headlines is media legend Oprah Winfrey.

She started off her TV career when she was just a teenager, becoming the youngest person - and first African-America woman - to read the main news on a channel in the city of Nashville in America at the age of 19.

Now, she is the one of the world's most famous and most-loved interviewers.

She first became famous in 1986 with the Oprah Winfrey Show. It ran for 25 years before she turned her success into her own TV channel - the Oprah Winfrey Network.

She has also done a huge amount of charity work, including setting up two of her own foundations and donating millions of her own money.

Some people think that after giving powerful speeches over the years and her charitable work, she should run to be the next US president. Whether or not she will do that, only Oprah knows.

Jessica Ennis-Hill: 1986 - present day



IMAGE SOURCE, REUTERS

Many of us will have sports stars who we massively look up to. Jessica Ennis-Hill is one of those stars **who inspired millions of people** during the London 2012 Olympics.

She first got into athletics at school and took home her first official medal from the Commonwealth Games in Australia, back in 2006. This was to be the first of many medals to come and just three years later, she got her first gold medal in the 2009 World Championships in Germany.

But it was the London 2012 Olympics that really secured her spot in the history books.

Jessica was named as the main face of the Games in the run-up to the Olympics, so she starred in adverts and lots of campaigns promoting the event. Her face was plastered on billboards and screens up and down the country. So you'd have thought the pressure might have got to her - but not a bit of it. Jessica went and won gold in the heptathlon, before going on to win silver in the Rio Olympics just four years later.

Malala Yousafzai: 1997 - present day



IMAGE SOURCE, GETTY IMAGES

Malala became one of the most famous schoolgirls in the world.

As a young girl of 11, the Pakistani student wrote an anonymous diary about what life was like under the rule of an extreme group called **the Taliban** in north-west Pakistan.

In the diary, she talked about how she wanted to stay in education and about how girls should be able to go to school. The Taliban wanted to ban girls' education. Lots of people read the diary all over the world and she became well-known for fighting for her right to an education.

But the Taliban didn't like this. Because of what she said in her diary, in October 2012, she was shot by their soldiers - but she survived the attack. The world was appalled by what happened to her and Malala quickly won the support of millions more people.

At 14, she became the youngest person ever **to win the Nobel Peace Prize**. When she received it, she joked that she was probably the first winner who still fought with her younger brothers!

She has gone on to write books, graduate from university and continues to campaign for girls' rights all over the world and inspire many generations.

Homework:

Read this article over the next half term. Highlight at least three key words or language devices for each woman that you have read about and summarise what you have learnt about each woman in no more than five lines. Be ready to discuss what you have learnt.

Your English teachers will tell you when we will discuss it.

Please note, this does not have to all be completed in the first week or two.



Maths

Public



NGA Maths Homework Page

Florence Nightingale

Florence Nightingale is most famous for her role as a nurse. She was born on 12 May 1820 in Florence, Italy and died 13 August 1910 in Mayfair London. During the Crimean war, which raged in Turkey between 1853 and 1856, she worked at the military hospitals where British troops were treated. She became known as the 'lady with the

lamp', who made her rounds at night to look after injured soldiers. After the war, Florence Nightingale pushed to improve military hospitals, which until then had been dirty and disorganised. It was a major achievement: women in Victorian Britain were not expected to do this sort of work, and Florence had to fight hard to be taken seriously by the authorities.

Although Florence Nightingale is famous as a nurse, you might not know that the main tool she used in her campaign to reform (improve) hospitals was statistics. Statistics is an area of mathematics in which numbers that describe the real world are collected and then analysed to see what we can learn from them. Florence had been shocked by the conditions she had found in the military hospitals in Turkey: there were no blankets, beds, furniture, food, or cooking utensils, and there were rats and fleas everywhere. Florence was unhappy about the appalling lack of cleanliness and hygiene, but also about the fact that no one had properly organised the medical records. Even the number of deaths was not accurate; hundreds of men had been buried, but their deaths were not recorded.

Public

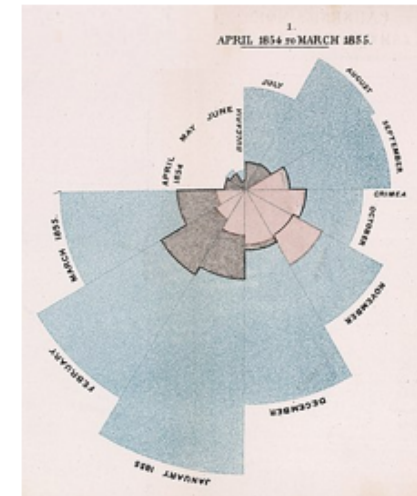
Florence carefully recorded statistics such as numbers and causes of deaths, and found that the unsanitary conditions, which could lead to diseases such as cholera and typhoid, killed more soldiers than actual war-wounds.

After the war Florence Nightingale set about persuading people that a hospital reform was necessary, using her statistics and the help of the statistician William Farr. It can be hard to get people to look at and understand long lists of numbers - and this is where one of Florence's brightest ideas came in. Like other statisticians at the time, she realised that the best way to get across statistical information is to use pictures. She invented what are called *polar area graphs* — you can see an example below.

Reading task:

Read the text about Florence Nightingale and answer the following questions:

- 1) List the multiples between 50 and 100 for the day Florence was born.
- 2) How old was Florence when she died?
- 3) How many months on the Polar Area Graph has a prime number as the last day of that month?
- 4) Which area of mathematics Florence used to improve the conditions in the hospital?



Public

NGA Maths Homework Page

Hegarty Maths homework record

Due date	
Clip Number	
Title	
Percentage correct	
Teacher initials	

Due date	
Clip Number	
Title	
Percentage correct	
Teacher initials	

Due date	
Clip Number	
Title	
Percentage correct	
Teacher initials	

Due date	
Clip Number	
Title	
Percentage correct	
Teacher initials	

Due date	
Clip Number	
Title	
Percentage correct	
Teacher initials	

Due date	
Clip Number	
Title	
Percentage correct	
Teacher initials	

Public



Science

The Radium Girls

Charlotte Richards tells us the story of the Radium Girls

Radium glowed with promise - lauded by the cosmetics and health industries it was a tonic, a pick me up - not to mention a serious medicine. The 'Radium craze' saw the radioactive material used in over the counter products available to all who could afford it... but all that glitters is not Gold.

Radium

'My beautiful Radium', Marie Curie called the element she discovered in 1898, she was enchanted by its radiant blue light and rarity, it was able to kill cancers and treat gout, it was the new craze in health spas - claiming to restore vitality and beauty; however these treatments were strictly for the rich — gram for gram, Radium was the most expensive substance on Earth costing around the equivalent of £1.5 million per gram today.

Radium-226 decays slowly, it's half-life (time taken for half of a sample to undergo radioactive decay) is 1,600 years, steadily emitting alpha particles (Helium nuclei) and decaying into Radon gas. Alpha particles may only have a penetrating power of around 5 cm in air and be stopped in their tracks by a piece of paper but they are heavily ionising due to their strong positive charge - tearing electrons off of atoms causing radiation burns and tissue damage and mutating DNA within cells causing cancers. Easy enough to protect against if the correct precautions are taken however in its heyday Radium's 'perpetual sunshine' was little understood and the inherent dangers of its radiation left in the dark.



'Undark'

The United States Radium Corporation produced a glowing 'undark' Radium paint, perfect for the military to use on watch and instrument dials. Hordes of young women were employed to paint the dials, the fine detailed work required them to continually 'point' their paint brushes - usually by using their lips. The shimmering radioactive dust would fill the air when the paint was mixed, ending up on the women's hair and clothes, they would leave the factory shimmering and shining. Some would purposefully paint themselves for fun or take evening gowns to the factory to make them sparkle and the pay was fantastic – roughly three times the average working girls' wage in any other factory for the war effort. Needless to say no health warnings were given to the dial painters on the factory floor.

Illnesses

One by one, the dial painters began, to fall ill. Their teeth fell out, their mouths filled with sores that seeped pus and would not heal, their jaw bones rotted and crumbled falling away from their skulls, their spines weakened and hips broke under their own weight and they suffered an apparently unstoppable anemia and its inexorable exhaustion. By 1924, nine of the dial painters were dead. They were all young women in their 20s, formerly healthy, with little in common except for those hours they spent, sitting at their desks at the factory, painting tiny bright numbers on delicate instruments.

On September 12, 1922, the strange infection that had plagued a radium dial painter named Mollie Maggia for less than a year spread to the tissues of her throat. The disease slowly ate its way through her jugular vein. At 5 p.m. that day, her mouth was flooded with blood as she hemorrhaged so fast that her nurse could not stop it. She died at the age of 24. Her doctors were flummoxed as to the cause of death; her death certificate, claimed she'd died of syphilis, something her former company would later use against her and other dial painters discrediting the girls as being of poor character.

More women started to die. And when they died, it was painful and bloody, resulting in body parts literally falling off them. The companies who used Radium paint remained silent. Using their huge profits, they would convince doctors to write different causes of death on their reports, often pointing to syphilis.

Explanation

Medical examiner Harrison S. Martland, was assigned to look into Mollie Maggia's case and that of the other Radium girls - but only after a male employee died of a similar illness - eventually realising that these illnesses were not mysterious at all but caused by the Radium in the 'undark' paint. When a person swallowed Radium, the body processed and used it in a way similar to Calcium - some went toward nerve and muscle function but most was deposited into the bones. But where Calcium, of course, strengthened and added to the mineral content of the skeleton, Radium did the opposite - it bombarded the girls' bones with alpha radiation from within, causing irreparable damage to their bones, joints, and bone marrow.

The legacy of the Radium Girls remains - and so does the radium that killed them. Mollie Maggia's cause of death was listed as syphilis, but her friends and family wanted to prove that she had died from Radium poisoning. Her body was exhumed, upon opening the coffin, they found that her remains were still faintly glowing. Their suspicions were confirmed - even in death, the Radium Girls continue to glow in their coffins.

Their sacrifice was not in vain. Dr. Martland's work attracted attention, and in the 1930s, several research institutes approached him for advice in safely handling even more dangerous elements such as Uranium and Plutonium for the Manhattan Project and radiation workers now have strict safety protocols to adhere to and there are laws concerning the safety of employees while at work.



Comprehension and Reflection Questions

1. What is an alpha particle?
2. Why was the Radium so dangerous for the girls if its radiation can be stopped by a sheet of paper?
3. What was the importance of the Radium to the war effort?
4. Why do you think it took so long for the deaths & illnesses to be taken seriously and investigated?
5. How long will it take for the girls to be half as radioactive as they were when they were working in the factory (HINT: Think about the half-life of the Radium)

Extension Activities

Ideas for things to do next:

- Research modern applications of radioactivity - are there any unexpected uses?
- Find out about background radiation - how much radiation are we exposed to from natural sources?

Further Reading

Ideas for things to read next:

- Royal Society of Chemistry essay on the discovery of radiation
http://www.rsc.org/images/essay1_tcm18-17763.pdf
- Marie Curie ~ a biography
<https://www.mariecurie.org.uk/who/our-history/marie-curie-the-scientist>



Spanish

Day Of the Dead Celebrations Across Latin America

Many Latin American countries celebrate el Día de Los Muertos, or Day of the Dead, in November. During the Day of the Dead celebrations, people honour the loved ones who have passed, sharing positive memories and stories.

You can track Día de Los Muertos back to indigenous cultures hundreds of years ago. Pre-Columbian civilizations have practiced rituals celebrating the deaths of ancestors for as long as 2,500–3,000 years. Day of the Dead celebrations have morphed over the years to become the Latino tradition it is now. Decorative altars, colourful flowers, and delicious food are all part of the festivities.

Where Is The Day Of The Dead Celebrated?

Mexico is best known for its *Día de Los Muertos* celebrations which include pageantry, processions, and public display of altars to the dead. In the Andean regions of Ecuador, Peru, and Bolivia, families gather in cemeteries to remember ancestors and loved ones. They bring food offerings such as *colada morada*, a spiced fruit porridge made with Andean blackberry and purple maize. In addition, *guagua de pan* is another popular food, a bread shaped like a swaddled infant filled with cheese or guava.

In Bolivia, the *Día de las ñatitas*, or Day of the Skulls, is an ancient Bolivian ritual celebrated on November 9th. Skulls of ancestors are decorated with flowers and pampered with cigarettes, coca leaves, and other treats to bring good luck to the family.

El Día De Los Muertos In Guatemala

As October ends, flower stands spring up on every corner of Guatemala City. Kite vendors' displays sway in the brisk November winds, and marketplaces and cemeteries are full of multi-coloured flowers. Finally, on November 1st, families gather to celebrate All Saints Day and eat *fiambre*. It is a traditional salad-like cold dish that consists of assorted cold cuts, pickled vegetables, and meats. It is so complex that it can easily include 50 or more ingredients.

The most spectacular Day of the Dead celebrations in Guatemala occurs in the towns of Santiago, Sacatepéquez and Sumpango. Townspeople assemble giant kites or *barriletes gigantes*, reaching diameters of almost 30ft, made of bamboo rods and coloured paper ready to paint the sky. On November 1st, the famous Guatemalan kite festival takes place, and these giant kites with intricate designs attempt to take flight. Unfortunately, some of them never manage to leave the ground! Why do you think this might be?





Highlight the information which answer each question in the text, writing the question number at the side, then be ready to answer the question in your own words.

1. WHICH month does the celebration take place?
2. WHAT do people share during the celebration?
3. WHEN did people begin celebrating this tradition?
4. HOW do you know that the celebrations have changed over the years?
5. WHAT do families often take to the cemetery?
6. WHAT is a 'ñatita'?
7. HOW do Guatemalans 'paint the sky'?
8. WHY do you think some of the kites don't fly?



Geography

Yr7 Geography Homework – HT2 – Literacy
‘10 surreal destinations you won’t believe exist on Earth’

<p>1. Salar de Uyuni, Bolivia</p> <p>Frozen in the depths of winter, the world’s largest salt flat is transformed into a giant sky-reflecting mirror during rainy season (September-May). The pools left over from this monumental prehistoric lake create a shimmering, illusory horizon, making it one of the best places to visit in the world if you like a good trick shot or selfie.</p>	
<p>2. Northern Lake Baikal, Russia</p> <p>Another amazing lake, this one is located in southern Siberia and is the world’s largest freshwater bit of blue. The water round these parts freezes into sheets of turquoise ice in winter that might look more at home in Superman’s Fortress of Solitude. Temperatures can plummet to -19°C from December to February.</p>	
<p>3. Kuang Si Falls, Luang Prabang, Laos</p> <p>Already a top holiday destination for backpackers, the Laotian city of Luang Prabang is temptingly close to Kuang Si Falls, a three-tier splash spectacular with waters so clear and blue it’ll be hard to resist jumping straight in. Hike the trails around the area to escape the tour groups and find your own secret slice of paradise.</p>	
<p>4. Torres del Paine National Park, Patagonia, Chile</p> <p>Admire the amazing Andes and visit one of South America’s most beautiful National Parks. Get your llama legs on and go hiking over mountains loaded with snow and across glorious glaciers.</p>	

5. Grand Prismatic Spring, **Wyoming, USA**

Another watery beauty, this time in North America. This natural pool, with its rainbow-coloured waters, is found in Yellowstone National Park and is the third largest hot spring in the world.



6. Huacachina, **Peru**

Catch a glimpse of this impressive desert oasis, built in the 1930s around an existing watering hole. In true otherworldly style, keep your eyes peeled for a glimpse of the lake's legendary resident... a mermaid. Peru's also home to one of the Seven Wonders of the World, Machu Picchu and a brilliant holiday destination!



7. 'The Door to Hell', **Turkmenistan**

This is like a geyser (a hot spring that sends water shooting into the air), but it has been named 'Door to Hell' as it shoots gas into the air instead. This burning pool of lava in Turkmenistan's Karakum Desert looks just how you'd expect a gateway to the underworld to look: red and hot and steamy.



8. Zhangjiajie National Forest Park, **Hunan Province, China**

This looks like a set from a futuristic science fiction film, but this place actually exists. Ascend through the towering rock formations on a cable car and admire the otherworldly views from above. You would be forgiven for thinking the Zhangjiajie Park seems familiar as the ancient landscape inspired the Hollywood blockbuster *Avatar*.



9. Mount Rinjani, **Lombok, Indonesia**

A couple of days of tough climbing is well-rewarded at the summit of Mount Rinjani, the second highest active volcano in Indonesia, with this spectacular view. A crater lake, affectionately known as 'Child of the Sea' by locals, sits pretty at the top of this epic climb.



10. Marble Caves, Patagonia

Patagonia is known to many as the beginning of the end of the world, and it's here where you'll find landscapes like no other. One of Patagonia's most surreal sites is found at the centre of General Carrera Lake, also known as Lake Buenos Aires. Here, you'll find the Marble Caves, the Marble Cathedral and Marble Chapel, named so for their domed ceilings and reverential atmosphere. It is so remote it is only accessible by boat.



<https://www.skyscanner.net/news/10-amazing-places-you-won-t-believe-exist-earth>



History

Yr7 HT2 Homework reading – Life in the monastery



What was a Monastery?

A monastery was a building, or buildings, where people lived and worshiped, devoting their time and life to God. The people who lived in the monastery were called monks. The monastery was self contained, meaning everything the monks needed was provided by the monastery community. They made their own clothes and grew their own food. They had no need for the outside world. This way they could be somewhat isolated and could focus on God. There were monasteries spread throughout Europe during the Middle Ages.

Why were they important?

The monks in the monasteries were some of the only people in the Middle Ages who knew how to read and write. They provided education to the rest of the world. The monks also wrote books and recorded events. If it wasn't for these books, we would know very little about what happened during the Middle Ages.

The Monks Helped People

Although the monks were focused on God and the monastery, they still played an important part in the community. Monasteries were a place where travellers could stay during the Middle Ages as there were very few inns during that time. They also helped to feed the poor, take care of the sick, and provided education to boys in the

local community.

Daily Life in the Monastery

The majority of the monk's day in the Middle Ages was spent praying, worshiping in church, reading the Bible, and meditating. The rest of the day was spent working hard on chores around the Monastery. The monks would have different jobs depending on their talents and interests. Some worked the land farming food for the other monks to eat. Others washed the clothes, cooked the food, or did repairs around the monastery. Some monks were scribes and would spend their day copying manuscripts and making books.

Jobs at the Monastery

There were some specific jobs that were present in most monasteries in the Middle Ages. Here are some of the main jobs and titles:

- **Abbot** - The Abbot was the head of the monastery or abbey.
- **Prior** - The monk that was second in charge. Sort of the deputy to the abbot.
- **Lector** - The monk in charge of reading the lessons in church.
- **Cantor** - Leader of the monk's choir.
- **Sacrist** - The monk in charge of the books

The Monks Vows

Monks generally took vows when they entered the order. A part of this vow was that they were dedicating their life to the monastery and the order of monks they were entering. They were to give up worldly goods and devote their lives to God and discipline. They also took vows of poverty, chastity, and obedience.

Interesting Facts about the Middle Age Monastery

- There were different orders of monks. They differed on how strict they were and in some details on their rules. The main orders in Europe during the Middle Ages included the Benedictines, the Carthusians, and the Cistercians.
- Each monastery had a centre open area called a cloister.
- Monks and nuns were generally the most educated people during the Middle Ages.
- They spent much of their day in silence.
- Sometimes monasteries owned a lot of land and were very wealthy due to the tithes of the local people.
- A scribe may spend over a year copying a long book like the Bible



Performing Arts

THE BUILDING BRICKS OF MUSIC

“Where words fail, music speaks.”

Hans Christian Andersen

Music is made up of many different things called elements. They are the building bricks of music. When you compose a piece of music, you use the elements of music to build it, just like a builder uses bricks to build a house. If the piece of music is to sound right, then you have to use the elements of music correctly. So...

What are the Elements of Music?

PITCH means the highness or lowness of the sound. Some pieces of music need high sounds and some need low, deep sounds. Some have sounds that are in the middle. Most pieces use a mixture of pitches.

TEMPO means the fastness or slowness of the music. Sometimes this is called the speed or pace of the music. A piece might be at a moderate tempo, or even change its tempo part-way through.

DYNAMICS means the loudness or softness of the music. Sometimes this is called the volume. Music often changes volume gradually and goes from loud to soft or soft to loud. A ‘**crescendo**’ means to gradually get louder and a ‘**diminuendo**’ means to gradually get softer.

DURATION means the length of each sound. Some sounds or notes are long, some are short. Sometimes composers combine long sounds with short sounds to get a good effect. The differing duration of notes form a ‘**rhythm**’.

TEXTURE refers to how many instruments are playing. If all the instruments are playing at once, the texture is thick. If only one instrument is playing, the texture is thin. You can build up the texture from thin to thick or reduce it from thick to thin to create interest.

TIMBRE refers to an instrument’s sound also known as it’s tone colour. For example, a metal instrument sounds different from a wooden one, and hitting the skin of a drum sounds different from blowing a recorder.

SILENCE is as important as sound in music. It is used for taking a breath known as “**rests**”. It can also be used for dramatic purposes, for example in horror music when a silence precedes a ‘jump scare’ to

create tension.

MELODY is a sequence of single notes that is musically satisfying. It is also called the 'tune'. It is usually the most memorable aspect of a song and one that the listener remembers.

HARMONY is what accompanies a melody. It is the result created when more than one note is played at the same time. Another word for harmony is the '**chords**': two or more notes played together that sound nice.

Questions:

1. Explain what the elements of music are and what their function is.

2. Pick two words (in bold) and describe what they mean.

3. In your favourite song or piece of music explain how the elements of music have been used. Use some of the key elements in red to help.



PE

The dust had not long settled on [England's 3-2 defeat to Belgium](#) and [Lucy Bronze](#) was already relishing the challenge of beating the Netherlands and Scotland in December as the players chase Nations League – and Olympic Games – qualification.

Only the top team in each Nations League group will qualify for next year's finals, with the winners of the semis then securing a place at the Olympic Games.

Tuesday night's 3-2 defeat to Belgium leaves them with an uphill battle as they are now three points behind the Netherlands and one below Belgium, with two games remaining and both teams having superior head-to-head records after their victories over the Lionesses.

But Bronze was quick to stress: "We still have a good chance. We play our next game [against the Netherlands at Wembley](#), a stadium where we like to step up and a team we played quite recently.



Chelsea team-mates Millie Bright and Jess Carter celebrate with Fran Kirby after she marked her return to England's starting line-up with a goal.

"We'll put this game to bed, analyse it properly and the mistakes we made and we'll look forward to playing Netherlands and Scotland, which are two really tough games. We've left ourselves with a bit more to do but it's not impossible."

It was Bronze who had pulled England level with an impressive header before Fran Kirby – making her first England start in more than a year – made it 2-1.

A sloppy pass deep in Belgium's half just before the interval allowed the hosts to counter and Tessa Wullaert to equalise, before the captain secured the winner from the penalty spot with five minutes remaining.

Bronze said: "I think we created more chances than the last game but we were sloppy around the ball in general. The goals came from our loose passes and apart from that they didn't really create much.



England battled back to take the lead before Belgium equalised and eventually won the game

"Particularly in the first half, we had a few chances to put the game to bed and could have been a bit more clinical in front of goal."

"It was unfortunate to concede a penalty at the end and that got them ahead again and we just couldn't get the ball across the line in the last half hour."

When asked why they were sloppy on the ball, Bronze continued: "I don't know. In the other game, it was almost the opposite. We were so good on the ball but just didn't create chances. I think it's one of those things, we'll have to do a lot better. It was similar to the game against the Netherlands where we gave the ball away too easily. I guess it's just something we will have to work on collectively and individually."

Questions:

What was the final score of the game?

Who scored the goals?

Who was in the lead after half time?



Computing

Year 7 – The History of Computing – Ada Lovelace

Most wealthy women of the 1800s did not study math and science. Ada Lovelace excelled at them—and became what some say is the world's first computer programmer.

Born in England on December 10, 1815, Ada was the daughter of the famous poet Lord George Byron and his wife, Lady Anne Byron. Her father left the family just weeks after Ada's birth, but her mother insisted that her daughter have expert tutors to teach her math and science.

When she was 17, Ada met mathematician and inventor Charles Babbage at a town party. She was fascinated by his Difference Engine, an early version of the calculator. He soon became her mentor.

In 1835, Ada married William King, who became the Earl of Lovelace three years later, making her the Countess of Lovelace. They had three children, and even though most wives and mothers of the time worked only in the home, Ada Lovelace continued her work with Babbage.

In 1843, Babbage was developing the Analytical Engine, a more complicated version of the Difference Engine. He asked Lovelace to translate French text from his engineer into English. Lovelace not only translated the notes but added her own, signing them "A.A.L."

Some of those notes compared the design of the Analytical Engine to how weaving machines worked. Weaving machines follow patterns to make a complete design, and Lovelace imagined that the engine could also follow patterns—or codes—not only to calculate numbers, but to form letters, too. This is a very basic explanation of computer programming.

Babbage never received enough funding to complete the Analytical Engine, and Lovelace's notes were forgotten. But in 1953, her notes were republished in a book about digital computing that showed how computers work by following patterns. It turns out that long before the first computer was invented, Lovelace had come up with the idea for a computer language.

Lovelace died on November 10, 1852, more than a hundred years before her notes were rediscovered. But because of her advanced way of thinking, she's often considered the first computer programmer. In fact, in 1979, the U.S. Department of Defence named a new computer language "Ada" in her honour.



Creative Arts

CREATIVE ARTS

SUBJECT	HOMEWORK 1		
TEXTILES	Classifying Materials by their Properties and Uses Complete this chart with a list of textile products found in your home. Next to each product, list the properties and uses of each item. Use the word bank below to help you.		
	Textile Product	Properties	Uses
	Dishcloth	Absorbent, easy to wash	Cleaning
	Curtains	Insulating, warm	Decoration, blocks out sun & light, Keeps room dark, keeps heat in.
	Word bank	Word bank	Word bank
	Absorbent Insulating Easy to wash (easy care) Crease- resistant Hard- wearing Stretchy Soft Recyclable Expensive Tough	Thick Smooth Shiny Waterproof Textured Cool Cheap Transparent Spongy	Strong Fireproof Textured Decorative Breathable Expensive Stretchy Fluffy Protective

	Stiff		
D & T	<p style="text-align: center;"><u>Plastics</u></p> <p>Most plastics are produced by industry using water, oil (or coal or gas), air and salt. There are <u>two families</u> of plastics - <u>thermoplastics</u> and <u>thermosetting plastics</u>.</p> <p><u>Thermoplastics - Recyclable and Bendy</u></p> <ol style="list-style-type: none"> 1) Thermoplastics are <u>recyclable</u>. 2) They <u>don't resist heat</u> very well, so they can be ground down, melted and re-used- very important in today's society of increasing waste. 3) Thermoplastics are easily <u>formed</u> into shapes. 4) A <u>moulded</u> shape can be <u>reheated</u>, and it will return to its <u>original state</u> the material is known as having plastic memory. 5) Examples of thermoplastics: <u>acrylic</u>, <u>ABS</u>, <u>polystyrene</u> and polyethylene (<u>polythene</u>) <p><u>Thermosetting plastics-Non-Recyclable and (usually) Rigid</u></p> <ol style="list-style-type: none"> 1) These types of plastic are <u>non-recyclable</u>. 2) They <u>resist heat and fire</u> so are often used for <u>electrical fittings</u> and <u>pan handles</u>. 3) These types of plastic undergo a <u>chemical</u> change when heated (unlike thermoplastics) to become hard and rigid. They're not used in schools very often. 4) Examples of thermosetting plastics: <u>melamine-formaldehyde</u>, <u>polyester resin</u>, <u>epoxy resin</u> and <u>urea-formaldehyde</u>. <p><u>Questions:</u></p> <ol style="list-style-type: none"> 1; Name the two Families of plastic? 2; What happens to a moulded shape when it is reheated? 3; Name one Thermosetting plastic? 		



FOOD

Read the following recipe **Date of Practical:** _____

FRUIT SALAD

Ingredients

Please bring small amounts of ingredients (choose from)

- 1 apple
- 1 pear
- 1 banana
- 1 kiwi
- 1 orange
- A few grapes
- A few strawberries
- A few blueberries
- Half a melon – can use this as a bowl

Named container to present your salad in and take it home in.

Learning how to:

Demonstrating the bridge and claw, knife skills, washing fruit. Melon balling, Kiwi flower, strawberry fans, threading a kebab stick.

Method

1. Collect all your equipment from the table.
2. Set up your chopping board with your damp cloth underneath.
3. Wash all fruit.
4. Prepare fruit and add to your container. Using the bridge and claw cutting methods.
5. Present your fruit salad attractively.
6. Combine all your ingredients together **in your container.**

The melon can be used to make into a bowl or basket (optional).

Have a go at preparing a mango, passion fruit, kiwi at home first. Skip through this clip see how to prepare every fruit!

<https://www.youtube.com/watch?v=VjINuQX4hbM>

Marks up!


Do a little research to get ideas for your fruit salad.

Google: posh fruit salad

Fruit salad kebabs

Fruit salad rainbow

Melon basket

<p>FOOD</p> 	<p>Read the following recipe <u>Date of Practical:</u></p> <hr/> <p>Crumble</p> <p>Ingredients</p> <p><i>Bring an ovenproof dish to make/take your crumble in.</i></p> <p><i>Please bring the following ingredients</i></p> <p>100g plain flour</p> <p>50g butter</p> <p>50g oats</p> <p>25g sugar</p> <p>Fruit: your choice, stew at home if needed (cooking apples or rhubarb will need stewing: peel and chop, add to a saucepan, tbsp of sugar and 4 tbsp water then simmer gently until soft).</p> <p>2 apples (slice in the lesson)</p> <p>2 plums (slice in the lesson)</p> <p>Raspberries (summer)</p> <p>Blackberries (winter)</p> <p>Blueberries (summer)</p> <p>Strawberries (summer)</p> <p>Chop the fruits into big chunks</p> <p>Note: other flavours to add to the crumble topping: nutmeg, cinnamon, vanilla, different sugars, honey. Fruit ideas: stewed fruits, tinned fruits, frozen fruits also work well. Try to choose seasonal fruits when possible.</p> <p>Named container to present your salad in and take it home in</p> <p>If you want to find out more about CREATIVE CAREERS https://www.bbc.co.uk/bitesize/articles/zfrq92p</p> <p>Read the following recipe <u>Date of Practical:</u></p> <hr/> <p>SCONE BASED PIZZA</p> <p>This is a savoury scone base which we use for 1hr practical lessons as opposed to making bread with yeast.</p> <p>Ingredients</p> <p><i>Please bring the following ingredients</i></p> <p>For the dough:</p> <p>150g self-raising flour</p> <p>1 tsp salt</p> <p>25g butter</p> <p>1 egg</p> <p>50 mls milk</p> <p>For the topping:</p> <p>50g cheddar cheese (grated) or mozzarella</p> <p>2 tbsp tomato ketchup and 2 tbsp tomato puree or 3 tbsp passata (pizza topping sauce)</p> <p>Any three of the toppings below (prepared as much as possible at home please)</p> <p>Named baking tray and foil to cook your pizza on and take it home on</p> <p>Learning how to:</p> <p>Consolidates rubbing-in method, shaping dough, using the oven, vegetable preparation.</p>
--	---

	<p><u>Method</u></p> <ol style="list-style-type: none"> 1. Collect all your equipment. Preheat the oven to 200°C. Grease baking tray. 2. Weigh the flour and sieve into a mixing bowl with the salt. 3. Measure the butter then rub into the flour. 4. Measure the milk in a jug then break 1 egg and whisk into the milk. 5. Stir the milk & egg into the flour & butter and mix to combine into a dough. 6. Shape the dough onto your baking tray. 7. Spread the tomato base onto the dough, add the grated cheese. 8. Prepare your toppings and arrange on top of the cheese. 9. Bake in the oven for 15 mins, until the crust is brown and the cheese is bubbling. <div data-bbox="512 712 995 1279"> <p>Pizza topping ideas (choose 3)</p> <p>Ham (just chop)</p> <p>Sweet corn (open tin and drain)</p> <p>Tuna (open tin and drain)</p> <p>Pepperoni (just chop)</p> <p>Peppers (slice, can go on raw or fry)</p> <p>Mushrooms (can go on raw, sliced)</p> <p>Sliced tomatoes (can go on raw)</p> <p>Pineapple (open tin and drain)</p> <p>Sliced onion (can go on raw or fry)</p> <p>Olives (go on from the jar/drained)</p> <p>Chilli peppers/jalapenos (remove seeds and finely chop)</p> <p>Chicken (will need to be cooked)</p> <p>(any other suitable topping)</p> </div>
--	---

ART: KS3 HW



<https://www.bbc.co.uk/bitesize/articles/z7thd6f>

Meet Tegan, 24, from Wiltshire. She works in London as an architectural apprentice for Gensler, a design and architecture firm.

What is your job?

Architecture is all about **designing buildings**. I do a lot! My job involves figuring out the needs of the client, how we translate that into design and then translating it back to the client. Sometimes I make **site models** for clients, and other times I might be sitting at the computer doing **3D models**, or **2D plans** and **hand sketches**.

What skills do you use in your work?

Knowing how to talk to **communicate** with people in the right way is very important. **Research** is also crucial because it informs the rest of your design decisions. **Time management** is critical because I've had to learn to juggle my coursework at uni, my job here at the office and my disabilities (arthritis and chronic migraines). Also, **presentation skills** - I had to do a big presentation for university recently.

What subjects did you study?

At **GCSEs** I did **Design & Technology**, and at **A-level** I did **History, Maths, Physics and Chemistry** (I dropped Chemistry). I got my A-levels and then went to university, but half way through my second year I got quite seriously ill, so I had to pause my studies. Instead of staying in bed recovering, I did an **Art A-level**. After getting back on my feet I finished my degree and now I'm doing my **masters degree**! My illness has left me with some long-term health issues but it hasn't stopped me achieving or doing the job I love.

What subjects do you draw on?

History and **Art** have been the most useful of the A-levels that I've done.

How did you get into your job?

My **lecturer** in my third year of uni **told me about the apprenticeship**, and I was attracted to the fact that this is such a huge firm, so there's worldwide opportunities to move, a wealth of knowledge and a research institute.

Was it a smooth ride?

No! When I started uni, if someone had told me what would happen with **my health** over the next six years, I wouldn't have believed them! I feel like there's good in it happening, because it's changed my perspective on what I'm doing and how I'm going to approach it. It's **made me far more sympathetic to the accessibility issues in architecture.**

Top tips

- I asked my teachers what A-levels they would recommend, but I wish I'd done a little bit more of my **own research**
- **Question everything** and start delving into topics and explore them - figure out what it is you like
- **Look after your health.** When you're at your healthiest you're performing your best.

After completing your education and training, there are many careers open to architects, for example designing new buildings and the spaces around them, and working on the restoration and conservation of existing buildings.

What to expect if you want to be an architect

- **Architect average salary:** £27,500 to £90,000 per year
- **Architect typical working hours:** 35 to 40 hours per week

What qualifications do you need to be an architect?

You could get into this role via a university course, an apprenticeship or working towards the role.

ANSWER THE FOLLOWING QUESTIONS

<https://forms.office.com/Pages/DesignPageV2.aspx?origin=NeoPortalPage&subpage=design&id=WnSRoNi3ek2yphNZBT1FECFv4HeDi3pLoWrqdE000dhUQTc0SDJRODMxREhWUVU5NjVTTjJBMUVGRy4u>

What does Tegan go to help show her clients her design ideas?

Tegan says the following skills are most useful: Communication; Research; Time management and Presentation skills. Choose the one YOU think is most important and say why?

Tegan studied History, Maths, Physics and Art at A Level. Which did she find most useful for her career as an Architect?

What company is Tegan doing her Architecture Apprenticeship with?

Tegan has given 'Three Top Tips'. Which one is the most important for you?



RE

Life of Jesus

KEYWORDS

Salvation = being freed from sins, and it's consequences (hell)

Incarnation = God becoming flesh

Miracle = an action or event that does not seem to be scientifically possible

Sin = something that breaks one of God's laws

Crucifixion = being killed on a cross

Resurrection = coming back to life

Messiah = a word used to describe Jesus, meaning that he was the saviour of humankind

Disciple = a follower of Jesus

Gentile = a person who is not Jewish

Faith = having complete belief in something, even without evidence

"For God so loved the world He gave his only Son, that whoever believes in Him shall not die but have eternal life." John 3:16

HISTORY

The land of Israel had been attacked and invaded since its creation.

From 63 BCE, the Romans were the occupying power. The Jewish people hoped for a saviour, a messiah, who would defeat their enemies and restore them to their homeland to live in peace under their own laws.

Expectations were high at the time of Jesus, who was himself Jewish. The Messiah was widely expected to be a prophet who would re-establish the line of King David on the throne in Jerusalem, site of the Temple of God, and bring all nations to God.

As the extraordinary events of his life unfolded, Jesus' followers started to think he could be the Messiah. When Jesus rode into Jerusalem on a donkey on Palm Sunday, there was much excitement at the possible arrival of a new king!

The early Christians found their Messiah in Jesus, who was not an earthly king or a warrior but a peaceful man; more amazing still, Jesus was someone whose life, words and deeds made people believe that he was actually God in the flesh, and the final and most important part of God's plan of salvation.



THE BASICS

- Jesus lived in the first century CE in an area which is now called Israel.
- The religion of Christianity did not develop until after the death of Jesus.
- Christians believe that Jesus is God incarnate (in human flesh).
- Christians believe that Jesus' teachings should be followed when making moral decisions – deciding right from wrong.

JESUS MIRACLES

Christians learn a lot about Jesus through the miracles he did, like walking on water, healing a blind man, and coming back from the dead!

- Miracles showed the love Jesus had for people. He did not want to see them suffering unnecessarily. For example, when he healed a people.
- Miracles provided examples for people to follow. This can be seen when Jesus healed the paralysed man because of the faith of his friends. This teaches us to have faith and help others.
- Miracles demonstrated the power he had, and for many it proved that he was God.

OPPOSITION TO JESUS

Jesus welcomed all types of people, even those that Jewish religious leaders considered to be sinners.

Some religious leaders thought that Jesus' teaching was wrong and that it was leading people astray. The Romans feared that he might start a political uprising, and that this would lead to great trouble—they were worried that they would lose their power. The leaders decided to have Jesus put to death.

Jesus knew that opposition to him was growing and that one of his disciples, Judas Iscariot, was turning against him.

Jesus gathered the apostles together for a meal, known as the Last Supper. He told them that his death was necessary because it would establish a new bond between God and humans. Jesus took bread and wine, blessed them, and shared them with his disciples. Christians remember this in Communion.

Later that night, Judas brought men to arrest Jesus, and Jesus was sentenced to death. He was crucified, or nailed to a cross. He died on the cross and was buried.

On the third day after that, a group of women went to Jesus' tomb and found the body gone. The Gospels tell that Jesus then appeared to one of the women, Mary Magdalene, and to the disciples. He spent 40 days on Earth after his Resurrection, or return from the dead, and then was taken up to heaven (called the ascension).



JESUS' TEACHINGS

Jesus began preaching when he was about 30 years old. He gathered a group of 12 followers, or disciples, called the apostles, who helped him spread his message.

He taught people to forgive others, to live a good life, and to honour God so they could enter God's kingdom (heaven).

He often taught by using parables, or short stories that illustrated his message.

Jesus' messages were designed to help people clearly understand how to live in the way that God wanted them to, and how to have a relationship with God. One of the most famous things that he said in this sermon was to "treat people as you want to be treated". This is known as the Golden Rule.

Questions

What is the golden rule?

Why did the Romans oppose (go against) Jesus?

How many disciples are there?

On the back of this page, make a mind-map of why Jesus' miracles are important