



**ST TERESA**  
*of* **CALCUTTA**  
Catholic Academy Trust

# Knowledge Organisers

**Year 7**

**Spring Term 2024**

**Name:** \_\_\_\_\_



# Instructions for how to use your Knowledge Organiser



After school, every day, you should learn new key knowledge from **TWO** subjects on your knowledge organiser each night. Your class teacher may set you specific tasks on Satchel One linked to the knowledge that you will be expected to learn. The timetable below tells you which subjects you should focus on each night. It doesn't matter if you don't have that particular subject on that day, just follow the timetable for your home learning. You should spend **half an hour** on each subject.

## TIMETABLE OF SUBJECTS

**Monday:** English and Geography

**Tuesday:** Science and Art / DT / Food

**Wednesday:** Maths and History

**Thursday:** RE and Computer Science

**Friday:** MFL and Music / Drama



This knowledge organiser outlines the key information from your lessons this Spring term.

Spend time consolidating this knowledge at home.

## How to learn knowledge from my knowledge organiser:

- Look at the work, cover it over, write it out again and check it.
- Look. Cover. Write. Check.
- Ask someone to test you and ask you questions about the topic
- Create mind maps on the topic
- Create flashcards on the topic
- Try writing out the key words or new vocabulary into new sentences
- Create a mnemonic
- Draw a diagram of the process
- Read further around the subject

# English Year 7 Spring Term: 'A Christmas Carol' by Charles Dickens



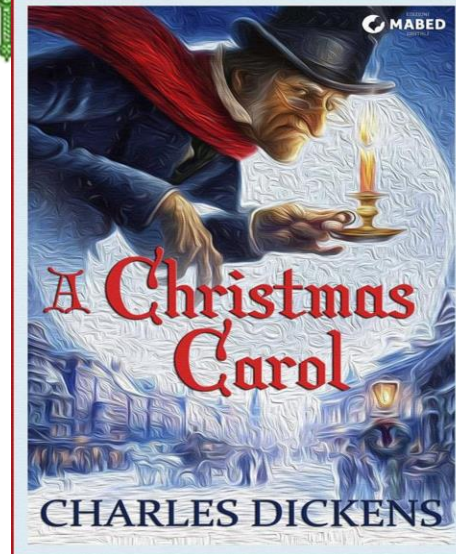
## Characters



- Scrooge
- Marley
- Bob Cratchit
- Fred
- Belle
- The Ghost of Christmas Past
- The Ghost of Christmas Present
- The Ghost of Christmas Yet to Come

## Context – Victorian Britain (1837 – 1901)

A Christmas Carol was written in 1843 at a time of great change in Victorian Britain. The industrial revolution was taking place and there was a sudden growth of the cities as moved from the countryside to the cities and many lived in poverty as the gap between the rich and poor widened. Workers had to toil for long hours and for little money. Children didn't go to school and worked long hours for a low wage to help support their families who barely had enough money to buy food. In the poorer areas of Britain's larger cities almost 1 in 5 children born in the 1830s and 40s had died by the age of five. There was no healthcare at this time and if you got ill and couldn't work, your whole family was at risk of death. For those who were unable to support themselves, there were the workhouses: these were not pleasant places to stay. Men, women and families were separated and those who were physically able were expected to work for their keep. During this period a small number of people became very wealthy and they lived in luxury with large houses, plenty of money, food and clothes. Their children didn't work and were educated.



## DICKENS: A CHRISTMAS CAROL, 1843

KEYWORDS	LANGUAGE	STRUCTURE	THEMES	CONTEXT
Moral	Metaphor	Novella	Greed	Industrial revolution
Gothic	Simile	Staves	Loneliness	Poverty
Responsibility	Verbs	Dialogue	Family	Christmas traditions
Consequences	Adjectives	Description	Money	Religion
Flashbacks	Contrasts	Narrator	Light and Dark	Victorian era
Regret	Exclamations!	Episodic	Goodwill	Social classes
Sympathy	Pathetic fallacy	The Transformation	Redemption	Social responsibility

### Why did Dickens write it and how has it impacted readers over time?

Christmas traditions became popular during the Victorian era and interested Dickens. The name 'A Christmas Carol' is linked to the fact that it has 5 staves, like a Christmas song or carol. Dickens had witnessed inequality in England and wanted to make a stand against the greed of the rich. He reveals the contrasts between how the rich and poor lived during the Victorian era. It was a very popular book when it was first released, and continues to be favourite around the world. Many of the quotes are regular English sayings 'Bah, humbug!' and 'Scrooge' means a tight person. Scrooge's transformation is very heart-warming and makes us believe that anyone can change for good. The novella is short and readers enjoy the three ghosts as well as the spooky, gothic atmosphere.

## Plot Summary

A Christmas Carol is a novella by Charles Dickens about Ebenezer Scrooge, an old man, who is well-known for his miserly ways. On Christmas Eve, Scrooge is visited by a series of ghosts, starting with his old business partner, Jacob Marley. The three spirits which follow, the Ghosts of Christmas Past, Christmas Present and Christmas Yet to Come, show Scrooge how his mean behaviour has affected those around him. At the end of the story he is relieved to discover that there is still time for him to change and we see him transformed into a generous and kind-hearted human being.

# Maths Year 7 Spring Term: Angles and Shapes

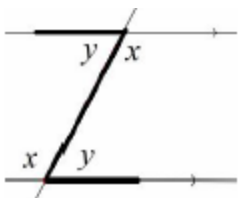


## Glossary

- Angles and Triangles
- Quadrilaterals
- Triangles and Polygons
- Perpendicular and Parallel lines
- Parallel Lines

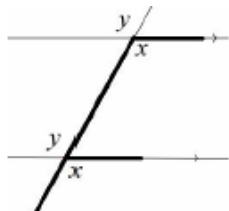
**Alternate angles are equal.**

They look like Z angles, but never say this in the exam.

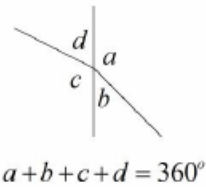


**Corresponding angles are equal.**

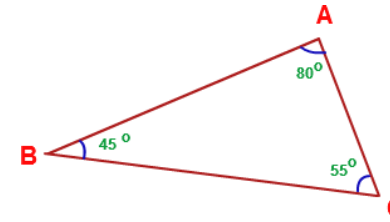
They look like F angles, but never say this in the exam.



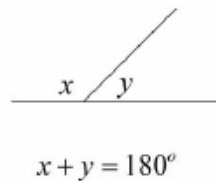
Angles around a point add up to  $360^\circ$



Angles in a triangle add up to  $180^\circ$ .



Angles around a point on a straight line add up to  $180^\circ$ .



Vertically opposite angles are equal



Names of Polygons

- 3-sided = **Triangle**
- 4-sided = **Quadrilateral**
- 5-sided = **Pentagon**
- 6-sided = **Hexagon**
- 7-sided = **Heptagon/Septagon**
- 8-sided = **Octagon**
- 9-sided = **Nonagon**
- 10-sided = **Decagon**

The formula for calculating the sum of interior angles is:

$$(n - 2) \times 180^\circ \text{ (where } n \text{ is the number of sides)}$$

## Key words

- Angle
- Degrees
- Right angle
- Acute angle
- Obtuse angle
- Reflex angle
- Protractor
- Vertically opposite
- Geometry, geometrical
- Parallel
- Alternate angles, corresponding angles
- Interior angle, exterior angle
- Regular polygon

## Mathswatch Clips

- G16 G17 G19
- G10



# Maths Year 7 Spring Term: Fractions, decimals and ratio



## Glossary

- Fractions
- Fractions and Decimals
- Ratio

$$\frac{3}{4} \text{ of } 32 = 32 \div 4 \times 3 = 24$$

$$\frac{3}{4} \div \frac{5}{6} = \frac{3}{4} \times \frac{6}{5} = \frac{18}{20} = \frac{9}{10}$$

Put in to ascending order :  $\frac{3}{4}, \frac{2}{3}, \frac{5}{6}, \frac{1}{2}$ .

Equivalent:  $\frac{9}{12}, \frac{8}{12}, \frac{10}{12}, \frac{6}{12}$

Correct order:  $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$

$\frac{2}{5}$  is an example of a mixed number.

$\frac{2}{3} + \frac{4}{5}$   
 Multiples of 3: 3, 6, 9, 12, 15.  
 Multiples of 5: 5, 10, 15.  
 LCM of 3 and 5 = 15

$$\frac{2}{3} = \frac{10}{15}$$

$$\frac{4}{5} = \frac{12}{15}$$

$$\frac{10}{15} + \frac{12}{15} = \frac{22}{15} = 1 \frac{7}{15}$$

## Key words

- Fraction
- Improper fraction
- Proper fraction
- Vulgar fraction
- Top-heavy fraction
- Proportion
- Mixed number
- Equivalent fraction
- Simplify, cancel, lowest terms

## Notation

- Mixed number notation
- Horizontal / diagonal bar for fractions

## Ratio

Simplify 60 : 40 : 100

$$\begin{aligned} &\div 10 \\ 60 : 40 : 100 \\ &\div 2 \\ 3 : 2 : 5 \end{aligned}$$

This could have been done in one step by dividing by 20.

Write 2 : 5 in the form 1 : n

$$\begin{aligned} &2 : 5 \\ &\div 2 \quad \quad \quad \div 2 \\ &1 : 2.5 \end{aligned}$$

Share £45 in the ratio 2 : 7

$$\begin{array}{r} 2 : 7 \\ \hline 5 \quad 5 \\ \hline 5 \quad 5 \\ \hline =10 \quad 5 \\ \hline 5 \\ \hline 5 \\ \hline 5 \\ \hline =35 \end{array}$$

$$45 \div 9 = 5$$

£10 : £35

Joy and Martin share money in the ratio 2 : 5. Martin gets £18 more than Joy. How much do they each get?

$$\begin{array}{r} 2 : 5 \\ \hline 6 \quad 6 \\ \hline 6 \quad 6 \\ \hline 6 \\ \hline 6 \\ \hline 6 \\ \hline =12 \quad =30 \end{array}$$

$$18 \div 3 = 6$$

£12 : £30

## Key Concept

FDP equivalence

F	D	P
$\frac{1}{100}$	0.01	1%
$\frac{1}{10}$	0.1	10%
$\frac{1}{5}$	0.2	20%
$\frac{1}{4}$	0.25	25%
$\frac{1}{2}$	0.5	50%
$\frac{3}{4}$	0.75	75%

$$\frac{3}{8} = 3 \div 8 = 0.375$$

$$0.36 = \frac{36}{100} = \frac{9}{25}$$

Mathswatch Clips  
 N35 N36 N37a/b  
 R1 R5  
 N32



# Science Year 7 Spring Term Biology: Reproduction

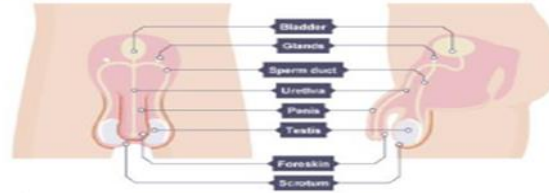


## Reproduction

Keyword	Definition
Egg Cell	The female sex cell (gamete)
Sperm Cell	The male sex cell (gamete)
Fertilisation	The fusing of the male and female sex cells.
Ovary	The female reproductive organ that releases egg cells.
Testes	The male reproductive organs which produce sperm cells.
Embryo	Tiny new human life which grows by cell division from a fertilised egg cell.
Gestation	The period between fertilisation and birth, also known as 'pregnancy'
Placenta	The organ that allows substances (such as oxygen) to pass between the mothers blood and baby's blood.
Amniotic Fluid	A fluid which surrounds the foetus and helps to cushion it.
Foetus	The unborn baby after around 8 weeks of pregnancy.
Menstruation	Where the lining of the uterus breaks down every month if the egg is not fertilised. Also known as the period.
Sexual Reproduction	Producing new organisms by the joining of two sex cells.
Asexual Reproduction	Producing new organisms from only one parent.

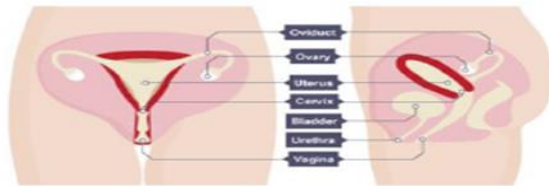
### The Male Reproductive System

The testes produce millions of male gametes (sex cells) called sperm. The sperm pass through sperm ducts, and mix with fluids produced by the glands. The penis passes urine and semen out of the male body. The urethra is the tube which carries the urine or semen.



### The Female Reproductive System

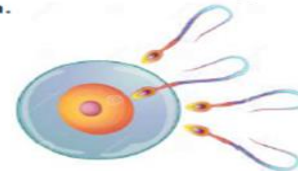
The two ovaries contain hundreds of undeveloped female gametes. These are called ova (one is called an ovum). Women have these cells in their body from birth. Each ovary is connected to the uterus by an oviduct, sometimes known as the fallopian tube. Every month, an egg develops, becomes mature and is released from an ovary.



- The uterus is where a baby develops until its birth.
- The cervix is a ring of muscle at the lower end of the uterus. It keeps the baby in place while the woman is pregnant.
- The vagina is a muscular tube that leads from the cervix to the outside of the woman's body.

### Fertilisation

Fertilisation is when a sperm cell and ovum fuse. Sperm cells are released into the female reproductive system during sexual intercourse (ejaculation). Only one sperm cell breaks through the cell membrane and enters the ovum.



### The Menstrual Cycle

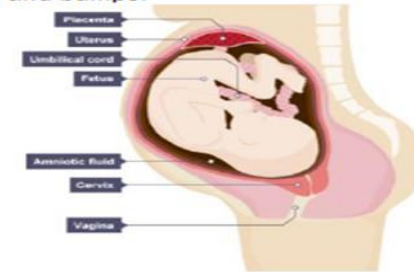
The menstrual cycle prepares the female body for pregnancy by causing eggs (ova) to mature and be released. The process lasts for 28 days.

- Days 1-5: • 'period' happens (menstruation), where uterus lining breaks down.
- Days 6-13: • Uterus lining builds up (thickens) to prepare for pregnancy. The egg (ovum) matures in the ovary
- Day 14: • Egg (ovum) released from the ovary and travels down the oviduct
- Days 15-28: • Uterus lining stays thick, in case the egg is fertilised

### Foetus Development & Placenta

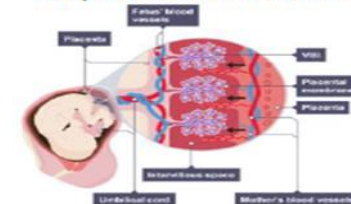
The foetus relies upon its mother as it develops.

- Protection against knocks and bumps.
- Oxygen
- Nutrients (food & Water)



The placenta is an organ responsible for providing oxygen and nutrients, and removing waste substances. It grows into the wall of the uterus and is joined by the foetus by the umbilical cord.

- Oxygen and nutrients diffuse from mother to foetus.
- Carbon dioxide and other waste substances diffuse across the placenta from foetus to mother.



### Further Reading:

<https://www.bbc.com/bitesize/guides/z9fgr82/revision/1>



# Science Year 7 Spring Term Chemistry: Elements, Compounds and Mixture



## Elements, Compounds, Mixtures

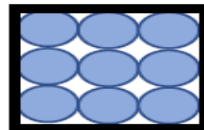
Keyword	Definition
Periodic Table	A table of all the known elements in order of their atomic number.
Group	Vertical columns on the periodic table
Period	Horizontal rows on the periodic table
Atom	The smallest piece of an element.
Element	A substance containing only one type of atom.
Compound	Two or more different elements which are chemically joined together.
Mixture	Two or more different elements or compounds which are not chemically joined together.
Chemical Reaction	A process in which one or more substances are changed into others, by their atoms being rearranged. Also known as irreversible reactions.
Physical Reaction	A process in which the physical properties are changed, but no new substances are made. Also known as reversible reactions.
Reactant	A substance that reacts together with another substance to form products during a chemical reaction.
Product	A substance formed in a chemical reaction.
Conservation of Mass	The total mass of the products in a chemical reaction will be the same as the total mass of the reactant.

The Periodic Table

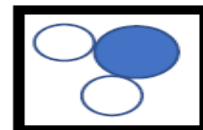
Metals Non-metals

Metals	Non-Metals
Shiny in colour, solids at room temperature (except mercury), high density, strong, malleable, good conductor of heat and electricity.	Dull in colour, can be solids, liquids or gases at room temperature, low density, brittle, poor conductors of heat and electricity.

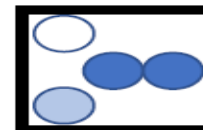
### Atoms, Elements, Compounds & Mixtures



This models an element. There is only one type of atom.



This models a compound. There are two different elements chemically combined together.



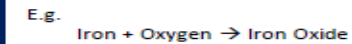
This models a mixture. There are two or more different elements which are not chemically combined.

### Chemical Reactions & Equations

The changes in a chemical reaction can be modelled using equations. In general we write:



The reactants are shown the left of the arrow, and the products are shown on the right of the arrow. The arrow tells us a chemical reaction has taken place.



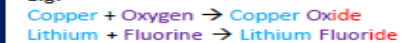
The iron and oxygen react together (reactants) to produce Iron Oxide (product).

### Naming Compounds

Metal + Non-Metal (which contain two elements)

- The **metal** always goes first.
- The ending of the **non-metal** changes to 'ide'.

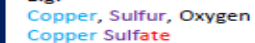
E.g.



To name compounds which have a metal, non-metal and oxygen (three or more elements)

- The **metal** always goes first.
- The ending of the **non-metal** changes to 'ate'.

E.g.



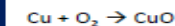
### Conservation of Mass

No atoms are created or destroyed in a chemical reaction. Instead, they just join together in a different way than they were before the reaction, and form products. This means that the total mass of the products in a chemical reaction will be the same as the total mass of the reactants.



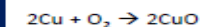
### Balancing Equations

A balanced equation gives more information about a chemical reaction because it gives the symbols and formulae of the substances involved.



The above equation is not balanced because there is one copper atom on both sides of the arrow, but two oxygen atoms on the left hand side, and only one on the right.

You need to adjust the number of units of some substances until you have equal numbers of atoms on both sides of the arrow. You cannot change the formulae of a substance (you can't change the small number).



### Further Reading:

<https://www.bbc.co.uk/bitesize/guides/zt2hqv4/revision/1>

<https://www.bbc.co.uk/bitesize/guides/z84wjsx/revision/1>

### Chemical & Physical Reaction

Chemical changes happen when chemical reactions occur. They involve the formation of new chemical elements or compounds.  
 E.g. Iron will react with oxygen to form Iron Oxide (rust).



Physical changes do not lead to new chemical substances forming. In a physical change, a substance simply changes physical state. E.g. A solid to a liquid.



# Science Year 7 Spring Term Physics: Earth and the Universe



## Earth and the Universe

Keyword	Definition
<b>Attraction</b>	When two or more things come together, eg the north pole of a magnet is attracted to the south pole of a magnet.
<b>Gravity</b>	The force of attraction between all objects. The more mass an object has, the larger the force of gravity it exerts.
<b>Magnetic Field</b>	Area surrounding a magnet that can exert a force on magnetic materials.
<b>Mass</b>	Amount of matter there is in something. Measured in kilograms, kg.
<b>Orbit</b>	An orbit is the path that an object takes in space when it goes around a star, a planet, or a moon.
<b>Repulsion</b>	When two or more things are forced apart, eg the north pole of a magnet is repelled by the north pole of another magnet.
<b>Season</b>	One of four times of the year (winter, spring, summer or autumn).
<b>Solar System</b>	The solar system consists of the Sun, with planets and smaller objects such as asteroids and comets in orbit around it.
<b>Star</b>	A large mass at the centre of a Solar System (if there are other bodies present) that produces heat and light, eg the star at the centre of our Solar System is called the Sun.
<b>Weight</b>	The force of gravity on an object. Measured in newtons, N.

### Further Reading:

<https://www.bbc.com/bitesize/topics/z8c9q6f>  
<https://www.bbc.com/bitesize/guides/zysbgk7/revision/1>  
<https://www.bbc.com/bitesize/guides/z3g8d2p/revision/1>

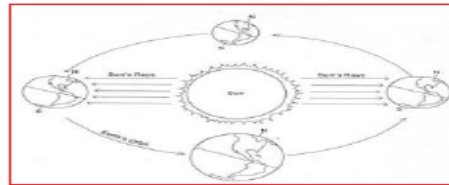
### Weight and Mass

**Mass** is the amount of matter there is in something. It is measured in kilograms, kg. An objects mass the same everywhere in the universe.  
**Weight** is the force of gravity on an object. All forces including weight are measured in Newtons, N. Gravity is not the same everywhere. So, an object's weight depends on where in the universe it is.  
 To work out the weight of an object we do some Maths. Weight (N) = mass (kg) x gravitational field strength (N/kg)

$$W = m \times g$$

### Day and Night

The Earth rotates (spins) round on its axis once in 24 hours. We spin into the light – day – and then back out again – night



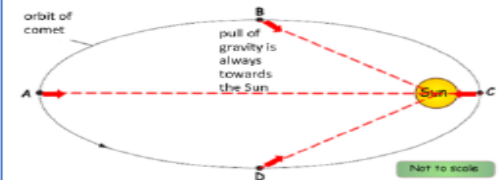
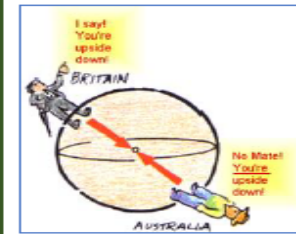
The Earth orbits the Sun *once every 365 days*. Planets further out from the Sun travel more slowly and take longer to go round once. The Earth's axis is tipped over in space. In Britain we get different *seasons* because sometimes we are tilted towards the Sun and sometimes away.

### The planets in order of distance from the sun

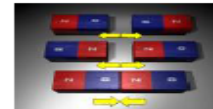


### Gravity

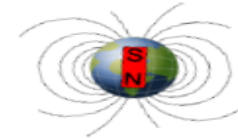
The planets are held in their orbits by the force of the Sun's gravity. The Moon is held in its orbit round the Earth by the Earth's gravity. The Sun's gravity also holds dwarf planets and asteroids in their orbits. Comets orbit the Sun too. The Sun's gravity pulls them in from beyond the orbit of Pluto. The closer they get to the Sun the stronger the force of gravity gets and the faster they go. Gravity always pulls things towards the centre of the mass making the gravity. So on Earth it pulls down to the centre of the Earth.



Magnetic material can be magnetised or will be attracted to a magnet. These metals are magnetic: *iron, cobalt, nickel and steel*. A magnet creates a magnetic field around it. The magnetic field is strongest at the poles, where the field lines are most concentrated.

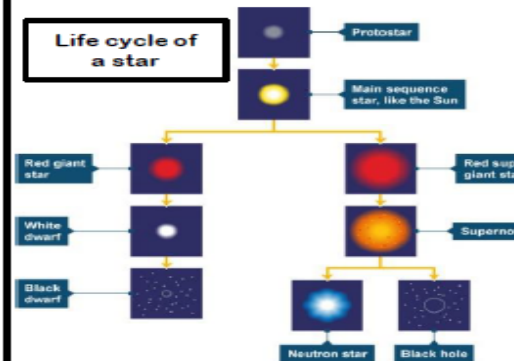


Unlike poles will attract.  
Like poles will repel.



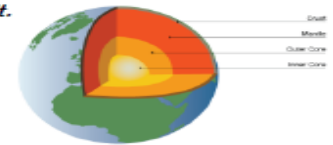
The *Earth* behaves as if it contains a giant magnet.

### Life cycle of a star



### Earth Structure

**Inner Core:** Solid iron and nickel  
**Outer core:** Liquid layer of iron and nickel  
**Mantle:** classed as a liquid.  
**Crust:** Land is made of continental crust, made mostly from *granite*. The layer beneath the ocean bed is made of oceanic crust, which is made mainly from *basalt*.

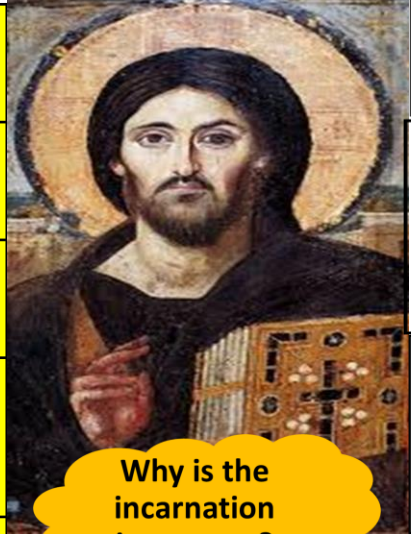




# RE Year 7 Spring : Galilee to Jerusalem



- Arianism**  
The belief put forward by Arius that Jesus was not equal to God.
- Christ**  
A title for Jesus that means he was chosen by God.
- Heresy**  
An opinion or belief that goes against Church teaching.
- Incarnation**  
Christians believe that God became man in the person of Jesus.
- Lex orandi, lex credendi**  
Latin phrase meaning 'The law of prayer, the law of belief'.



**Why is the incarnation important?**

- Lord**  
A person who has power or authority. A title used for God and Jesus.
- Service**  
Supporting the needs of others.

- **Jesus died on the cross to save us so we can go to heaven.**
- **Jesus shows us how much God loves us.**
- **Jesus showed us the perfect way to live.**
- **Jesus shows us what God is like.**
- **Jesus helps us to have a closer relationship with God.**

**“The Word became flesh and made his dwelling among us.” John 1:14**

**“When Jesus was baptised, a voice from Heaven said ‘You are my Son.’” Mark 1:11**

Jesus entered the temple courts and **drove out** all who were buying and selling there. He **overturned the tables** of the money changers. Matthew 21:12

I believe in one God, the Father almighty, maker of heaven and earth, of all things visible and invisible.

I believe in one Lord Jesus Christ, the Only Begotten Son of God, born of the Father before all ages. God from God, Light from Light, true God from true God, begotten, not made, consubstantial with the Father; through him all things were made. For us men and for our salvation he came down from heaven, and by the Holy Spirit was incarnate of the Virgin Mary, and became man. For our sake he was crucified under Pontius Pilate, he suffered death and was buried, and rose again on the third day in accordance with the Scriptures. He ascended into heaven and is seated at the right hand of the Father. He will come again in glory to judge the living and the dead and his kingdom will have no end.

I believe in the Holy Spirit, the Lord, the giver of life, who proceeds from the Father and the Son, who with the Father and the Son is adored and glorified, who has spoken through the prophets.

- Key life achievements:**
- Joined a Catholic convent, as a nun.
  - Helped ill and dying people in hospital.
  - Taught children for free in the slums.
  - Worked to help the poorest.
  - Devoted her life to God.
  - Founded missionaries of Charity.
  - Awarded Nobel Peace Prize.



- Son of God**  
A title of Jesus as the second person of the Trinity. Jesus is equal to God.
- Son of Man**  
A title for Jesus which suggests he is both God and human.
- Trinity**  
The belief that God is three in one. Father, Son and Holy Spirit.

## Son of God

**The Old Testament**

- It could mean a King. God speaks of King Solomon as a Son.
- It could mean a heavenly being such as an angel.

And a voice came from heaven 'You are my beloved Son; with you I am well pleased' (Mark 1:11)

**What does it show about Jesus?**

Jesus is God's son.  
Jesus has the same characteristics as God.  
Jesus can do the same things as God.  
Jesus is God.

**The New Testament**

- Jesus never directly calls himself the Son of God. He answered to it once on the night before his death.
- In Mark's Gospel Jesus is referred to as the Son of God lots of times. He meant that Jesus is God.
- God also calls Jesus his son during his baptism.

A Latin motto for the Church is 'lex orandi lex credenda'

'the law of what is prayed is the law of what is believed'

Worship reflects what we truly believe and helps us go out into the world to carry on the work of Jesus Christ.

## Son of Man

**The Old Testament**

The Hebrew word for 'human being' is ben-a-dam which literally means 'son of man'.

It appears in different books with different meanings

- Ezekiel-meaning ordinary human
- Psalms-a mere weak mortal human
- Daniel-A-dam, the first human

For even the **Son of Man** did not come to be served, but to serve, and to give his life as a ransom for many. Mark 10:45

**The New Testament**

- Christians today do not use this title
- It is not used by anyone in the Gospels
- **Jesus** called himself son of man.
- It appears 72 times!

**What does it show about Jesus?**

It shows Jesus is a human and God.  
It shows he has come to serve others  
It shows he has authority-he forgives sins, (only God can do this)



## The Trinity

- The Catholic Church teaches there is **one God, MONOTHEISM**, who has revealed himself gradually to us in three ways.
- The father is God
- **The Son is God**
- The Holy Spirit is God



Task - In your own words

# History Year 7 Spring Term: How much did England change during the Norman Conquest 1066-1087 Part 2

**Glossary:**

conquer To take control of a people or place by force.

conqueror A person who conquers a place or people.

Rebellion An act of armed resistance against the established government or leader.

Feudal System The Norman hierarchy. Set up to remind people of their place in society. People were ranked according to their job and status. Each group owed loyalty to the group above.

## Medieval

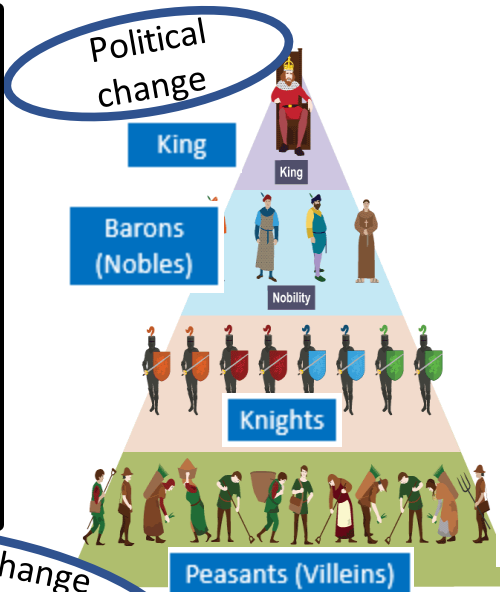
### How much did England change?

**Her story?**

Did you know that women at this time ...

- had no vote
- Could not choose who to marry
- Worked as craftswomen, could own a guild and earn money, become a nun.
- Were expected to be a good wife, mother and support her husband.
- Could run the estate if their Noble husband was away fighting for the King. Even become queen (Queen Matilda).
- Were often forgotten in historical accounts as these were often written by men (Monks).

**The Harrying of the North**  
King William taught the rebels a lesson by putting down rebellions quickly and ruthlessly. During the Harrying of the North, crops were burnt and animals were slaughtered. The population was reduced by 75%. Whole villages disappeared.



**Feudal System**  
Latin meaning "the holding of land"

**King William** was top of Norman society. Everyone had to obey his laws. He shared large areas of land with Barons. In return the Barons had to pay taxes, fight for the King and provide him with soldiers.

**Barons** were King William's most loyal followers. There were 200 in total. The nobility included Barons, clergy, Lords and Ladies. They shared out their land with the Knights and Peasants. In return the Knights had to pay taxes and fight.

**Knights** fought for the Barons and King. There were 4000 in total. Their wives would look after the land whilst they were away fighting. They had to show loyalty to the King and Barons. They shared out strips of land with the peasants.

**Peasants** worked strips of land and looked after the animals. They had to show respect and loyalty to the Knights and nobility. They made up about 1.5 million people. They gave a portion of their crops and paid taxes to the Knights. They also paid a tithe (tax) to the church. They had few rights.

**Timeline:**

- 14<sup>th</sup> October AD 1066**  
William Duke of Normandy wins the Battle of Hastings.
- 25<sup>th</sup> December AD 1066**  
Normans take 2 months to march to London. On the 25<sup>th</sup> William is crowned King.
- AD 1069**  
Harrying of the North
- AD 1066 - 1086**  
500 Castles built
- AD 1085-86**  
Domesday book
- AD 1066 - 1086**  
William dies

**How did ordinary life change?**

**New Laws**  
Forest Laws – people blinded, fined or executed for hunting in King's forests without permission. **Murdrum fines** – if a Norman was killed, the people who lived in the area had to pay a fine.

**Language**  
The Normans spoke French whilst ordinary people still spoke the English they were used to. Over time French words crept into the English language.

**Religion**  
The Normans replaced the wooden Anglo-Saxon churches with stone ones. The most important Church jobs were given to Normans.

**Castles**  
Motte and Bailey castles changed the landscape of England. Between 1066-1086 over 500 castles were built mainly near former rebel towns, cross roads and river crossings. The castle could control an area of up to 20 miles radius. Although brought peace, these towns became important places of trade.

**What was the impact on ordinary lives?**

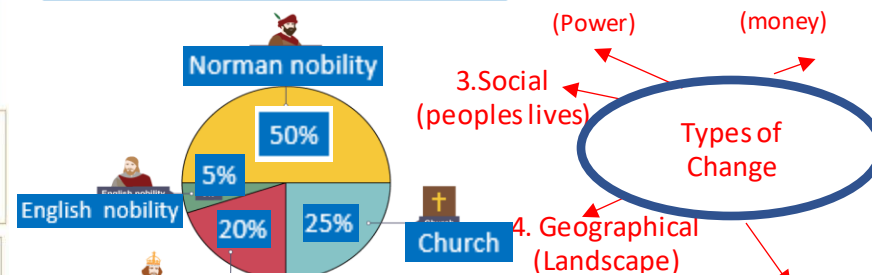
**Social change**

**Cultural change**



### Land ownership and who was in charge changed

#### What the Domesday book revealed?



In 1085 the King ordered a great survey. This was to find out who owned the land and how much wealth they had so he knew how much to tax people. His officials visited 13,000 villages twice. It revealed what % of land each group owned and how much the geography of England had changed. Some villages were no longer on the map after the Harrying of the North.

**Useful website:**

- <https://www.bbc.co.uk/bitesize/topics/zvhjdp3/articles/zhrysk7>
- <https://www.bbc.co.uk/bitesize/topics/zvhjdp3/articles/zct4r2p?topicJourney=true>
- <https://www.bbc.co.uk/bitesize/topics/zvhjdp3/articles/zkpm7yc?topicJourney=true>

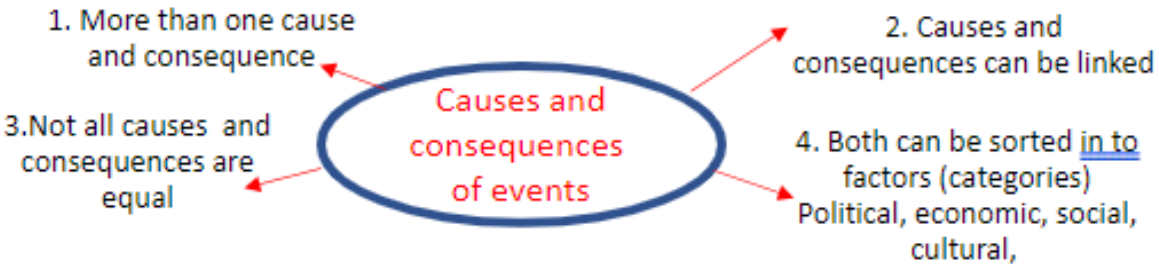
**Geographical change**

# History Year 7 Spring Term: Could a Medieval Monarch do what they wanted (1100-1400)?

## Timeline: Key Events

1154	Henry II became King of England.
1162	Henry II make his best friend, Thomas Becket, the Archbishop of Canterbury.
1170	Archbishop Thomas Becket is murdered in Canterbury Cathedral by four knights
1215	King John is forced to sign the Magna Carta at Runnymede.
1258	Henry III was forced to sign the Provisions of Oxford. This was like an extension of the Magna Carta.
1263	Barons rebel under Simon du Montfort.
1265	Meeting of the Great Council. The "Commons" are invited. The first Parliament.
1348-49	The Black Death hits England. This epidemic killed about 30-40% of the population.
1381	The Peasant's Revolt. This is the first time those at the bottom of society challenge royal authority

## Medieval



### Challenges to Power

- 1162-1170 Archbishop Becket refused to change the Church courts and he excommunicated all the bishops who helped King Henry
- 1215 King John I had angered the barons and church by losing land in France, demanding high taxes, closing the churches for 7 years, disrespecting the barons.
- 1265 Simon de Montfort called a meeting of the Great Council including two ordinary wealthy people (burgesses) from each town after capturing King Henry
- May 1381 the peasants were angry with King Richard II's new poll tax, work service (working for 2-3 days for no money) and the Statute of Labourer's law (this stopped peasants for asking for higher wages). Peasant **rebels** led by Wat Tyler meet the King at Smithfield.


### The consequences

- King Henry II lost his temper, crying "who will rid me of this troublesome priest?". Four of the King's knights murdered the Archbishop on 29<sup>th</sup> December 1170 in Canterbury Cathedral. They believed he had committed treason (gone against the King). Fearing he might be excommunicated, Henry asked the Pope for forgiveness and he abandoned his plans to change the church. This showed that the King was still answerable to the Pope.
- In 1215 40 barons put together an army and marched to London. The Barons listed 63 rights that they wanted – the great charter was called the Magna Carta. King John agreed to the Magna Carta and the barons agreed to be loyal. He agreed to not ask for extra taxes without consulting the **Great Council**. **The Magna Carta** was important in the long term because it introduced the idea that certain laws and rules that even monarchs had to obey. Today it is known as one of the first steps towards Britain becoming a **democracy**.
- The King and Prince Edward fought back and de Montfort's army was defeated. However, when Edward became King in 1272 he didn't want to risk war so kept the idea of **Parliament**. The King now had to ask Parliament if he wanted to raise taxes, in return Parliament asked the King to introduce new laws. This gave those in Parliament increased power over the King.
- On the way to London the peasants burnt buildings and important documents books and papers. They also killed Archbishop of Canterbury and the King's treasurer. King Richard II agreed to meet the peasants but during the meeting Wat Tyler was killed by the Mayor of London. To stop any attack the King spoke to the rebels and promised to listen to their demands. The King didn't keep his promise and the leaders were hunted down and killed. However, the poll tax was scrapped. Over the next 50 years Parliament stopped trying to control the Peasants wages. Many peasants bought land with their new wealth so didn't have to rely on their Lord for work, so the nobility had less control over their every day lives.

**Political consequence**  
The start of **democracy** – a system of government where the people have a say in how the country is run.

### Glossary:


**Archbishop of Canterbury** The most important bishop in England, and a very important position, especially in the Middle Ages.

**Magna Carta**  The Great Charter. A list of 65 restrictions placed on the English monarch by the barons. It gave the barons more power, but didn't do anything for the peasants of England. It was the first time that the power of Medieval monarchs had been restricted.

**Great Council** A group of barons chosen to advise the King. After Magna Carta, the King had to call the Great Council if he wanted to raise taxes or make any other big decisions. This was the beginning of Parliament as we know it today.

**Lords** The barons and bishops who made up part of parliament.

**Commons** The knights and burgesses who were called to parliament for the first time by Simon De Montfort.

**Parliament**  Controls the country and is made up of the King, the House of Lords and House of Commons

# Geography Year 7 Spring Term – What is weather and climate?



What do I need to know?	
What is the difference between weather and climate?	
How do we measure weather?	
What are the different map symbols?	
How do we forecast the weather?	
How does the water cycle work?	
Why does it rain?	
What are the factors affecting climate?	
How to read a climate graph	
What are the characteristics of anticyclones and depressions?	

Skills to develop
Interpreting weather maps and developing graph reading skills

## What is the difference between weather and climate?

**Climate:** the overall pattern of weather measured over 30 years

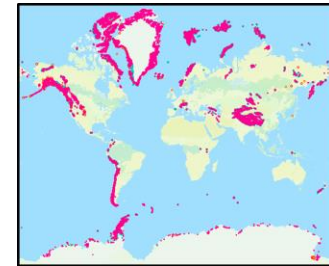
**Weather:** the day to day changes in temperature, wind speed, direction and air pressure

## What is a glacier?

Glaciers are made up of fallen snow that over many years can compress into thick ice. They are able to flow like very slow rivers

**Glacial periods:** Cold period where glaciers get bigger

**Interglacial periods:** The warmer times between ice ages



## What is erosion?

Erode means to gradually wear away. This can happen in glaciers, in rivers and at the coast.

### Plucking

Melted water at the base and sides of the glacier freezes to the rock. As the glacier moves, the rock is pulled away

### Abrasion

The bits of rock which are stuck in the ice scrape against the rock at the base and sides of the glacier



# Geography Year 7 Spring term: What is weather and climate?



## Key Vocabulary

Altitude	Height of the land affects climate as the temperature drops.
Precipitation.	Anything that falls from a cloud- snow, sleet, hail and rain.
Latitude	Distance north and south from the equator.
Evaporation	Water is heated and changes from a liquid to a gas.
Transpiration	Water held in plants is released into the atmosphere.
Climate	The average temperature and rainfall measured over 30 years.
High Pressure (Anticyclone)	Air is descending and becoming warmed – it is pressing down on us. Clear skies and dry weather.
Low Pressure (Depression)	Air is rising and becoming colder – it is being lifted. Bad weather is associated with depressions.

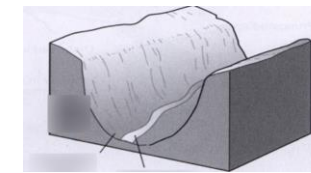
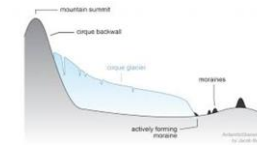
## Which landforms are created by erosion?

**Cirques** – arm chair shaped hollows with a steep back wall. As the glacier moves down the mountain it erodes the material below it.

**Pyramidal peaks** – When three or more cirques are formed back to back

**Aretes** – Jagged ridge which is formed when two cirques lie side by side

**U-Shaped Valleys** - As glaciers move downhill the ice has great erosive power. It acts mainly on the base of the valley, glaciers fill the valley and create steep sides and wide bases.



## What is deposition?

Deposition means when bits of rock and soil are dropped by whatever was carrying them. At the front of the glacier (or the snout), the ice melts and so the ice can no longer carry it! This is called glacial till. It is usually a mixture of boulders, rocks, sand and clay

**Terminal moraine:** at the front of the glacier

**Lateral moraine:** at the sides of the glacier

**Erratics:** large boulders left behind

**Drumlins:** smooth egg like hills



## Why are glaciers shrinking?

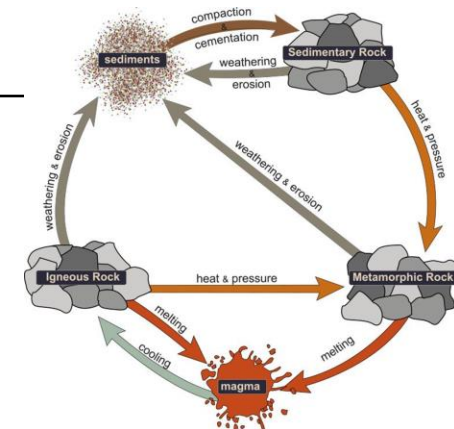
Since the 1900s, glaciers have been melting due to human activities such as releasing greenhouse gas emissions. There are some impacts:

**Less ice = more warming**

**Loss of data**

**As glaciers melt, sea level rises**

**Loss of natural habitats**





## What do I need to know?

What is a settlement?

Where are settlements located?

What is the land use model?

How have settlements grown?

Why is NYC a megacity?

What are the issues of growth in Delhi?

What is a favela?

How is transport sustainable in the UK?

Is Masdar City sustainable?

### What is a Settlement?

A place where people live

### What is a Site?

The land a settlement is built on



### Factors Affecting Site Location

**Plenty of water:** It is important to be near to water e.g. a river or a lake so that there is plenty of water to drink, wash in and cook with.

**Building materials:** You have to be able to build a strong house to live in,

**Supply of wood:** Wood is important for building, and also making fires which are needed for keeping warm and cooking on.

**Flat land:** Flat land is much easier to build on than hills and mountains. It is also good for growing crops (food) so that there is plenty to eat.

**Not too much water:** Being close to water is important but not too much water because it might flood and ruin the settlement. Also the land might be marshy (soggy) and the house might sink into the land.

**Protection:** Settlements might get attacked and so it is important to have protection, for example on the top of a hill you would be able to see your enemies coming and prepare yourself.

**Shelter:** On the side or at the bottom of hill will provide shelter to protect against strong winds and rain so houses and crops don't get ruined.

### Burgess Model

**CBD** – Large offices,

shops, and entertainment

**Inner City** – Terraced houses

and some high rise flats

**Inner Suburbs** – Larger houses

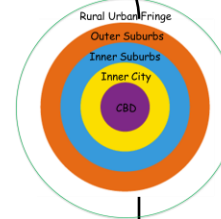
with gardens and some shops

**Outer Suburbs** – New houses and

housing estates – parks and open areas

**Rural-Urban Fringes** – Outskirt of city,

large detached houses



### Megacities

A city in an emerging country: Dehli

- Problems: waste, pollution, overcrowded, traffic
- Solutions: build new housing, improve transport

A city in a developed country: New York

- Problems: Diseases, pests, waste
- Solutions: built central park for air quality, entertainment, collect bins

### Skills to develop

Persuasive writing



# Spanish Year 7 Spring Term



## Year 7 Spanish Viva 1 Module 2 (Mi Tiempo Libre)



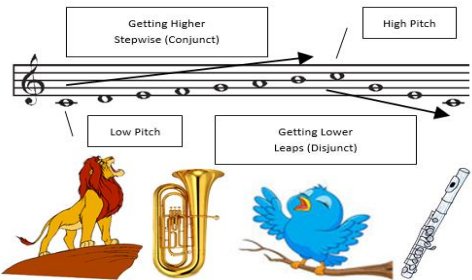
<p><b>Chapter 1 ¿Qué te gusta hacer?</b>                  Me gusta... - I like                  navegar por Internet – to surf the net                  chatear – to chat                  escuchar música - to listen to music                  jugar a los videojuegos - to play videogames                  mandar SMS – to send texts                  ver la televisión – to watch TV                  leer – to read                  escribir correos – to write e-mails                  salir con mis amigos - to go out with my friends</p>	<p><b>Grammar</b>  <b>Opinions</b>                  Me gusta mucho... I really like                  No me gusta... I don't like                  No me gusta nada... I really don't like</p> <p><b>Justifications</b>                  Porque es... because it is                  Porque no es... because it isn't                  interesante - interesting                  guay - cool                  divertido/a - fun                  estúpido/a - stupid                  aburrido/a - boring</p>	<p><b>Chapter 2 ¿Cantas karaoke?</b>                  ¿Qué haces en tu tiempo libre? – what do you do in your free time?                  bailo – I dance                  toco la guitarra – I play the guitar                  saco fotos – I take photos                  monto en bici – I ride my bike                  canto karaoke - I sing karaoke                  hablo con mis amigos – I chat with my friends</p>
<p><b>Chapter 3 ¿Qué haces cuando llueve?</b>                  ¿Qué tiempo hace? – What's the weather like?                  Cuando - when                  hace calor – it's hot                  hace frío – it's cold                  hace sol – it's sunny                  hace buen tiempo – it's good weather                  llueve – it's raining                  nieva – it's snowing                  en primavera - in Spring verano - Summer                  en invierno - in Winter en otoño – in Autumn</p>	<p><b>Regular present tense-AR verbs</b>  <b>How to conjugate</b>                  (turn an infinitive verb into something useful!)                  1. Take the infinitive                  2. Chop off the ending                  3. Add the new endings</p> <p>Hablar – to speak                  Hablo – I speak                  Hablas – You speak                  Habla – He/she/it speaks                  Hablamos – We speak                  Habláis – you lot speak                  Hablan – They speak</p>	<p><b>Expressions of frequency</b>                  todos los días – every day                  a veces - sometimes                  nunca - never                  de vez en cuando - from time to time</p>
<p><b>Pronunciation</b>                  'll' is pronounced as a 'y' sound                  c before e and i is a soft sound</p>	<p><b>Irregular present tense</b>  <b>Hacer – to do/ make</b>                  Hago – I do/ make                  Haces – You do/ make                  Hace – He/she/ it does/ makes                  Hacemos – We do/ make                  Hacéis – You lot do/ you make                  Hacen – They make</p>	<p><b>Chapter 4 ¿Qué deportes haces?</b>                  ¿Qué deportes haces? - what sports do you do?                  Hago... gimnasia - I do... gymnastics                  artes marciales –martial arts                  equitación –horse riding                  atletismo –athletics                  Hago natación – I do swimming                  Juego al fútbol – I play football                  al tenis –tennis                  al voleibol –volleyball                  al baloncesto – I play basketball</p>
<p><b>REMEMBER</b>                  Infinitives are the form of the verb you find in the dictionary.                  They translate as 'to do something' e.g.                  Comer – to eat                  Hablar – to talk                  Vivir – to live                  They always end in er/ir/ar and most of the time you have to change them to make them useful to you (called conjugating)                  However, when giving opinions they stay as you find them in the dictionary                  e.g. Me gusta <b>comer</b> la pizza                  I like <b>to eat</b> pizza</p>	<p><b>Regular present tense</b>  <b>Stem-changing verb</b>  <b>Jugar- to play</b>                  Juego – I play                  Juegas – You play                  Juega – He/she/it plays                  Jugamos – We play                  Jugáis – You lot play                  Juegan – They play</p>	<p><b>Días – start with little letters!</b>                  lunes - Monday                  martes – Tuesday                  miércoles - Wednesday                  jueves - Thursday                  viernes - Friday                  sábado - Saturday                  domingo – Sunday                  Los lunes – On Mondays</p>
<p><b>Cognates</b>                  These are words spelt the <b>same</b> in English and Spanish. Even though they look the same they may be pronounced differently.</p>	<p><b>Palabras muy frecuentes</b>                  Con – With                  Mucho – A lot                  O – O</p>	<p><b>Question words</b>                  ¿Qué? – What?                  ¿Cuándo? - How?                  ¿Dónde? Where?                  ¿Cómo? – How?                  ¿Cuántos? How many?</p>
<p><b>Near – cognates</b>                  Words spelt <b>similarly</b> in English and Spanish. We can still work out what they mean.</p>	<p><b>Palabras muy frecuentes</b>                  Pero – But                  Sí – yes                  También – Also</p>	<p><b>Palabras muy frecuentes</b>                  y - and                  tu/ tus - your                  mi/ mis - my</p>



# Music Year 7 Spring: Elements of Music & Graphic Scores



**Pitch:** The highness or lowness of a sound



**Tempo:** The speed of a sound or piece of music

FAST: *Allegro, Vivace, Presto*  
 SLOW: *Andante, Adagio, Lento*  
 GETTING FASTER – *Accelerando (accel.)*  
 GETTING SLOWER – *Ritardando (rit.)* or *Rallentando (rall.)*



**Dynamics:** The volume of a sound or piece of music

VERY LOUD: *Fortissimo (ff)*  
 LOUD: *Forte (f)*  
 QUITE LOUD: *Mezzo Forte (mf)*  
 QUITE SOFT: *Mezzo Piano (mp)*  
 SOFT: *Piano (p)*  
 VERY SOFT: *Pianissimo (pp)*  
 GETTING LOUDER: *Crescendo (cresc.)*  
 GETTING SOFTER: *Diminuendo (dim.)*



**Duration:** The length of a sound



**Texture:** How much sound we hear

**THIN TEXTURE:** (*sparse/solo*) – small amount of instruments or melodies.



**THICK TEXTURE:** (*dense/layered*) – lots of instruments or melodies.

**Timbre:** The unique sound or tone quality of different instruments voices or sounds



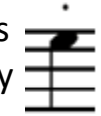
*Velvety, Screechy, Throaty, Rattling, Mellow, Chirpy, Brassy, Sharp, Heavy, Buzzy, Crisp, Metallic, Wooden etc.*

**Articulation:** How individual notes or sounds are played

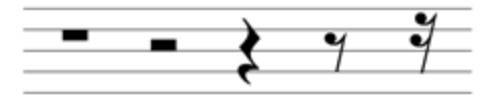
**LEGATO** – playing notes in a long, smooth way shown by a SLUR.



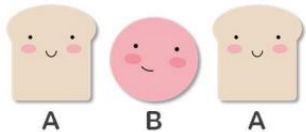
**STACCATO** – playing notes in a short, detached, spiky way shown by a DOT.



**Silence:** The opposite or absence of sound, no sound. In music these are RESTS

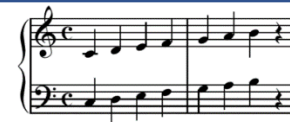


**Structure:** How a piece of music is organised into different sections or parts



**Notation:** How music is written down.

**STAFF NOTATION** – music written on a STAVE (5 lines and spaces)



**GRAPHIC NOTATION/SCORE** – music written down using shapes and symbols to represent sounds.



Music can create an **atmosphere** or **ambience**. Music can also create an **image** e.g., in response to art, a story, a poem, a character, a situation – this is called **PROGRAMME MUSIC**.



# Year 7 Physical Education:

## Learning to love PE

- Basic Motor skills/techniques
- Expectations/Standards
- Isolated skill practice



## Health Related Fitness - Benefits of Physical Activity

- Short term Effects of Exercise
- Anatomy Vocabulary
- Balance, Speed, Strength, Cardiovascular Fitness



## Dance

- Knowledge of techniques, styles and forms.



## Sports/Activities taught

Netball  
Football  
Hockey  
Handball  
Cricket  
Runders  
Basketball  
Table Tennis

## Strategies to overcome opponents in competitive sport (Games)

- Teamwork
- Rules & regulations
- Fundamentals of Movement



## Develop techniques and improve performance in other competitive sport. (Individual)

- Athletics: Hitch kick
- Gymnastics: Travel, core skills, small apparatus



## Outdoor & Adventurous Activities

- Team building
- Problem solving
- Oracy & Communication Skills



## Wider Curriculum Competitive Sports & Activities

- Extra Curricular
- Inter-form
- Sports Day
- Community Links

- Desire to Improve: assessments will demonstrate improvements to achieve your personal best.
- Commitment, Resilience & Respect across the learning journey.

# Art Year 7 Spring Term: Cubism Still Life



## Glossary

**Artists: Georges Braque Pablo Picasso**

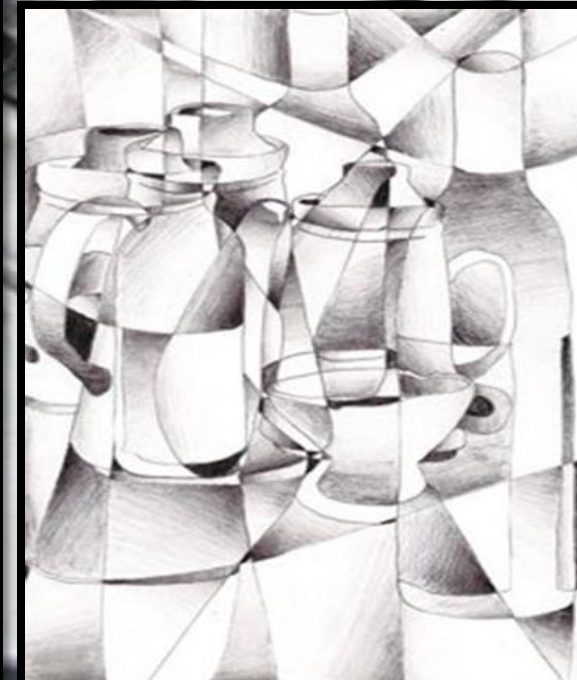
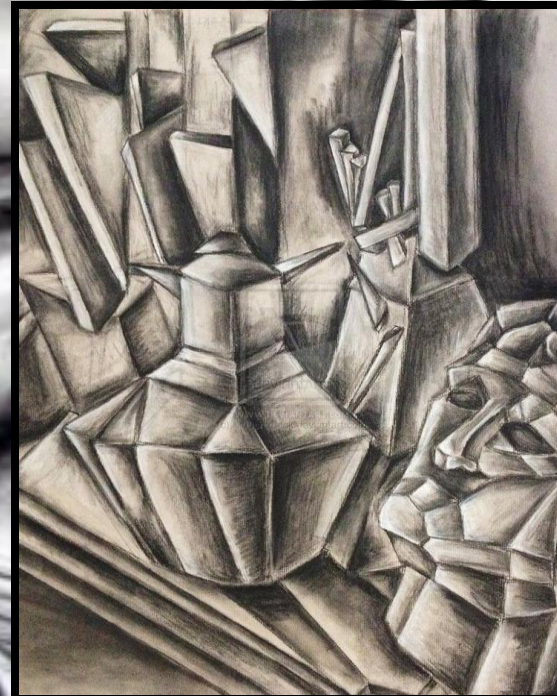
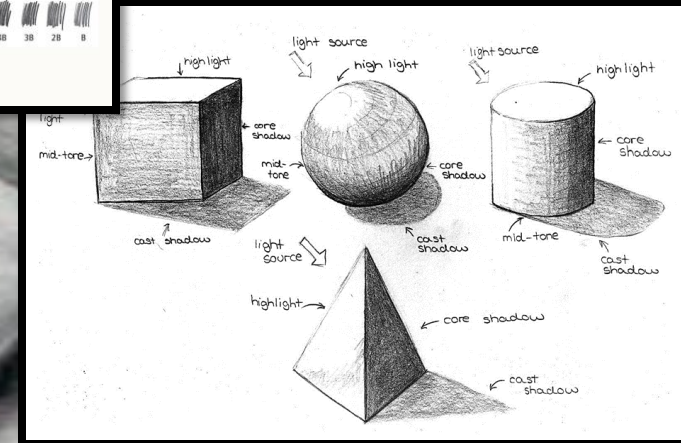
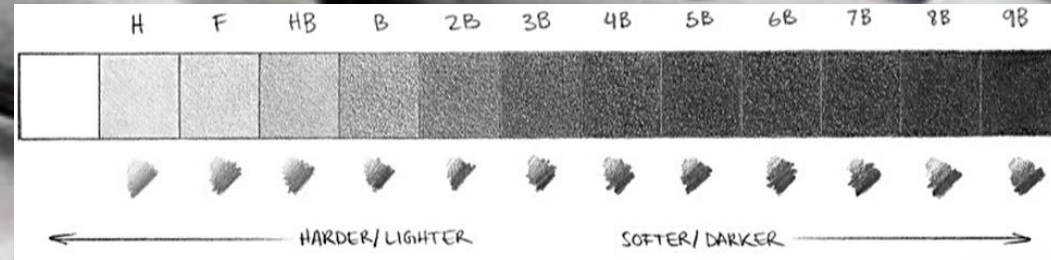
### What is cubism and why was it so radical?

In around 1907 two artists living in Paris called Pablo Picasso and Georges Braque developed a revolutionary new style of painting which transformed everyday objects, landscapes, and people into geometric shapes.

**Cubism** – An object seen from multiple points of view reconstructed using separate views which overlap and intersect. Dissecting form into basic geometric shapes

**Monochrome** - Usually taken to mean the same as black and white or, more likely, grayscale, but may also be used to refer to other combinations containing only tones of a single color, such as green -and-white or green-and-red

**Fragmented** – Something which is broken down into parts and appears uneven and imperfect in its appearance



### Helpful video links



<https://www.youtube.com/watch?v=3KJZc7o-h2Y>

<https://www.youtube.com/watch?v=UhB0U6OUPIM>

<https://m.youtube.com/watch?v=m21bl53H8nl>

<https://m.youtube.com/watch?v=vMr6eimcolc&t=173s>

# DT: Year 7 Spring Term: Introduction to materials - Acrylic

## Glossary

### Material(s)

the matter from which a thing is or can be made:

### Acrylic

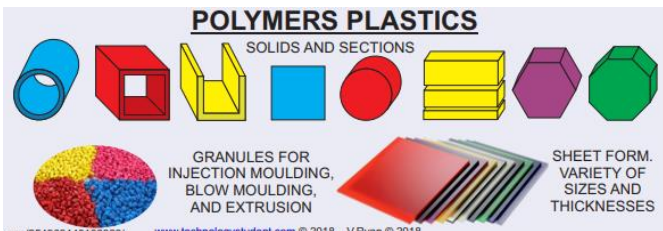
This plastic is often in sheet form as a lightweight or shatter-resistant alternative to glass.

### Thermosetting

**Thermosetting plastics** once heated and formed to a shape, **cannot be reheated and reformed**. Consequently, they tend to be difficult to recycle.

### Thermoplastics

**Thermoplastics** once heated and formed to a shape, **can be reheated and reshaped**. Every time they are reshaped, the quality of the thermoplastic tends to be reduced. They are recyclable.

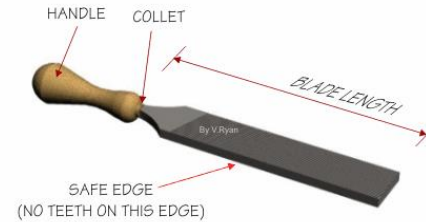


All plastics are based on polymers and they are created by bonding molecules together. The terms monomer and polymer are very important in the plastics industry. A monomer is a small molecule that can chemically bond to other monomers, forming a polymer. Remember all plastics are polymers.

## Tools and Equipment



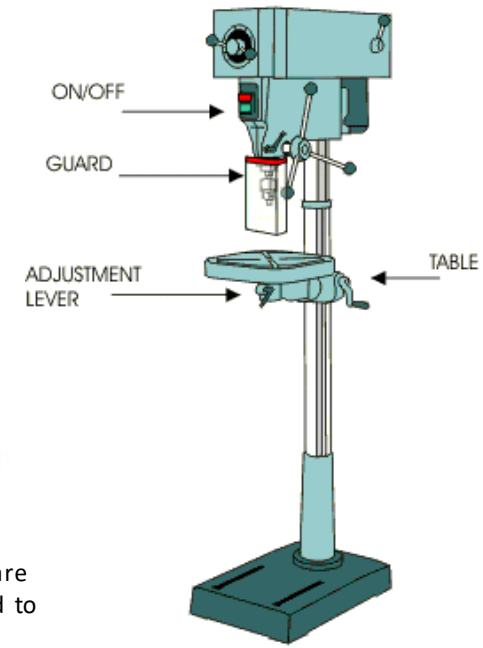
Coping saws are used for cutting a range of woods or acrylic into unusual shapes and curves. To use them accurately is a test of skill.



A hand file is used to smooth rough edges. They are made from high carbon steel and are heat treated to make them stronger than the materials they are applied to.



Needle files – used to file down small sections of a design. Used a lot in the making of jewellery.



There are two types of machine drill, the bench drill and the pillar drill. The bench drill is used for drilling holes through materials including a range of woods, plastics and metals. It is normally bolted to a bench so that it cannot be pushed over and that larger pieces of material can be drilled safely. The larger version of the machine drill is called the pillar drill. This has a long column which stands on the floor. This can do exactly the same work as the bench drill but because of its larger size it is capable of being used to drill larger pieces of materials and produce larger holes.

### How to use...

Hand files are normally held in both hands. The file is held flat against the surface it is to cut / smooth. The file is then pushed forward and it cuts on the forward stroke. It is then lifted away from the plastic and returned to the starting point for the next push forward. This is called 'through filing'. Through filing is normally the first stage in smoothing a piece of metal or plastic. If the surface produced by through filing is not good enough - the next stage is 'draw filing'. The file is held in both hands by the blade and pushed forwards and backwards along the material. The final stage of filing / smoothing a piece of metal / plastic is to use wet and dry paper. The paper is held onto the blade of the file.

[Hand Files / Engineers Files - 1 \(technologystudent.com\)](http://Hand Files / Engineers Files - 1 (technologystudent.com))



Wet and Dry paper – used for the final finish on plastics and metal. This is used after filing has been completed.

A vise has jaws that are padded in order to hold acrylic without damaging it



# DT Year 7 Spring: Introduction to materials - Wood



## Glossary

### Material(s)

The matter from which a thing is or can be made

### Softwoods







Softwoods are usually obtained from coniferous trees, which keep their leaves in winter and are also known as evergreens. These grow quickly which makes them sustainable as they are renewable. This also makes them cheaper when compared to hardwoods. Examples are: pine, fir or spruce.

### Hardwoods

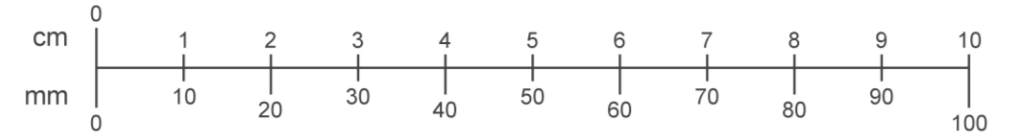
Hardwoods are usually obtained from deciduous trees, which lose their leaves in autumn. They grow slowly which makes them more expensive and less sustainable. Examples are: Mahogany, oak, maple, ash.

### Manufactured Boards

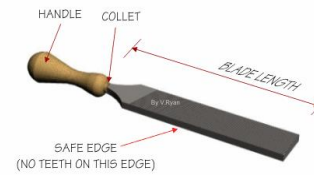
Manufactured board are simply strips or pieces of wood (chips/dust) glued together and pressed with a heat process to form larger boards or sheets.

Hardwood	Softwood	Manufactured Board
		
<ul style="list-style-type: none"> <li>Deciduous trees</li> <li>Broad leaves</li> <li>Slow growing</li> <li>Expensive</li> <li>Less sustainable</li> </ul>	<ul style="list-style-type: none"> <li>Coniferous tree</li> <li>Needles</li> <li>Faster growing</li> <li>Less expensive</li> <li>More sustainable</li> </ul>	<ul style="list-style-type: none"> <li>Not naturally occurring</li> <li>Sheets of timbers glued together</li> <li>Different formations for different purpose</li> </ul>
<p>Examples:</p> <ul style="list-style-type: none"> <li>Ash</li> <li>Beech</li> <li>Mahogany</li> <li>Oak, Balsa</li> </ul>	<p>Examples:</p> <ul style="list-style-type: none"> <li>Larch</li> <li>Pine</li> <li>Spruce</li> </ul>	<p>Examples:</p> <ul style="list-style-type: none"> <li>MDF</li> <li>Plywood</li> <li>Chipboard</li> </ul>
<p><b>OAK</b> - This is an expensive material and is used in for making quality, expensive furniture. Oak has a dense grain pattern which gives the finished product a more luxurious finish.</p> 	<p><b>PINE</b> - Is a relatively cheap wood used in the building trade and for furniture. It is pale in colour, quite easy to cut and shape, and machines relatively well.</p> 	<p><b>MEDIUM DENSITY FIBRE BOARD (MDF)</b> - A quality board, relatively cheap. This board is composed of fine wood dust and resin pressed into a board. This material can be worked, shaped and machined easily. Paint can be applied to it without the need for an undercoat or primer.</p> 

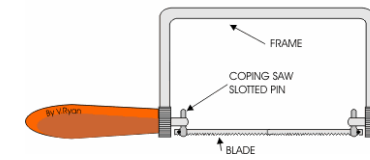
centimeters to millimeters conversion scale



## Tools



A **hand file** is used to smooth rough edges. They are made from high carbon steel and are heat treated to make them stronger than the materials they are applied to.



A **Coping saw** allows use to cut through thin materials. It will allow us to cut curves as well as straight. The blade is held under TENSION to make it robust for cutting.



A **Vice** is used to hold your material securely whilst you work

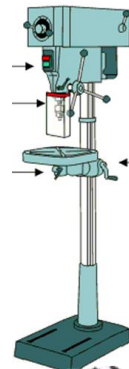


**Bench hooks** are used as a platform to cut on. The material butts against the end of the hook whilst the opposite end hooks to the table edge.



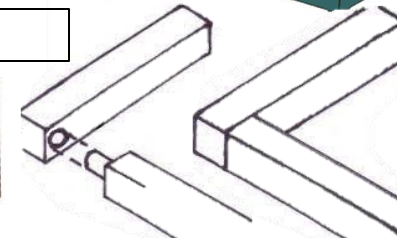
**Marking gauges** have a sharp spur. The spur is used to scribe and score a mark on materials. They are very useful for scoring repeated measurements

The **Pillar Drill** is used to drill holes into your material. Cramps must be used to secure your work.



## Dowels

Dowels are small rods of timber which are precut to small lengths. They are inserted into the centre of wood joint to improve the strength of the joint. The holes to put the dowels in are made by a drill.



Accuracy is key to the success of your product. Using a try square a rule will help you achieve accurate measurements.

**MEASURE TWICE, CUT ONCE!**

# Food and Nutrition, Health and Safety, Food Safety

## Year 7 Spring Term

- Seneca Online Learning - AQA Food and Nutrition - Class code: b797g0nf2i
- <https://www.foodafactoflife.org.uk/>
- BBC Food
- Food Standards Agency - <https://www.food.gov.uk/food-safety>
- <https://www.ifst.org/lovefoodlovescience>
- <https://www.nutrition.org.uk/>
- <https://quizlet.com/240309265/gcse-food-preparation-nutrition-keywords-flash-cards/>



### **Key Knowledge:**

- Know the difference between Health and Safety and Food Safety
- Describe how to keep food safe (Bacteria)
- Know and understand how to prevent bacterial contamination.
- Recognise the symptoms of food poisoning.
- Understand the food safety principles when storing food.
- Describe the term cross contamination and how it occurs.

### **Quick Test (use the internet to research the answers)**

1. What are bacteria?
2. What would happen if food is prepared incorrectly and then eaten?
3. On food packaging what do you need to check before buying the food?
4. Explain the term cross contamination.
5. What is the bacteria found in chicken called?
6. Can food poisoning be deadly?



Research the Key Words below and write an explanation for each

- **Health and Safety**

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- **Food Safety**

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- **Cross Contamination**

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- **Food Poisoning**

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- **Bacteria**

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Watch

# Computing Year 7 Spring Term: Graphics

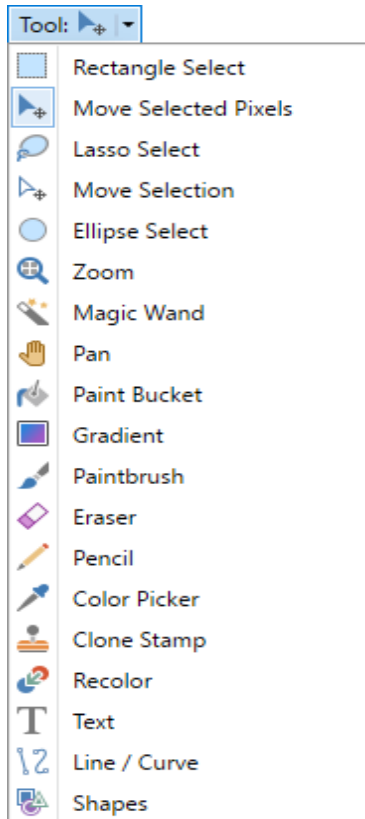
Quiz



## Graphics

Graphic design is the art or skill of combining text and pictures in advertisements, magazines, or books.

## Tools



## Key Terms

**Bitmap:** An image made up of pixels. This type of image loses quality if its width and/or height are increased.

**Vector:** Vector graphics are based on mathematical relationships with control points that make up the image. Vectors are used for cartoon images or logos

**Pixel:** One individual unit or dot which makes up an image

**Editing:** Changing the way an image looks

**Composition:** Different parts of images put together, putting images onto one image

**Audience:** Who your graphical work is designed for

**Layout:** How the page is set out

**Mood board:** A group images put together about a topic

## Repurpose

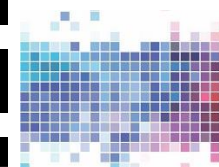
This is changing or editing an image in some way. This could either be changing the colour, making it black and white, adding things to an image or changing something within the image.

## Bitmap v Vector

Bitmap images are real digital images they are made up of pixels which are tiny coloured dots.

Vector images are used for cartoon images and logos they are made by mathematical co-ordinates.

When a Bitmap image is resized it goes blurry when a vector image is resized the quality remains the same.



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Read

# Computing Year 7 Spring Term: Computers

Quiz



## Inputs

Allow the user to interact with a computer system.

e.g. Mice, Keyboard, Touchscreens and Touch Pads, Microphones, Cameras, Webcams and Scanners.

Any device that sends data to a computer is an input device.

## Outputs

These devices are responsible for returning the processed data back to you.

e.g. Monitors, Printers, Buzzers, Speakers.

Output devices do more than just display information visually – some can output sounds and some can move.



## Key Terms

**Hardware:** The physical parts of the computer which you can touch they include mouse, printer and motherboard

**Software:** The programs that run on a computer, this might be PowerPoint, Word, Roblox or your internet browser Google Chrome

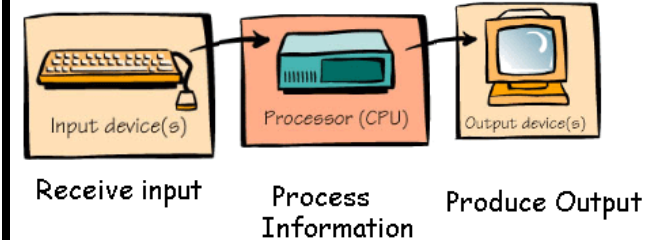
**Peripheral:** Is anything that you can add onto a computer system such as a Mouse, Keyboard or Printer

**Computer:** A computer is a machine or device that performs processes, calculations and operations based on instructions provided

**Storage:** This is the place where you save you work on a computer, it can be in many different formats such as Hard Drive or USB Flash drive. Different storage devices have different sizes

## Computer

### What Computers Do



## Units of Data

**Data is stored in Bytes...**

Bit - A single binary digit (1 or 0)

Nibble - 4 bits

Byte - 8 bits

Kilobyte - 1000 Bytes

Megabyte - 1000 Kilobytes

Gigabyte - 1000 Megabytes

Terabyte - 1000 Gigabytes



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# Parental Rights and Responsibilities



## What is Parental Responsibility?

The term 'Parental Responsibility' attempts to focus on the parent's duties towards their child rather than the parent's rights over their child.

If you have parental responsibility, your most important roles are to:

- Provide a home for the child
- Protect and maintain the child
- You're also responsible for:
  - Disciplining the child
  - Choosing and providing for the child's education
  - Agreeing to the child's medical treatment
  - Naming the child and agreeing to any change of name
  - Looking after the child's property

Parents have to ensure that their child is supported financially, whether they have parental responsibility or not.

## Parental responsibility for separated parents

If you have parental responsibility for a child but you don't live with them, it doesn't mean you have a right to spend time with your children. However, the other parent must include you when making important decisions about their lives, including:

- Determining the child's education and where the child goes to school;
- Choosing, registering or changing the child's name;
- Appointing a child's guardian in the event of the death of a parent;
- Consenting to a child's operation or certain medical treatment;
- Accessing a child's medical records;
- Consenting to taking the child abroad for holidays or extended stays;
- Representing the child in legal proceedings;
- Determining the religion the child should be brought up with.

They do not need to be consulted on day to day decision about the child's well being.

## Who has Parental Responsibility?

- **Mothers automatically have Parental Responsibility and will not lose it if divorced.**
- **Married fathers automatically have Parental Responsibility and will not lose it if divorced.**
- **Unmarried fathers do not automatically have Parental Responsibility.**
- **Step-fathers and Step-mothers do not automatically have Parental Responsibility.**
- **Grandparents do not automatically have Parental Responsibility.**

## An unmarried father can obtain Parental Responsibility by:

- **Marrying the mother;**
- **Having his name registered or reregistered on the birth certificate if his name is not already registered; the law changed in 2003 so that unmarried fathers who registered or re-registered their name on their child's birth certificate after 1st December 2003 will have parental responsibility for their child.**
- **Entering into a parental responsibility agreement with the mother;**
- **Obtaining a parental responsibility order from the court;**
- **Having obtained a residence order prior to 22/4/2014;**
- **Being named as the resident parent under a child arrangements order;**

## Same Sex Couples

### Adoption

In November 2002, the Adoption and Children Act passed into law and, for the first time, allowed unmarried couples, including same-sex couples, to apply for joint adoption. Applications for adoption must be made to an adoption agency. These may be run by the local authority or an approved agency. The adoption assessment is lengthy and thorough. If you are a couple applying to adopt you will both be assessed, and will need to demonstrate the stable and enduring nature of your relationship. Following a successful assessment the application is referred to an Adoption Panel. If you are approved by the Panel, you will go through a matching process. This involves a child or young person being placed with you. Depending on the success of this placement, an application can be made to the court for an adoption order. At this stage further reports will be placed before the court to help them reach a final decision. If successful both partners will have parental rights for the child.

### Surrogacy

Surrogacy is where a woman carries a child for intended parents and relinquishes her parental status upon the birth of the child. This is commonly an option for male same-sex couples who wish to have a child without sharing responsibility with the child's mother/s. Under English law, the surrogate is always treated as the legal mother of a child at birth. If the surrogate is married or in a civil partnership, her husband/civil partner is treated as the child's second parent. This excludes the intended father(s) from having any legal status at birth. Parents who enter into a surrogacy arrangement may apply to the court within six months of their child's birth for a 'parental order' to acquire parenthood. Parental orders are designed specifically for surrogacy situations, and have the effect of extinguishing the status of the surrogate mother (and her husband, wife or civil partner), and granting full parental status to the applicant/s. Following the grant of a parental order, the child will be issued a new birth certificate naming the applicant/s as the child's parent/s.

### Donor insemination

Donor insemination involves using donor sperm. This can be obtained by using an anonymous sperm donor (from a sperm bank), or using a known donor or a friend. If a baby is conceived in a UK licensed fertility clinic or at home and the couple are in a civil partnership or married, then the non-birth mother will automatically be the second legal parent and will be named as such on the birth certificate.

If the couple are not in a civil partnership or married, but the baby is conceived in a clinic they will need to complete a simple form at the clinic for the non-birth mother to be the legal parent, and to appear on the birth certificate. If the baby is conceived at home then the non-birth mother will need to apply to adopt the child to gain legal rights.

Regardless of the method of conceiving the donor will have no legal parenthood status.





# Healthy Diet and Exercise

## Glossary

**Calories** - refer to the energy people get from the food and drink they consume

**Obesity** - has been defined by the National Institutes of Health (the NIH) as a BMI of 30 and above.

**BMI** - This is a numerical value of your weight in relation to your height. A BMI between 18.5 and 25 kg/m<sup>2</sup> indicates a normal weight. BMI is a person's weight in kilograms (kg) divided by his or her height in meters squared.

**Nutrition** - The process of providing or obtaining the food necessary for health and growth.

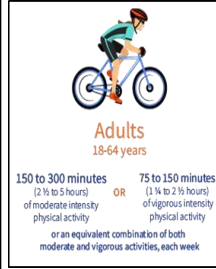
**Veganism** - A diet where a person does not eat or use animal products.

**Vegetarianism** - A diet where a person does not eat meat or fish

## The Eat Well Plate



## How much exercise should you do?



Jogging or running

Racewalking

Hiking uphill

Cycling more than 10 miles per hour or steeply uphill

Swimming fast or lap swimming

Aerobic dancing, fast dancing, step aerobics



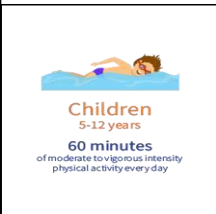
Heavy gardening with digging, hoeing, shovelling heavy snow, moving or pushing heavy objects, carrying loads of 50 pounds on level ground or 25 pounds or more upstairs.

Martial arts

Playing sports with lots of running such as basketball, hockey, soccer

Singles tennis

Court sports such as handball, racquetball, squash



## Impacts of poor Nutrition

### Short term:

- stress,
- tiredness
- limit capacity to work,

Long term it can contribute to the risk of developing some illnesses and other health problems such as:

- being overweight or obese
- tooth decay
- high blood pressure
- high cholesterol
- heart disease and stroke
- type-2 diabetes
- osteoporosis
- some cancers
- depression
- eating disorders.

## What does 1 portion of your 5 a day look like?

- 80g of fresh, canned or frozen fruit and vegetables
- 30g of dried fruit – which should be kept to mealtimes
- 150ml glass of fruit juice or smoothie – but do not have more than 1 portion a day as these drinks are sugary and can damage teeth
- Just 1 apple, banana, pear or similar-sized fruit is 1 portion each.
- A slice of pineapple or melon is also 1 portion,
- 3 heaped tablespoons of vegetables is another portion.



## Where to get more help and support

- Parents and trusted family
- School Staff and Wellbeing Team
- NHS Eat Well: <https://www.nhs.uk/livewell/eat-well/>
- British Nutrition Foundation: <https://www.nutrition.org.uk/healthyliving/lifestages/teenagers.html>
- Kids Health: <https://kidshealth.org/en/teens/dieting.html>