





Knowledge Organisers

Year 9
Summer Term

Name: ______



Instructions for how to use your Knowledge Organiser in Year 9



After school, every day, you should learn 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 hou**r on each subject. You may use your purple homework book to complete tasks neatly.

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

Reading at home

There is also an expectation that you should read a book of your choice for 30 minutes everyday. This should be signed off in your planner by a parent.



Take pride in your work!

- Each night, write the date and title and underline it neatly with a ruler.
- Label it Subject 1 and then rule off after the self-testing is completed. Then Subject 2 and self-test.
- Use a black or blue pen for your selftesting.
- These notes will then form your revision when you prepare for assessments, so you need to be able to read them!



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 9 Summer Term 2: Writing to Present a Viewpo*









Ethos (character): known as "the appeal to authority" or "the appeal to credibility." This is the method in which a person relies on their credibility or character when making an appeal or an argument.

<u>Pathos (emotions):</u> known as "the appeal to emotion." Pathos refers to the method of trying to persuade an audience by eliciting some kind of emotional reaction.

logos (logic): known as "the appeal to reason." This method involves using facts and logical reasoning to support an argument and persuade an audience.

Kairos (time or moment): devices in this category are dependent on the idea that the time has come for a particular idea or action. The very timeliness of the idea is part of the argument.

Devices to include:

- Anecdote
- Statistics
- Repetition
- Triple Emphasis
- Hyperbole
- Rhetorical Questions
- Voice of the Expert
- Direct Address

<u>Discourse Markers</u>		
Furthermore	It is clear that	Obviously,
Despite the evidence is clear that	Evidently	Clearly
Overwhelmingly evidence indicates	Conversely	It is apparent that

<u>Vocabulary bank</u>		
Seismic shift	cajoling	Detrimental
Heinous	exacerbate	exacerbate
adamant	Irrevocably	Paramount
Dispel	Ephemeral	Modicum

Method	Example
Anadiplosis	rely on his honour—honour such as his?
Anaphora	We cannot we should not we must not
Chiasmus	Working hard? Or hardly working?
Epistrophe	Of the people, by the people, for the people
Oxymoron	cruel kindness
Litotes	not a bad singer



Model Paragraph

In 2020, the RSPCA rescued a shocking 1,246 dogs from the streets, in 2021, the figure was 1,754, in 2022 it was a staggering 2,325. How much longer are we going to ignore the problem of abandoning poor, vulnerable, weak and helpless animals? We are supposed to be kind creatures, creatures who care, creatures who nurture – but these figures simply do not support the evidence. We are becoming creatures who abandon, creatures who lack empathy, creatures who harm. The light burden that they put on our lives, results in them bearing a heavy burden at our hands. Let us make a change today.

Maths Year 9 Summer 1: ANGLE FACTS INCLUDING ON PARALLEL LINES

Key Concepts

Angles in a triangle equal 180°.

Angles in a quadrilateral equal 360°.

Vertically opposite angles are equal in size.

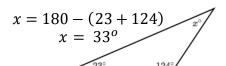
Angles on a straight line equal 180°.

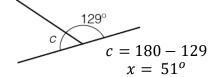
Base angles in an isosceles triangle are equal.

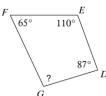
Alternate angles are equal in size.

Corresponding angles are equal in size.

Allied/co-interior angles are equal 180°.

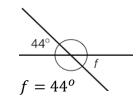


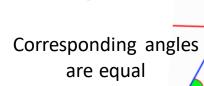


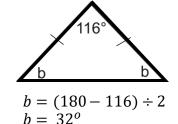


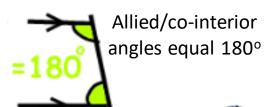
$$? = 360 - (65 + 110 + 87)$$
$$? = 98^{\circ}$$

Examples









Alternate angles are

equal

Allied/co-interior



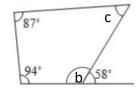
Key Words

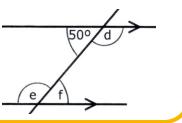
Angle Vertically opposite Straight line Alternate Corresponding Allied Co-interior

Questions

Calculate the missing angle:







G18



Maths Year 9 Summer: TYPES OF ANGLE AND ANGLES IN POLYGONS

Key Concepts

Regular polygons have equal lengths of sides and equal angles.

Angles in polygons

Sum of interior angles = $(number\ of\ sides - 2) \times 180$

Exterior angles of **regular** polygons = $\frac{360}{number\ of\ sides}$

Types of angle

There are four types which need to be identified – acute, obtuse, reflex and right angled.

Examples

Acute is less than 90°

Obtuse is between 90° and 180°

Right angled is 90°

Reflex is between 180° and 360°

Regular Pentagon

Exterior angles

$$=\frac{360}{5}=72^{0}$$

Sum of interior angles

$$= (5-2) \times 180$$

= 540°

Interior

angle =
$$\frac{540}{5}$$
 = 108°

Questions

- 1) Calculate the sum of the interior angles for this regular shape.
- 2) Calculate the exterior angle for this regular shape.
- 3) Calculate the size of one interior angle in this regular shape.

MATHSWATCH

G11, G19

Key Words

Polygon
Interior angle
Exterior angle
Acute
Obtuse
Right angle
Reflex

Maths Year 9 Summer 1: PYTHAGORAS AND TRIGONOMETRY

Key Concepts

Pythagoras' theorem and basic trigonometry both work with right angled triangles.

Pythagoras' Theorem – used to find a missing length when two sides are known

$$a^2 + b^2 = c^2$$

c is always the hypotenuse (the longest side)

Basic trigonometry SOHCAHTOA - used to find a missing side or an angle



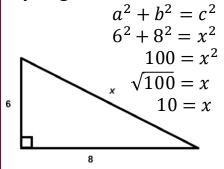




When finding the missing angle we must press **SHIFT** on our calculators first.

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of CALCUTTA

Pythagoras' Theorem



$$a^{2} + b^{2} = c^{2}$$

$$a^{2} + 8^{2} = 12^{2}$$

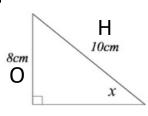
$$a^{2} = 12^{2} - 8^{2}$$

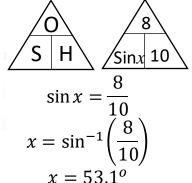
$$a^{2} = 80$$

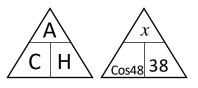
$$a = \sqrt{80}$$

$$a = 8.9$$

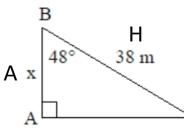
Examples







$$\cos 48 = \frac{x}{38}$$
$$38 \times \cos 48 = x$$
$$x = 25.4m$$

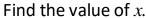


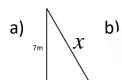
MATHSWATCH

G30, G35a, G35b

Key Words

Right angled triangle Hypotenuse Opposite Adjacent Sine Cosine Tangent

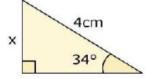












Science Year 9 Summer Term: Cellular processes and Separation techniques



Glossary

Microscope – makes objects look bigger by making an enlarged image of them.

Specialised cells – cells which have special features to perform particular functions.

Enzyme— a protein produced by living organisms that acts as a catalyst.

Diffusion – spreading of particles from regions of high to regions of low concentration.

Osmosis – movement of water molecules across a partially permeable membrane, from a dilute solution to a more concentrated one.

Active transport– movement of particles across a cell membrane, usually from low to high concentration, against a concentration gradient. This requires energy.

States of matter – one of 3 different forms a substance can have: solid, liquid or gas.

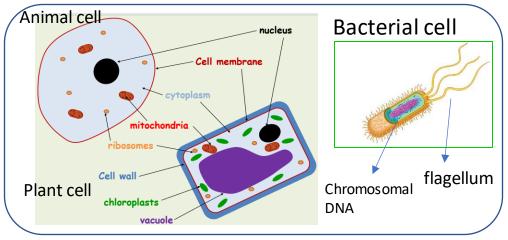
Mixture – a substance containing 2 or more different substances that are not joined together.

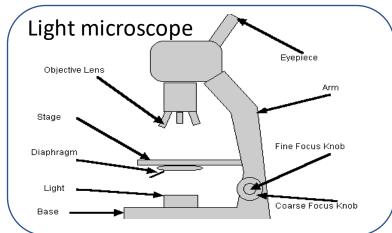
Filtration – using a filter to separate insoluble substances from a liquid. E.g sand and water.

Crystallisation— separating the solute from the solution by evaporating the solvent. E.g. salt and water.

Chromatography— a technique used for separating the components of a mixture. E.g. inks.

Distillation – separating a liquid from a mixture by evaporating the liquid and then condensing it so it can be collected. E.g. ink and water.



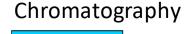


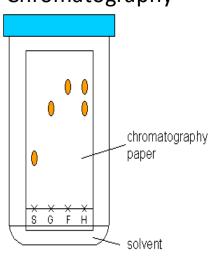


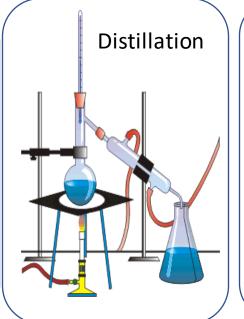
Enzyme lock and key model

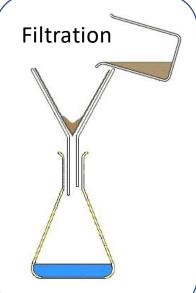
Solution - A mixture of a solute and solvent.
Solute - A dissolved substance.

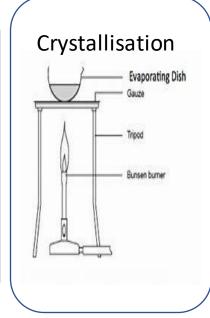
Solvent - The liquid a substance is dissolved in.











Catholic Christianity Unit 2 Practices 2.1 The sacramental nature of reality

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- Ensure you know the MEANING and EFFECT of each sacrament – you should be able to add to what is listed below!!
- Baptism initiation, part of the Gods family, journey of faith.
- Communion look at in 2.2 the most important sacrament
- Reconciliation- heal a broken relationship with God, start again, closer to God
- Confirmation initiation, renew promises at Baptism, confirm our faith – active role in the Church
- Anointing of the sick healing, prayer and anoint those who are vulnerable, make them stronger, feel comforted bu God and others
- Marriage vocation be committed to one other for life, declare love before God
- Holy Orders vocation, dedicate your life to God and his people, provide the sacraments – eucharist/reconciliation

Source of wisdom and authority – Catechism (Catholic teachings) – 1210-1211 Christ instituted the sacraments - through the sacraments Christ is with us at key times in our lives, initiation, healing, vocation, there is an overlap with our natural and spiritual lives.



Importance of the sacraments for Roman Catholics

Receive Gods grace and blessing/ Mark the journey of faith/ Strengthen our faith/ Bring us closer to God — outward sign of invisible grace = faith

Divergent Christian practice

Orthodox Christians and Anglicans believe and practice the same as Catholics (seven sacraments).

Most Protestants only accept two sacraments-Baptism and Holy Communion as needed for salvation because they believe these are the only two sanctioned by Jesus in the Bible.

Some Protestants Baptists and Pentecostals believe only adults should be baptised when they agree to what is happening.

Salvation army and Quakers do not have any at all, they believe sacraments get in the way with our relationship with God, they believe the things we say and do are a distraction.

2.2 Liturgical worship within Catholic Christianity (The Mass)



'source and summit of Catholic life'CCC

Source of wisdom and authority - Lumen gentium

'really partaking of the body of the Lord in the breaking of the Eucharistic bread, we are taken up into communion with Him and with one another. Because the bread is one, we though many, are one body, all of us who partake of the one bread. In this way all of us are members of His body'

Nature and significance of the Mass

- At the Last supper Jesus instituted the Mass 'Do this in memory of me' obligation to go to Mass as Jesus commanded us to.
- We receive the body and blood of Jesus, this is a reminder that Jesus is really present and with us in this sacrament (transubstantiation).
- Commanded by God -keep the Sabbath day holy, going to Mass to receive the sacrament fulfils this commandment. Show our love of God.
- Come together as Gods family to show thanks for what he done for us – Eucharist means thanksgiving.



Structure of the Mass

Four parts;
Introductory Rite
Liturgy of the Word
Liturgy of the Eucharist
Concluding Rite/ final blessing

Divergent attitudes to liturgical worship –Evangelical Christians Protestant – Non Liturgical

Worship without set prayer - believe worship comes through the Holy Spirit and so should be spontaneous — EXTEMPORE —without preparation. Music helps to express faith and connect with God (Gospel music).

Protestant - Evangelical Christians

Belief that Jesus is the only priest so there is no need for rituals – do not agree with Liturgical worship. Much more participation from the congregation – expressing their approval of what the leader says – 'Amen' 'Hallelujah' 'Praise the Lord'

Catholic Christianity Unit 2 Practices

2.3 The funeral rite as a liturgical celebration of the Church



Roman Catholic Practices – why is each part important?

Home

Takes place the night before the funeral is held in the family home – although it can take place in a funeral home or Church.

Service – readings/reflections/ prayers

Some will have the body kept in a church – with a rota of people keeping vigil.

Church - The funeral Rite

The Church encourages Catholics to have a Requiem Mass for the repose of the souls of the dead.

The Funeral Liturgy is a time to remember and mourn the loss of the person but it is also an act of worship with hope in God and the risen Christ.

The priest incenses the coffin and sprinkles holy water onto it, final prayers and chants at the end of the funeral rite –

'May the angels lead you into paradise, may you have eternal rest'

Cemetery

Rite of committal – final act of the community of faith in caring for the body of the dead person.

Normally celebrated beside the open grave. The tomb/burial plot is blessed.

There is a reading – about the resurrection.

Prayers of farewell and commendation (praise for someone).

Coffin is sprinkled with holy water and then lowered into the ground.

Say the eternal rest. The priest blesses the mourners.



Aims of the funeral rite

Communion with the deceased

The *funeral mass* allows there to be a link with the deceased: We are joined together through prayer, we gather in communion.

2. Communion of the community

In *committing the body* the community expresses the hope that, with all those who have gone before them marked with the sign of faith, the deceased awaits resurrection and a reunion with God in heaven.

3. Proclamation of eternal life

Proclamation of the Christian faith in the Paschal mystery and assures the Catholic community of their eternal life, can give hope to anyone – even non Catholics, whatever their faith.

The Christian who dies in Christ Jesus is 'away from the body and at home with the Lord' – catechism.

Preparing my funeral – Vincent Nichols (Archbishop of Westminster)

Wrote a pamphlet outlining what can be part of the Liturgical prayer/hymns/ whether it should be a Mass/ readings/ burial or cremation.

HOW MIGHT THIS HELP ROMAN CATHOLICS?

Catholic Christianity Unit 2 Practices

2.4 Prayer – 'raising of hearts and minds to God'



The importance of prayer – why do Catholics pray?

Get life into perspective – step aside from the pressures of life and focus on God

Thanksgiving – helps us not to be selfish, to realise we depend on others.

Confession – helps us to not bottle up guilt, admit what we have done wrong, come to terms with it.

Supplication – feel we are doing something for someone else, may inspire us to help in a more active way.

Contemplation/meditation-bring us inner peace, feel refreshed.

Closer to God – enables us to talk with him and become closer to him.

Worship God – we can show our love of God through prayer.

- Nature and significance of different types of prayer
- Different types of prayer
- Prayer can be FORMULAIC Set Liturgical or EXTEMPORE less formal
- Formulaic used in services/sacraments/ personal prayer Hail Mary, Our Father...
- Extempore personal prayer

Vocal

Use words out loud/ mentally to express prayer

Meditation

Thinking about religious matters

Contemplation

• Communion with God – together with God

Source of wisdom and authority- Matthew 6:5-14 – the Lords prayer, the only prayer Jesus gave to us An example of FORMULAIC prayer

Importance of different types of prayer

Worship in the home: this is the heart of people's lives and can bring the family together.

Private worship: communicate one to one and express difficult emotions.

Public worship: gives a sense of belonging and community, encourages us to make friends and feel our faith is strong.

Prayer for different moods: sometimes people may need to be serious, or joyful or sorrowful.



Catholic Christianity Unit 2 Practices

2.5 The role and importance of forms of popular piety

CCC 'Piety extends the liturgical life of the Church, but does not replace it'







The Rosary is a form of prayer, it means 'crown of roses' because the circle of beads look like a crown.

The Rosary is often used in private prayer at home or in church . it might be used with others in Church. It is sometimes said on the evening before a Funeral Mass when the coffin is brought into Church.

Catholics encourage using this as a way of giving honour to Mary.

Some Anglicans may use it in private prayer.

Most Protestants would not use it as they do not put as much importance onto Mary. They believe that Mary had other shildren, was not the immaculate conception and the not assume into heaven.

Stations of the Cross

This is a series of prayers and mediations that honour the passion and death of Christ. There are 14 stations on the walls of a Church.

They are used in a Catholic Church on a Friday, especially in Lent and Good Friday. In the early Church people would visit the scenes in Jerusalem, Catholics now practise this for people who cannot go.

Some Anglican, Methodist and Lutheran churches contain the stations of the cross and they provide a focus during Holy Week for a lot of Christian denominations.

Some Protestants do not follow them because some are not based on the Bible and some believe it is idolatry (worshipping idols)







Eucharistic adoration

This is when the Blessed sacrament is adored and worshipped. Catholic believe that Christ is truly present.

The Consecrated Host is placed into a Monstrance on an altar and adored. It may be used in a Parish to focus people on prayer.

Many Catholics perform Eucharistic adoration for an uninterrupted hour known as Holy Hour, when they keep watch with Christ for an hour. This reminds them of the disciples in the Garden of Gethsemane.

Most Protestants do not practise this because they do not believe in transubstantiation. They believe the elements are just symbols and so Christ is not truly present.

Catholic Christianity Unit 2 Practices 2.6 Pilgrimage



Source of wisdom and authority

The Catechism teaches that places of pilgrimage are the 'most appropriate places for prayer'

Nature, history, purpose of pilgrimage

A Pilgrimage is a religious journey or holiday taken by a believer in a particular faith

First pilgrimages were to Jerusalem and the Holy Land – Jesus – life/death

Rome – Tomb of the martyrs – Peter and Paul, sites connected to the life and events of the Apostles.

Later – visit other places **connected to the Saints** and Our Lady – as we hear about their lives and events happen – apparition.







Where people visit and why

Rome- History – Peter and Paul, Vatican City – Pope, places.

Lourdes – Bernadette and Mary, miracle cures, strengthens people in their faith.

Walsingham – Mary, place for both RC and Anglican Christians - UK

Jerusalem- part of the Holy Land, so many sites and sacred places associated with Jesus and the early Church – site of the death and resurrection of Jesus.

Go to become closer to God, to ask for forgiveness, seek a cure, join others in faith, visit historical places linked to our religion, inspired by Christ, Mary, one of the saints and want to visit a place associated with them.

Divergent Christian understandings about whether pilgrimage is important today.

Protestant Christians have been critical.

Should not emphasise 'holy places' as we can **encounter God anywhere.**

Opposed to worshipping **Mary – idolatry**, they believe she had other children and should not be revered as the 'virgin Mary' Should **not venerate the Saints** – only God can and should be venerated.

Some Protestants may go to places like Iona and Taize but not Walsingham and Lourdes.

Catholic Christianity Unit 2 Practices 2.7 Catholic Social Teaching

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Catholic Academy To

- Love God and Love of neighbour
- Jesus told us to do this; it is the Greatest Commandment
 Mark 12:29-31.
- It is at the heart of everything Catholics do.
- 'Love is the fulfilment of all our works' CCC

CAFOD

Development programmes – long term help – bring about independence.

Disaster and emergency - immediate response – medication, food, water, shelter.

Raising awareness – educate us, we need to know about the suffering of others and what we can do to help

Speaking out on behalf of the poor to bring social justice – join campaigns – 'drop the debt', 'fair trade' – be a voice for the poor.

Why they help

Faith in action, follow the example of Jesus, fulfil teachings — love your neighbour, treat others as you would like to be treated, Church teaching — we have a responsibility to help those who are in need.



Source of wisdom and authority – Matthews gospel. Parable of the Sheep and the Goats – a teaching from Jesus reminding people the way to show love of God is through love of each other. We must help those who are in need in society. This story also reminds us we are judged based on how we have lived our life – must do good!

Social teachings on – justice, peace, reconciliation

Justice - God will reward the just; God wants people to treat each other fairly and with respect.

The rich should share with the poor 'anyone who does not do what is right is not a child of God, nor is anyone who does not love his brother' -1 John 3:10

Peace and reconciliation – at the heart of the Christian gospel
Saint Paul said – 'Let us therefore make every effort to do what leads to peace...'
'Earthly peace is the image of the peace of Christ' CCC
Christians should be committed to forgiveness and reconciliation because it has

Source of wisdom and authority.

Evangelli Gaudium – 'joy of the Gospel' Pope Francis, reminding Catholics to include the poor. Follow the teachings of Christ and promote social justice. Respect people human rights, need to come together to help one another

the power to end all conflict. We must forgive those who wrong us.

Catholic Christianity Unit 2 Practices 2.8 Catholic Mission and Evangelism



- History and significance of evangelism
- In order for the Church to grow and Christianity to survive we have always had missionaries – people who will go to others to preach the gospel.
- E.g. Disciples Saint Peter and Saint Paul visited lots of places telling people about Jesus Christ and because of them the Church began as people believed.
- Today the decline in faith is where it used to be strongest and from where the Missionaries were sent – Europe
- It is important because -
- Share our faith out of love
- Faith helps us to cope with life
- Decline in the religion
- Pope Francis said Evangelii Gaudium Catholics should 'renew their personal faith – produce an enthusiasm and attractiveness in society'. <u>Source</u> of wisdom and authority.
- We might then inspire others to follow us and be a part of the Church
- Help people who are in need.

Divergent ways it is put into practice (Roman Catholic) – locally nationally globally – SUPPORT FAITH

Locally — within a parish — sacraments, Mass, support schools, festivals (Christmas and Easter), discussion and prayer groups, homily in Mass — learn about how God wants us to behave, Social facilities — brownies, cubs etc. lunch clubs for the elderly, parent and toddler groups **Nationally** — Catholics attend national events to share faith, have a career, vocation to share faith (teacher), SVP society.

Globally –the Catholic Church runs 'mission diocese' -1100 Diocese in our world. It provides teaching schemes - training priests and support for the religious communities (nuns and Monks) and the building of Chapels, Churches, orphanages and schools across the world.

Main concerns are about those who proselytise — converting others Trying to evangelise in a multi faith/ethnic society can be seen as prejudice and discrimination

Can lead to arguments and violence

Catholics **do not agree** with those who proselytise – they argue we should **live the gospel without putting pressure on others**.

However some Christians see the need to actively convert as a duty they must fulfil in order to save others.

History Year 9: The Cold War- When is a war not a war?





Key Words

Atomic Bomb - The belief that strong countries should have the biggest and strongest army and navy possible.

Hiroshima and Nagasaki

Communism- Agreements between countries to work together
Capitalism- The belief that a strong country must have a large empire

Cold War- Being extremely loyal to and proud of your country Arms Race-Took place on July 24th

in Sarajevo. Started a chain of events that start the First World War

Berlin Wall
Reasons for the Wall

People living in West Berlin enjoyed a high standard of living.
For those living in East Berlin and East Germany life was hard and standard of living was poor. They were constantly reminded of their differences. Between 1945 - 60 it is thought that 3 million people crossed from East to West Berlin.

Consequences

- Flow of refugees reduced to a trickle
- propaganda victory for the 'West' - they claimed Communist countries had to build a 45km wall to imprison people

August 1945 at 8.15am, an American bomber plane dropped the world's first atomic bomb on the Japanese city of Hiroshima. 80,000 people died as a direct result of the blast, and another 35,000 were injured. Even after this devastation, Japan did not surrender.

Three days later, another nuclear bomb was dropped by the Americans on the Japanese city of Nagasaki. At least 74,000 people died in the Nagasaki blast or from subsequent injuries.

Berlin Blockade

Stalin, in response to West uniting their sectors of Berlin, blockaded the city. This placed millions into potential starvation.

In response, West launched airlift of supplies for eleven months. Consequences

- 1st conflict of Cold War, no one knew how it would turn out. Would the planes be shot down, would this lead to war? Led to increased tension between the superpowers.
- NATO and Warsaw Pact set up afterwards. This meant a future war would now include members of both alliances.

Cuban Missile Crisis

After the USA's failed attempt to overthrow the Cuban leader Castro, USSR's leader Khrushchev saw an opportunity to challenge the USA. He argued he wanted to install the missiles with nuclear war heads in Cuba to stop the US taking any action against Cuba. The USA also had similar missiles based in Turkey very close to the USSR. Kennedy believed the missiles were a direct threat to the USA as Cuba was only 90 miles off the US coast. It sparked a 13 day stand off that could have brought the world to nuclear annihilation.

Consequences

- The two sides sign The Nuclear Test Ban Treaty was signed. This banned testing of nuclear weapons above ground.
- A hotline was set up to allow direct communications between Washington DC to Moscow to avoid any future crises coming so close to a war
- Khrushchev was made to look weak in the eyes of the Russian people for removing the missiles

Kennedy had stood up to the Soviet Union and forced the missiles to be removed

Capitalism

- Low taxes, poor should work way out of poverty, accept society will be unequal.
- Private ownership of Land and businesses. Owners keep profits.
- Free elections/Press
- Tend to be popular with the rich/owners of industry

Communism

- Believe in an equal society,
 <u>confiscate</u>
 property of rich
 to share with
 poor, encourage
 <u>revolution</u> against
 'capitalist' class
 (rich),
- Internationalist
- <u>Dictatorship</u>
- Control all media
- Lack of personal freedom



To determine how significant something or someone is, think about, is it;

Remarkable - include the scale, numbers involved

Resulted in change - include what changes or developments occurred at the time and later

Revealed - include what attitudes were at the time

Remembered - Include how do we remember today

Relevant - how does the event/person/development affect people

today, what lessons can be learnt

Geography Year 9 Summer: What Challenges does the UK Face?

Key Questions			
Why does the north		What are the	
- south divide exist	What conflicts can	advantages and	
in the UK?	arise at a national park?	disadvantages of	
		H52?	
	What are the		
Ta the Lendon	advantages and		
Is the London	disadvantages of	Does the UK have a	
underground	Heathrow	housing problem?	
sustainable?	airport		
	expanding?		
		What are the	
What has caused		advantages and	
the large increase	How could the council	disadvantages of	
in the number of	house shortage be	building on	
people migrating to	resolved?	greenfield,	
the UK?		brownfield and	
		greenbelt land?	

Diagrams





	Keywords
Life Expectancy	How old a person in a particular area is expected to live to on average.
Infrastructure	Physical services serving an area such as roads and power supplies.
Sustainable	Something that can continue to be done without it having damaging consequences that might limit that activity in the future.
Stakeholder	A stakeholder is a party that has an interest in a company and can either affect or be affected by the business
Greenfield Site	Undeveloped land
Brownfield Site	Previously developed land.
Green belt	A specially designated area of countryside protected from most forms of development.
National	A park in use for conservation purposes,
Park	created and protected by national governments.
Council	a house owned by a local council and
House	rented out to tenants for a reduced cost





Geography Year 9 Summer: How am I Global Citizen?



	Key Questions	
How is a carbon footprint calculated?	What factors can increase or decrease our carbon footprint?	Why is energy use increasing?
What is the impact of transporting food over large distances on the environment?	What are the negative impacts of fast fashion?	What is the sustainability pf current waste management systems?
What impact is plastic waste having on the environment?	Why is Fairtrade so important to improve equality?	What is the difference between renewable and non-renewable energy?

Energy use per capita, 2015 Annual average per capita energy consumption i	s measured in kilowatt-hours per person per	Our World in Data			
			Section 1	0196-7914 0196-7914	Description of the second of t

	Keywords
Carbon Footprint	The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation or community.
Sustainability	Something that can continue to be done without it having damaging consequences that might limit that activity in the future.
GDP	Gross domestic product
Food miles	The distance our food travels to get to our homes.
Fast Fashion	Inexpensive clothing that move quickly from the catwalk to stores to meet new trends.
Resources	A supply of money, materials, staff, and other assets that can be drawn on by a person or organization.
Recycling	The action or process of converting waste into reusable material.
Fairtrade	Trade between companies in developed countries and producers in which fair prices are paid to the producers.



French Summer Year 9

Year 9 Studio 3: Module 5

Grammar

avoir

avoir (to have) is a very useful irregular verb.

j'ai Ihave

tu as you have

il/elle/on a he/she has/we have

There are lots of common expressions which use avoir.

avoir le droit de to be allowed to

J'ai le droit d'aller sur des forums. I am allowed to go on forums.

Possessive adjectives

The words for 'my', 'your' and 'his/her' are different, depending on whether the noun is masculine, feminine or plural.

	masculine	feminine	plural
my	mon père	ma mère	mes parents
your	ton père	ta mère	tes parents
his/her	son père	sa mère	ses parents

Using a variety of structures

You use an infinitive after all of these structures:

- likes and dislikes: j'aime (I like), j'adore (I love), je n'aime pas (I don't like), je déteste (I hate)
- modal verbs: je veux (I want), je peux (I can), je dois (I must)
- je voudrais (I would like)
- the near future tense: je vais (I am going to)

Using different time frames: Which tense to use?

Present Je passe des heures sur Facebook.

I spend hours on Facebook.

Perfect Le weekend dernier, j'ai pris le bus et je suis allé(e) au centre-ville.

Last weekend I took the bus and went to town.

Near future Je vais manger cinq portions de fruits par jour.

I am going to eat five portions of fruit per day.

Studio Grammaire

The infinitive of a verb often means '-ing'.

To use c'est followed by an infinitive, put de between the two of them.

Pour moi, le bonheur, c'est For me, happiness is de jouer au foot. playing football.

de shortens to d'if the infinitive starts with a vowel.

Pour moi, le bonheur, c'est For me, happiness is d'être en famille. being with my family.

French Summer Year 9

Mes droits . My rights

Je n'ai pas le droit ...

J'ai le droit ...

d'aller au MacDo avec mes copains.

d'aller sur des forums.

d'aller sur Facebook.

de jouer à des jeux vidéo le soir.

de regarder la télé dans ma chambre.

de sortir avec mes copains le weekend.

de sortir seul(e).

de surfer sur Internet une heure par jour. I have the right/I am allowed ...

I don't have the right/ I am not allowed ...

to go to McDonald's with my friends.

to go on forums.

to go on Facebook.

to play video games in the evening.

to watch TV in my bedroom.

to go out with my friends at the weekend.

to go out by myself.

to surf the internet for one hour a day.

Mes priorités • My priorities

Mes priorités sont ... My priorities are ...

football. le foot.

la musique. music.

health. la santé.

l'argent. money.

mon chien. my dog. ma famille. my family.

my friends. mes amis.

mes études. my studies/schoolwork.

Je n'aime pas du • I really dislike ... tout....

le racisme. racism.

cruelty to animals. la cruauté envers les

animaux.

la pauvreté dans le poverty in the world.

monde.

la violence. violence.

l'état de la planète. the state of the plane

Les achats • Shopping

J'achète... J'ai acheté ... Je vais acheter ...

des jeux vidéo et des DVD. des vêtements ou des

chaussures.

des produits du commerce équitable.

des produits d'occasion. des produits écolos.

des produits que j'aime.

I buy ...

I bought ...

I'm going to buy ... video games and DVDs. clothes or shoes.

fair-trade products.

second-hand products. 'green' products. products that I like.

Quand? • When?

la semaine prochaine

en général generally, usually yesterday hier le weekend dernier last weekend la semaine dernière last week demain tomorrow le weekend prochain next weekend

next week

Le bonheur • Happiness

Pour moi, le bonheur, c'est...

d'aller à la pêche. d'être avec mon chien.

d'être en famille.

de danser.

de faire les magasins.

de jouer au foot.

de manger de la pizza. de partir en vacances.

de retrouver mes copains. meeting up with my

For me, happiness is ...

going fishing.

being with my dog.

being with my family. dancing.

going shopping.

playing football. eating pizza.

going on holiday.

friends.



Computing Year 9 Summer Term: Programming





Python

Python is a really popular textual programming language. It uses a syntax which lets you type in a line of code and press enter to execute that code.

Python is increasingly popular and used to create apps such as Instagram and Spotify.

Selection

Selection is where decisions are made that affect which instruction are carried out next.

score = INPUT("Enter your score")
IF score > 40 THEN
 print("You have passed!")

ELSE

print("You have failed")

Iteration

Iteration is where a certain set of instructions are repeated. The number of times that the instructions are repeated can be fixed, or can depend on a condition.



Key Terms

Programming: writing computer code to create a program, to solve a problem

Text based Programming:

Programming using text such as Small Basic or Python

Sequence: Sequence means to set down instructions one after another for the computer to run

Algorithm: This sets out a sequence of steps, that, when ran, will carry out a specific task.

Loop: Repeatedly doing a piece of code

Selection: Choosing between possible actions

Variable: A piece of data that you

can alter

Loops

FOR Loops

Will repeat the code inside them a fixed number of times. The number of times that the code repeats will depend on an initial value and the end value.

WHILE Loops

Controlled by a condition at the start of the loop, keeps going while the condition is true, never running the code if the condition is initially false. Will repeat forever if the condition remains true.

Errors

If there is an error in your code it will either not work, or work but not in the way that you want it to. This could be the smallest of errors, errors are called bugs.







DT Year 9 Unit 4: Architecture



Modular building

is a prefabricated building that consists of repeated sections called modules. Modularity involves constructing sections away from the building site, then delivering them to the intended site. Installation of the prefabricated sections is completed on site.

Floor plan

In architecture and building engineering, a floor plan is a technical drawing to scale, showing a view from above, of the relationships between rooms,

Scale model

Scale models are generally smaller than large prototypes such as vehicles, buildings, or people





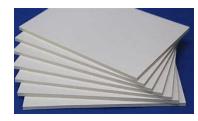




MEASURE TWICE, CUT ONCE!



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



Foam board is a lightweight, versatile and durable type of board used in a range of arts and crafts purposes. Foam board is available in black or white and in a range of sizes from A0 to 43 as well as differing levels of thickness.





Greyboard is made from 100% recycled materials and can be used in many craft construction projects to add extra strength and rigidity. This sturdy **greyboard** gives your craft constructions a stronger feel, either used as backing card or a protective outer layer.





Guy Builds a Modern Castle out of Shipping Containers (interestingengineering.com)

Modular buildings can be erected quickly and at a low cost, and improvements in stock control mean less storage space is needed.

DT Year 9 Unit 5: Crazy Contraptions

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Glossary

Crazy contraptions

A device or machine that looks awkward or old-fashioned, especially one that you do not know how to use.

Kinetic Artist

Relating to or resulting from motion.

Winch

a hauling or lifting device consisting of a rope or chain winding round a horizontal rotating drum, turned typically by a crank or by motor.

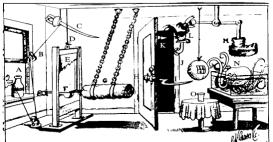
Pulleys

a wheel with a grooved rim around which a cord passes, which acts to change the direction of a force applied to the cord and is used to raise heavy weights.

Chain reaction

a series of events, each caused by the previous one:

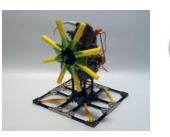






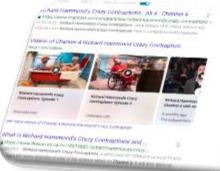
Think of the 'Mouse Trap Game'. There is a system of tubes, steps and winches etc. that allow a mouse to be caught. How could you catch a mouse?













Joseph Herscher, Kinetic designer



Can you solve problems? What would you need to do to enable you to make your bed while you were in the bath? What sort of 'crazy contraption could you create'



Seeing Chain Reaction in Action



Making Chain Reaction Elements



Designing for the Chain Reaction Activity



Chain reaction Resources

Chain Reaction Workshop Elements: 10 Steps - Instructables

Art Year 9 Summer Term: Abstract OP Art mixed media painting

GLOSSARY

Op art is short for 'optical art'. The word optical is used to describe things that relate to how we see.

The style is characterised by abstract patterns, often in black and white, with a bold contrast between background and foreground.

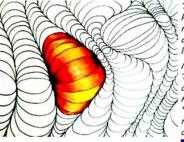
To produce effects that confuse and excite the eye

Optical illusions are images or pictures that we perceive differently than they really are. Put another way, optical illusions occur when our eyes send information to our brains that tricks us into perceiving something that does not match reality.





uses optical illusions. Op art works are abstract, with many better known pieces created in black and white. Op artists put colours, shapes and patterns together in clever ways to create an optical illusion. This can make an image look like it moving! Op art can show hidden images, flashing and vibrating patterns, or shapes and lines swelling or warping.



How to create movement using organic lines, curved

lines and tone. MONOCHROME:

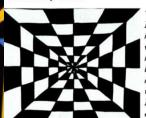
The term monochrome comes from the Ancient Greek -Roman 'monochromos' meanina 'havina one



Use a compass or circular objects to draw 3-4 circles.

Use a ruler to draw vertical and

Trace everything with a coloured pencil-Colour in the whole picture with alternatina colours.

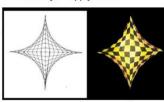


Draw a rectangle and divide it into 4 with a horizontal and a

Now divide with two diagonal

Add more diagonal lines from the vanishing point. Draw the rectangle smaller

each time inside the previous rectangle. Apply colour.



POINTING PENCILS: draw lines radiatina outwards from the

Use curved lines to go produce arches which





Victor Vasarely, was a Hungarian-French artist, who is widely accepted as a "grandfather" and leader of the Op art movement. He was perhaps the first modern artist to realize that Kinetic Art did not have to move. Instead he created an extraordinary series of paintings and sculptures which used geometrical effects to suggest



Josef Albers was a German-born American artist. Albers was a tremendous influence as a teacher as well-He said "One line plus one line results in many meaning:

ILLUSION: a deceptive appearance or impression





OPTICAL ILLUSION: Optical Illusions can use colour, light and patterns to create images that arguably appears to differ from reality.



TROMPE L'OEIL: visual illusion in art, especially as used to trick the eye into perceiving a painted detail a a three-dimensional object.



Identity

PSHE: Year 9 Summer Term: Sexuality and Gender Identity



49-	
	Glossary
Asexual	A person who generally does not experience sexual attraction to any group of people
Androgyny	A gender expression that has elements of both masculinity and femininity
Biological Sex	The physical anatomy and gendered hormones one is born with.
Bisexual	A person who experiences sexual, romantic, physical, and/or spiritual attraction to people of their own gender as well as a nother gender
Cisgender	A description for a person whose gender identity, gender expression, and biological sex all align
LGBTQ+	Lesbian Gay Bisexual Trans Queer / Questioning + = Other
Sexuality	A persons sexual preference or orientation. Who they are attracted to.
Gender Dysphoria	Where a person experiences distress due to a mismatch of their biological sex and their gender identity.
Heterosexual	A medical definition for a person who is attracted to someone with the other gender.
Homosexual	A medical definition for a person who is attracted to someone with the same gender.
Transvestite	A person who dresses as the opposite gender expression for any one of many reasons, including relaxation, fun, and sexual gratification.
intersex	A person with a set of sexual anatomy that doesn't fit within the labels of female or male (e.g., XXY phenotype, uterus, and penis) $ \frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left($
Pansexual	A person who experiences sexual, romantic, physical, and/or spiritual attraction for members of all gender identities/expressions
Transgender	A person whose gender identity is the binary opposite of their biological sex, who may undergo medical treatments to change their biological sex
Transsexual	A person whose gender identity is the binary opposite of their biological sex, who may undergo medical treatments to change their biological sex
: Gender	Gender identity is a way to describe how you feel about your gender. You might

identify your gender as a boy or a girl or something different. This is different from

your sex, which is related to your physical body and biology.

Important legal changes that have affected LGBTQ+
people in the UK

- 2000: Government lifts the ban on lesbians and gay men serving in the Armed Forces.
- 2001: Age of consent for gay/bi men is lowered to 16.
- 2002: Equal rights are granted to same-sex couples applying for adoption.
- 2003: Repeal of Section 28 Section 28 was a law that made it illegal to talk positively about homosexuality in schools.
- 2003: A new law comes into force protecting LGBT people from discrimination at work. Until 2003 employers could discriminate against LGBT people by not hiring them or not promoting them, just because of their sexual orientation or gender identity.
- 2004: Civil Partnership Act is passed.
- 2004: Gender Recognition Act is passed This Act allowed trans people to change their legal gender. This means that they can get a new birth certificate that reflects who they really are, which helps for future legal processes like marriage.
- 2007: It becomes illegal to discriminate against people because of their sexual orientation or gender identity when providing them with goods or services.
- 2008: The Criminal Justice and Immigration Act makes 'incitement to homophobic hatred' a crime.
- 2009: A new law gives better legal recognition to same-sex parents.
- 2013: The Marriage (Same-Sex Couples) Act is passed.

Trans Teens and Children

If a child is under 18 and thought to have gender dysphoria, they'll usually be referred to a specialist child and adolescent Gender I dentity Clinic (GIC). Treatment is a rranged with a multidisciplinary team (MDT). This is a group may include specialists such as mental health professionals and paediatric endocrinologists. Most treatments offered at this stage are psychological, rather than medical or surgical.

If the child is diagnosed with gender dysphoria and they've reached puberty, they could be treated with gonadotrophin-releasing hormone (GnRH) analogues. These are synthetic hormones that suppress the hormones naturally produced by the body. They also suppress puberty and can help delay potentially distressing physical changes caused by the body becoming even more like that of the biological sex, until they're old enough for other treatment options. The effects of treatment with GnRH analogues are considered to be fully reversible, so treatment can usually be stopped at any time. Teenagers who are 17 years of age or older may be seen in an adult gender clinic. They are entitled to consent to their own treatment and follow the standard adult protocols.

Gender Reassignment's urgery will not be considered until a person has reached 18 years of age.

Schools and LGBTQ+ Students

All Schools are required to have a policy relating to LGBTQ+ Students and how they are supported in schools. However each case will be dealt with on an individual basis as to what is best for the students. Discussions will be conducted with Safe guarding team, parents, wellbeing teams and appropriate external agencies involved in the students care.

Where to get more help and support

- Parents and trusted family members
- Teachers and School Staff including School Nurse and Wellbeing Team
- Your Doctor or Community Nurse
- NHS Online
- Young Stonewall: https://www.voungstonewall.org.uk/
- The Proud Trust Local Support groups: https://www.theproudtrust.org
- Friends and Family of Lesbians and Gays: https://www.fflag.org.uk/



PSHE Year 9 E-Safety & Digital Citizenship



Glossary

E-Safety Strategies and systems to help people stay safe online.

Digital Citizenship Accepted ways on behaving whilst engaging in online activity.

Cyber Bullying The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature

Hacking Gaining access to systems and computers which you do not have permission to access. Can be for malicious purposes.

Grooming When someone uses the internet to trick, force or pressure a young person into doing something they wouldn't normally do, this could be sexual behaviour or radical beliefs.

Digital Footprint The information about a particular person that exists on the internet as a result of their online activity. It can not be deleted.

Where to get more help and support

- Parents and trusted family.
- School Staff and Wellbeing Team
- Directly to the police.
- Report any inappropriate behaviour to the website.
- NSPCC https://www.nspcc.org.uk
- Childline Helpline: 0800 1111(24 hours, every day) / https://www.childline.org.uk
- CEOPS https://www.ceop.police.uk/safetv-centre/

10 strategies for staying safe online

- 1. Don't post any personal information online like your address, email address or mobile number.
- 2. Think carefully before posting pictures or videos of yourself.

 Once you've put a picture of yourself online most people can see it and may be able to download it, it's not just yours anymore.
- 3. Keep your privacy settings as high as possible.
- 4. Never give out your passwords.
- 5. Don't befriend people you don't know.
- 6. Don't meet up with people you've met online. Speak to your parent or carer about people suggesting you do.
- 7. Remember that not everyone online is who they say they are
- Think carefully about what you say before you post something online.
- 9. Respect other people's views, even if you don't agree with someone else's views doesn't mean you need to be rude.
- 10. If you see something online that makes you feel uncomfortable, unsafe or worried: leave the website, turn off your computer if you want to and tell a trusted adult immediately.

Digital Footprints and Online Behaviour

A person's digital footprint cannot be deleted and can be accessed at any time through a simple social media or search engine search. To promote a positive digital footprint there are 5 simple rules:

- 1. Would you want your grandmother to see it? Is that photo/video/comment a ppropriate for the wider public audience? Would you want a future partner or employer to see it? Once something is online it stays forever.
- 2. Do you really think that is private? Just because your privacy settings are high doesn't mean that someone else can't repost or screenshot what you have posted.
- 3. Would you say it to someone's face? If you wouldn't say it to someone face, don't say it online. Portray yourself in a positive way as this may be seen by future friends, partners or employers.
- 4. Is this your work to publish/use? Reposting or using someone else's work if fine if you credit the original owner creator. If you don't it is plagiarism.
- 5. Would you want someone to do it to you? How would you feel if someone posted a picture of you or made a comments a bout you that you didn't like or want online?

Online Behaviour and the Law

- The Computer Misuse Act 1990 says you can't impersonate or steal someone else's identity online. This means that writing a status on social media pretending to be your friend is technically against the law as it creating fake profiles or websites.
- It is a criminal offence under the Communications Act 2003 to send messages using any public electronic communications network, such as Twitter or Facebook, which are grossly offensive or of an indecent, obscene or menacing character.
- It is a criminal offence under the Criminal Justice and Courts
 Act 2015 for someone to disclose private sexual images of you
 online or offline without your consent with the effect of
 causing you distress. This is more commonly known as
 'revenge porn'.
- There are a range of other offences which the police can investigate including harassment, harassment when someone fears violence, and stalking under the Protection from Harassment Act 1997.

Each case will be taken on an individual basis looking at context and evidence to determine if a crime has been committed. If you believe you have been the victim of a crime screen shot the evidence and speak to the police.

