Art	Observational Drawing – Butterfly sculptures part 2	Year 9	Term 2

1 – Sculpture

Sculpture: an artistic form in which materials are worked into three-dimensional art objects.

Form: refers to three dimensional objects. While shapes have two dimensions (height and width), forms have three dimensions (height, width and depth).

Collage: artwork in which pieces of paper, photographs, fabric and other materials are arranged and stuck down onto a supporting surface.

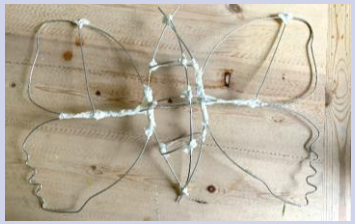
2 – Building a butterfly sculpture

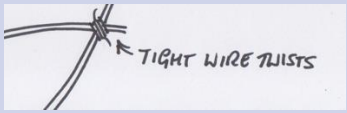
a- Build a wire structure:

- Use wire twists or masking tape to attach parts
- Create a cigar shaped body for your butterfly
- Follow a paper template to bend the wings to shape
- Make your wings symmetrical
- Attach them to the body
- Reinforce the structure with additional wire. It should be sturdy

b- Cover your structure in cling film

c- Use a hairdryer to shrink the cling film





d- Trace the patterns with a marker pen.

e- Collage the butterfly with tissue paper copying the patterns on your model as closely as possible.

3 – Claes Oldenburg

Claes Oldenburg (born in 1929) is a Swedish born American sculptor, best known for his public art installations typically featuring large replicas of everyday objects.

Dropped Cone (right) is a sculpture by Claes Oldenburg. It is Displayed on a shopping Centre building in Cologne Germany.

4 – Damian Hirst

Damian Hirst is a British artist (born in 1965). He is reported to be the UK richest living artist. He often uses butterflies as a theme in his work. To him butterflies symbolise death and resurrection.

5 - Symbolism

Symbol: a thing that represents or stands for something else, especially a material object representing something abstract.

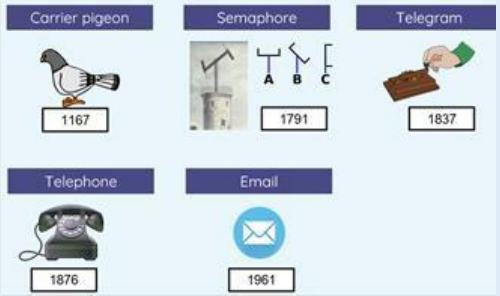
Butterflies symbolism: butterflies are deep and powerful representations of life. Many cultures associate the butterfly with our souls.

The Christian religion sees the butterfly as a symbol of resurrection. Around the world, people view the butterfly as representing endurance, change, hope, and life.

Computing	Networks	Year 9	Term 2

1: Protocols

LAN – Local area network
WAN – Wide area network
Network – Two or more computers connected together.
Historical methods of communications include:



2: Hardware

Router – A router forwards messages from one network to another. It acts as a gateway.

Network Cable – Connect different devices together.

Hub - A hub connects a number of computers together.

Server - A server is a powerful computer which provides services.

ISP – Internet service Provider.

Client – Any computer in a Network.

ISP – Internet service provider

3: Wired and wireless

Wired – Wired networks send data along cables.

Wireless - Wireless networks send data through the air using radio waves

Bandwidth - Bandwidth is the amount of data that can be moved from one point to another in a given time. Higher bandwidth = more data per second. The concept is similar to the volume of water flowing through a pipe. This depends on the size and thickness of the pipe.

1024 bytes = 1 Kilobyte (KB)

1024 KB = 1 Megabyte (MB)

1024 MB = 1 Gigabyte (GB)

4: Internet

What is the internet?
The internet is a worldwide network of computers.
It is the physical hardware, i.e. the cables, the routers, and other pieces of hardware used to connect devices together.
Any device connected to the internet is part of this network, for example:

Laptops
Games consoles
PCs
Tablets
Mobile phones

5: Internet services

The WWW and the internet are NOT the same thing..

Internet services include:

- WWW
- Online gaming
- VOIP
- Online streaming like Netflix
- Instant messaging
- Email

6: World wide web

The **World Wide Web** is a service provided on the internet. It is the websites, web pages, and links found on the internet.

- **Web browser** - is a piece of software (code) used to view information on the World Wide Web.
- **Web server** - is a server located on the internet that holds website web pages.
- **HTTP** - HTTP' stands for 'Hypertext Transfer Protocol'
- **HTTPS** - HTTPS' stands for 'Hypertext Transfer Protocol Secure'.
- **Webpage** - is a document that is accessible through the internet on a web browser.

Drama	Monologues	Year 9	Term 2

1: The Monologue

- A monologue is a long speech by a single character in a theatre production or film. Monologues can either be addressing other characters in the scene, or they can be one character talking to themselves or to the audience.
- The word *monologue* is made up of the Greek roots for *alone* and *speak*, and it is the counterpart of the word *dialogue*, which comes from the Greek word for *conversation*.
- Monologues serve a specific purpose in storytelling—to give the audience more details about a character or about the plot. Used carefully, they are a great way to share the internal thoughts or backstory of a character or to give more specific details about the plot.

2: NVC – Non Verbal Communication

body language: communication coming from movement, position or expression

facial expression: the appearance, mood or feeling conveyed by a person's face

posture: the position a character holds themselves in when sitting or standing

gesture: a movement made by part of the body (e.g. arms, head) to convey a character's emotions

gait: a person's manner of walking

3: The Director

- A director is responsible for the overall creative vision of the show.
- They have to bring the different elements of the production together to produce a cohesive final production, having meetings with the design team at various stages during a production.
- They will also direct the performers and help them develop their characters in **rehearsals** ahead of the final performance.
- **didactic purpose:** a purpose, meaning or message that the director has intended to teach an audience

4: Monologues: The Writing Process

- **dialogue:** a piece of speech
- **stage direction:** an instruction in the text of a play indicating the movement, position, or tone of an actor, or the sound effects and lighting
- **plot:** the main events of a play or film, devised and presented by the writer as an interrelated sequence
- **narrative:** a spoken or written account of connected events
- **intent:** a thing intended; a person's plan

5: Performance Skills

To ensure that you give an effective performance of a monologue, the skills and points below should be incorporated:

· **NVC—non verbal communication**

· **vocal Skills**

· **remain in character**

· **no back to the audience**

Oracy Focus

oracy: the ability to express oneself fluently and grammatically in speech

volume: ensure that your voice reaches everyone in the audience

clarity: ensure that you speaking clearly

pace: ensure that your pace of speech is appropriate to your character

Other Vocal Skills

- **pitch:** the degree of highness or lowness of the voice
- **tone:** a quality in the voice that expresses the speaker's feelings or thoughts
- **intonation:** the rise and fall of the voice in speaking
- **inflection:** changes in pitch or loudness of the voice

English	‘Of Mice and Men’ - John Steinbeck	Year 9	Term 2

1. Methods

- **register:** the way a speaker uses language differently in different circumstances, including level of formality - *A speaker’s register in a formal speech, will differ from that in an informal speech.*
- **formality:** strictly conventional behaviour - *Formal letters require a high level of formality*
- **tone:** the attitude of the writer towards a subject or audience, usually conveyed through the choice of words - *Letters typically avoid using a sarcastic tone.*
- **direct address:** where a writer communicates a message directly to an individual or group of individuals - *Letters directly address the reader.*
- **rhetorical question:** a question asked in order to create a dramatic effect or to make a point rather than to get an answer - ‘*Do you want to succeed in life?’ is an example of a rhetorical question.*

2. Vocabulary

- **faithfully (adverb):** in a loyal manner
- *e.g. If you do not know the name of the person, end a letter with ‘yours faithfully,’.*
- **sincerely (adverb):** in a kind or genuine way
- e.g. *If you know the name of the person, end the letter with ‘yours sincerely,’.*
- **appropriate (adjective):** suitable or proper in the circumstances
- *e.g. When writing letters, it’s important to select the appropriate tone.*
- **perspective (noun):** a particular attitude towards or way of regarding something; a point of view
- *e.g. When writing letters, it’s important to consider which perspective to write from.*
- **layout (noun):** the way in which parts of something are arranged
- e.g. *Formal letters have a conventional layout.*

3. Grammar – Paragraphing

A paragraph is a collection of sentences with unity of purpose.

A paragraph should:
- Introduce the paragraph's main point
- Develop and support the point
- Show the significance of the point made

How long should a paragraph be?
- There is no absolute rule: very short or long paragraphs can work when used by an experienced writer. However, as a guideline, paragraphs should usually be no less than two or three sentences long and there should be two or three paragraphs per page of A4.

When should I start a new paragraph?
- Start a new paragraph for each new point or stage in your writing. When you begin a paragraph you should always be aware of the main idea being expressed in that paragraph.

4. Grammar – Semi Colon

- Use a semi-colon **to link (in a single sentence) two independent clauses that are closely related in thought**. When a semicolon is used to join two or more ideas (parts) in a sentence, those ideas are then given equal position or rank.
- *e.g. Some people write with a word processor; others write with a pen or pencil.*
- Use a **semicolon between two independent clauses that are connected by conjunctive** adverbs or transitional phrases.
- *e.g. However they choose to write, people are allowed to make their own decisions; as a result, many people swear by their writing methods.*
- Use a **semicolon between items in a list or series if any of the items contain commas.**
- *e.g. There are basically two ways to write: with a pen or pencil, which is inexpensive and easily accessible; or by computer and printer, which is more expensive but quick and neat.*

English	'Of Mice and Men' - John Steinbeck	Year 9	Term 2

5. Letter Writing

A formal letter is an official letter that has a number of conventions about layout, language and tone that you should follow.

Addresses and date
- Begin with your address in the top-right corner of the page.
- Immediately, below this include the date.
- Below this, on the left hand side of the page, comes the name and address of the person that you are writing to - the recipient of the letter.

Beginning the letter
- Most formal letters will start with 'Dear' before the name of the person that you are writing to·
- If you don't know the name of the person you are writing to, use: 'Dear Sir/Madam,'
- Remember to add the comma after the name.
- Your opening sentence should clearly state why you are writing the letter - get to the point straight away: 'I would like to apply for the position of ...'

Ending a Letter
- **Yours faithfully:** if you do not know the name of the person
- **Yours sincerely:** if you know the name of the person
- **Your signature:** Sign your name, then print it underneath the signature

Opening
- This is where you address the person that you are writing a letter to. An informal letter may start with: *Dear Richard, / Hello Richard,*
- Be sure to never forget the comma after the name.
- You will then need an opening sentence: How are you? / How have you been? / How is life treating you?

Body
- The contents of your letter should be written in a personal and friendly tone. However, it's important to adjust your use of language to the person you are writing to. A good way of assessing how you should write is to think about how you would interact with the person you are writing to in real life.
- Subjects to include in the body: state your reason for writing / ask about the person you are writing to / invite the person to write back

Closing
- The closing is where you summarise your letter and say goodbye to the reader

6. Article Writing

Articles are detailed pieces of writing which explore a range of issues, opinions, experiences and ideas.

- The purpose of an article will very depending on the media it is meant for.
- Articles should appeal to the particular audience the newspaper/magazine is targeting. E.g. if a magazine was targeted to middle aged women, then the articles, adverts and pictures within that magazine would reflect their interests in lifestyle, career, money, health and relationships.

Top Tips for article writing:
- Ensure the article is led by factual information
- Use the 5 Ws to help formulate the article: who, what , when, why and how
- The lead is the first few sentences of a story. It needs to be strong so it will grab the readers' attention
- If it is hard news story, which is breaking news – use as many facts as you can in the summary of the story.

How to structure an article:
- Headline and subheading: highlights the main idea of the article and includes keywords
- Introduction: the first paragraph outlines the subject or theme of the article
- Details (the main body): the middle sections consists of a number of paragraphs that expand the main topic of the article.
- Use facts, statistics, opinions, quotes, and anecdotes to add validity to your article.
- Conclusion: your concluding statement should leave a lasting impression on your reader.

French | Celebrations | Year 9 | Term 2

Trinity Academy Sowerby Bridge

1: Celebrations in France

le Jour de l'An	New Year's Day	1 janvier
la fête des Rois	Epiphany	6 janvier
la Saint Valentin	Valentine's Day	14 février
le Pâques	Easter	mars/avril
le poisson d'avril	April Fool's day	1 avril
la fête du travail	Labour day/May day	1 mai
la fête des mères	Mother's Day	juin
la fête nationale	Bastille Day	14 juillet
la Toussaint	All Saints' Day	1 nov
la veille de Noël	Christmas Eve	24 déc
le Noël	Christmas	25 déc
la Saint-Sylvestre	New Year's Eve	31 déc

France has many national celebrations and shares some of these with the rest of the world e.g. Christmas, Easter, and Eid. However, France has its own twist on these celebrations and has its own national festivals such as Bastille Day and May Day. There are also many regional festivals.

2: Celebrations Vocabulary

le billet	ticket	s'amuser	to have fun
le cadeau	present	célébrer	to celebrate
le défilé	parade	chercher	to look for
le feu d'artifice	firework	se déguiser	to dress up
le jeu	game	dîner	to dine
le jouet	toy	donner	to give
le jour férié	bank holiday	fêter	to celebrate
le repas	meal	s'habiller	to dress
		ouvrir	to open
la blague	joke	recevoir	to receive
l'église	church	se réveiller	to wake up
la dinde	turkey		
la fête	celebration	chrétien	Christian
la messe	Mass	juif/juive	Jewish
la mosquée	mosque	musulman	Muslim
la réunion	meeting	religieux	religious
le veille	day before	religieuse	religious

3: Near Future Tense

To form the near future tense we use the verb **aller** plus an **infinitive verb**. For example:

je **vais** **utiliser** mon portable = I am going to use my phone
nous **allons** **tchatter** = we are going to chat
je ne **vais** pas **lire** un livre = I'm not going to read a book

We can also use a range of other structures to express the near future tense. These are also followed by an **infinitive verb**. For example:

j'espère (I hope to)
j'ai l'intention de (I intend to)
j'ai envie de (I want to)

e.g. j'espère **recevoir** un cadeau = I hope to get a present

We use **ce sera** (it will be) to give opinions in the near future.

4: Conditional Tense

We use the conditional tense to talk about what we **would like** or what **would happen** in the future.

je voudrais - I would like
j'aimerais - I would like
je préférerais - I would prefer

These are typically followed by an infinitive verb. For example:
Je voudrais recevoir un cadeau - I would like to get a present
Je préférerais fêter chez moi - I'd prefer to celebrate at home.

The conditional tense is formed by adding these endings to the future tense stem of the verb:

pronoun	ending
je	-ais
tu	-ais
il/elle/on	-ait

pronoun	ending
nous	-ions
vous	-iez
ils/elles	-aient

5: Perfect Tense (avoir and être)

We use the perfect tense to describe what has happened in the past. It is made up of three parts:

1. A pronoun or noun (e.g. je, nous, or a name)
2. The auxiliary verb (usually avoir, but sometimes être)
3. A past participle (e.g. regardé, fait)

Past participles

Verb ending	ER	IR	RE
Past participle ending	**é**	**i**	**u**

Some past participles are irregular, for example:

dire → dit (said)
écrire→ écrit (wrote)
faire → fait (did)
voir → vu (saw)

For verbs which take être the past participle must agree with the subject. For example:
elle est allé**e** – she went
nous sommes allé**s** - we went

6: Dates in French

janvier	January	lundi	Monday
février	February	mardi	Tuesday
mars	March	mercredi	Wednesday
avril	April	jeudi	Thursday
mai	May	vendredi	Friday
juin	June	samedi	Saturday
juillet	July	dimanche	Sunday
août	August	le weekend	the weekend
septembre	September		
octobre	October	le lundi	every Monday
novembre	November	le premier	the first
décembre	December	chaque année	every year

Remember: months and days of the week in French **do not** have capital letters. For example:
Mon anniversaire, c'est **le six mai**.
La Saint-Sylvestre, c'est **le trente-et-un décembre.**

Geography	Yorkshire's Energy Future	Year 9	Term 2

Trinity Academy Sowerby Bridge

1: Impacts of fossil fuels

- Fossil fuels: are energy resources formed from dead animals and plants, such as oil, coal and gas
- These are non-renewable energies and are finite (they will run out)
- Advantages of burning fossil fuels include: they can be burned at all times; jobs are created for people; power stations can be built anywhere in the world; they can be easily transported and stored.
- Disadvantages of burning fossil fuels: pollution is created; mining for the fuels are dangerous; they will run out; they cause breathing problems for living creatures; the sulphur dioxide released causes acid rain which harms trees and buildings.

2: Global energy use

- Consumption: the usage of resource
- We use energy for lots of things including transport, electricity, domestic use, industry, and agriculture.
- Only 4% of people in Chad have access to electricity.
- Over 99% of Chad's energy is currently provided by burning wood or fossil fuels.
- China has a higher total energy use than any other country, with the USA in second.
- China needs so much energy to power the many factories in the country, and to provide electricity for its massive population
- Over 70% of US energy comes from fossil fuels, especially coal and oil.

3: Energy in Yorkshire

- Energy mix: the different types of energy used in a country
- Deindustrialisation: the moving of industries abroad
- In 2017, non renewables accounted for 47.5% of the total UK energy.
- In 2017, renewables accounted for 29% of the total UK energy.
- In 2017, nuclear accounted for 21% of the total UK energy.
- The UK imports around 40% of its energy. In the UK we are expanding our technology to focus more on renewable energies.

4: Nuclear energy

- Nuclear energy uses uranium to power a thermal power plant.
- The uranium generates heat, which turns water into steam to turn the turbines and power the generator.
- Advantages include: they do not contribute to climate change as there are no greenhouse gas emissions; they can be used 24/7; they are very efficient; they can run for many years; they are well paid jobs.
- Disadvantages include: people do not like living there because of the risks; expensive to set up; waste is toxic.

5: Wind and solar energy

- Sustainable: preserving resources now so future generations can benefit as well
- A **wind turbine** is a device that converts kinetic **energy** into electrical **power**.
- Wind and solar energy are both types of sustainable, renewable energy.
- Advantages of wind energy include: better technology so more energy is created; jobs created; no pollution.
- Disadvantages include: falling house prices; noisy; disruption of habitats.
- 598 million people in Africa have no access to electricity. Solar lamps are safe, clean and affordable and helping stop this.

6: Energy reduction

- Efficient: achieving maximum productivity with minimum wasted effort or expense
- **Energy efficiency** – using as little energy as possible and reducing energy waste.
- 10% of heat is lost through single glazed windows.
- 25% of heat is lost through an uninsulated roof.
- Methods of energy reduction: loft insulation; double glazed windows; take shorter showers; smart meters; turning off electrical equipment; draught-proofing.
- Britain's first solar powered bus– number 52 bus in Brighton has solar panels on roof.

History	Second World War	Year 9	Term 2

1	2	3
• Alan Turing is now famous for being the British mathematician who created modern computing and played a crucial part in the Allied victory over Nazi Germany in WW2. • He invented the idea of a universal machine that could decode and perform any set of instructions. • He joined the governments code-breaking department **Key Dates** **1936 –** he invented the idea of a universal machine **1938 –** he joined the governments code-breaking department **Language of the Lesson:** Enigma – a person or thing that is difficult to understand Crucial – extremely important	• The Polish passed on important information to the British government about the Enigma machine which the Germans were using to encode all its military and naval signals. • Turing and other mathematicians working at Bletchley Park developed a new machine capable of breaking Enigma messages. **Key Dates:** **September 1939 –** Turing develops the machine capable of breaking enigma messages **1950 –** He produced a philosophical paper with the idea of an 'imitation game' – that machines could copy human minds. **Language of the Lesson:** Imitation – a thing intended to simulate or copy something else Encode – to convert something into a coded form	• Codenamed Operation Overlord, the battle of Normandy began on June 6, 1944, (also known as D-Day) • 156,000 American, British and Canadian forces landed on five beaches along a 50-mile stretch of the heavily fortified coast of France's Normandy region. • The invasion was one of the largest land and water based military assaults in history. • Less than a week later, on June 11, the beaches were fully secured and over 326,000 troops, more than 50,000 vehicles and some 100,000 tons of equipment had landed at Normandy. **Key Dates:** **6 June-1944 -** Operation Overlord begins(D-Day) **August 1944 –** by the end of August France had been liberated **Language of the Lesson:** Allies – a group of people or countries which join together as a team Liberated – set free

4

- The Battle of Berlin was the last major battle in Europe during WW2. it resulted in the surrender of the German army and an end to Hitler's rule.
- The battle was fought between the German army and Soviet army. The Germans were vastly outnumbered. The Soviets had over 2,500,000 soldiers, 7,500 aircraft and 6,250 tanks. The Germans were ill-equipped for battle and had around 1,000,000 men, 2,200 aircraft and 1,500 tanks.
- The Soviets surrounded and entered the city. By 30 April the Germans were running out of ammunition. At this point Hitler admitted defeat and committed suicide along with his new wife Eva Braun.

Key Dates:
16 April 1945- 2 May 1945 – The Battle of Berlin
7 May 1945 – the remaining leaders of Nazi Germany signed an unconditional surrender to the allies and the war in Europe was over.

Language of the Lesson:
Allies – a group of people or countries which join together as a team
Soviet army – The Russian army
Surrender – to give in to an opponent

5

- To this day there has only been two nuclear weapon attacks in war. Both of these were launched by the USA against Japan in 1945.
- The bomb dropped on Hiroshima on 6 August devastated an area of 5 square miles, destroying more than 60%of the city's buildings and killing around 140,000 people. The second bomb, dropped on Nagasaki 3 days later, killed around 74,000 people.
- The USA dropped the bombs for 3 main reasons; to force an immediate end to war, for revenge on the attack on Pearl Harbour and to send a message to the USSR about US superiority.

Key Dates:
6 August 1945 – America dropped an Atomic bomb on the Japanese city of Hiroshima
9 August 1945 – America dropped a second bomb on the Japanese city of Nagasaki
14 August 1945 – Japan surrendered unconditionally to the Allies.

Language of the Lesson:
Nuclear weapon – a weapon, usually a bomb or a missile
Atomic – power that is produced from the energy released by splitting atoms

6

- Anti-Semitism has existed to some degree wherever Jews have settled outside Palestine.
- Judaism and Christianity became rivals soon after Jesus was crucified
- Jews were increasingly forced to the margins of European Society and 9ver the centuries have been subjected to Religious, Economic, social and political discrimination.
- Legal discrimination was also introduced in Hitler's Germany.
- As part of this legal discrimination Jews were forced to live in ghettoes in Poland and other areas of Nazi occupied Europe.
- Ghettoes were a temporary measure used to hold Jews until their deportation to concentration camps.

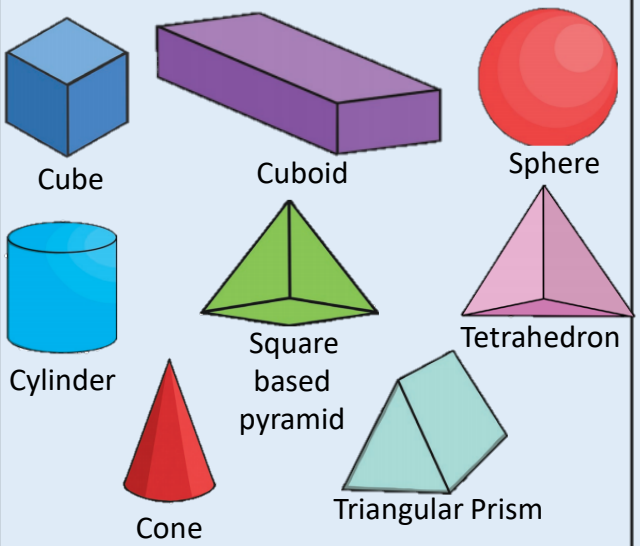
Key Dates:
321AD – Christianity becomes the official religion of the Roman Empire making Jews second class
1930's - Hitler made anti –Semitism part of the laws of Germany

Language of the Lesson:
Jewish – a religion that does not believe that Jesus was the Messiah
Ghetto – forced housing, usually guarded by soldiers
Anti-Semitism – fear or hatred of Jews

1. Cube Numbers

$1^3 = 1$	$7^3 = 343$
$2^3 = 8$	$8^3 = 512$
$3^3 = 27$	$9^3 = 729$
$4^3 = 64$	$10^3 = 1000$
$5^3 = 125$	$11^3 = 1331$
$6^3 = 216$	$12^3 = 1728$

2. 3D Shapes



3. Geometric Language

Faces - the flat surfaces on a solid 3D shape.

Vertex - a corner where two or more line segments meet. A vertex can be on a 2D or 3D shape.
The plural of a vertex is **vertices**

Edge - a line segment that joins two vertices together

Prism - a 3D shape that has identical end faces, flat faces and the same cross section all along its length
e.g. a cube is a prism, but a tetrahedron is not

The **cross section** of a prism is the shape revealed by a straight cut through it
e.g. the cross section on a cube is a square

Polygons - 2D shapes made up only of straight sides

Plan view - the view of an object from above it **Side**

elevation - looking at an object from a side **Front**

elevation - looking at an object from the front

4. Volume and Surface Area

Volume - the amount of space that a 3 dimensional object takes up
To find the **volume** of a **prism** you multiply the area of the **cross section** by the depth

Volume is measured in **cubic** units e.g. cm^3

Surface area - the total area of all faces of a 3 dimensional shape.

Surface area is measured in square units e.g. m^2

Net - a pattern made up of polygons that you can cut and fold to make a model of a solid shape.

A net can be used to calculate the surface area of a 3D shape.

5. Congruency

Congruent - shapes that are exactly the same size. They have equal sides and angles but may have a different orientation.

We mostly look at congruent triangles.
To prove that two triangles are congruent you must use one of the four reasons:

SSS (Side Side Side) – All the sides are the same size.

ASA (Angle Side Angle) – An angle, a side, and another angle are the same size

SAS (Side Angle Side) – A side, an angle and another side are the same size

RHS (Right angle Hypotenuse Side) – There is a right angle and the hypotenuse and another side are the same size.

6. Constructions

Locus - a path of points that follow a rule
e.g. are a set distance from a point

Loci - the plural of locus

Equidistant - points are the same distance from a point

Bisecting - an angle or a line is to cut it into two equal parts

Perpendicular – lines that intersect at a right angle

Some examples of constructions are:
- An angle bisector
- A perpendicular bisector
- Perpendicular line from a point
- Constructing different types of triangles

Music	Keyboard Skills	Year 9	Term 2

1: Pitch

Musical elements: The different ingredients used in music.

Pitch: The rising or ascending tones in music

Traditional notation: A form of writing music down allowing performers to easily read the pitch and duration of notes.

Stave: the five lines of music which represent the pitch of notes.

Treble Clef: A musical symbol showing the second line of the stave is the G above Middle C

2: The Keyboard

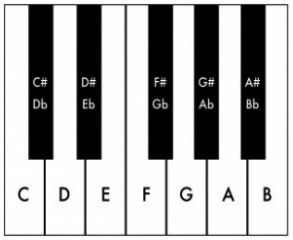
Harpsichord: The early version of the piano. The strings were plucked instead of hit with hammers like in the modern day piano.

Keyboard Layout: There are five different black notes or keys on a piano or keyboard. They occur in groups of two and three right up the keyboard in different pitches.

Octave: The name given when notes are 8 apart

Bar: A bar is a way of organising written music in small sections. Each bar is a small amount of time. Each bar usually has the same number of beats in it.

Finding C: C is to the left of the two black keys.



3: Keyboard Performance 1

Dotted note: When a note is followed by a dot half the original note value is added on again.

Articulation: This is the interested added to a note. The note could be detached or smooth.

Staccato: When a note is played with a short and bouncy articulation.

Legato: When a note as a smooth articulation

Triplet: A 'triplet' is a group of three notes played in the time of two. It is shown on the score with a three over or under the notes.

4: Keyboard Performance 2

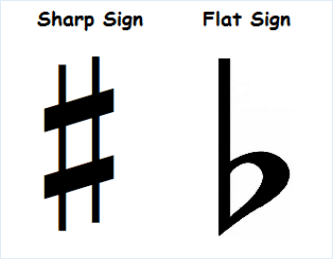
Dexterity: the ability to use your hands skilfully. This helps create a fluent performance to the music.

Semitone: an interval of half a step. Usually a white note to a black note.

Tone: an interval of a step. E.g. C to D or F# to G#

Sharp: A note is raised by a semitone.

Flat: When a note is lowered by a semitone.



Music	Keyboard Skills	Year 9	Term 2

5: Bass Notation

Bass Clef: a symbol placed on the fourth line of a stave to indicate that the fourth line corresponds to the F next below middle C.

Major: When a piece of music has a bright, happy feel to it.

Minor: When a piece of music has a dark, sad feel.

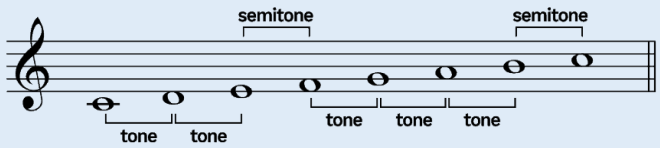
Chords: When notes are played at the same time. These are usually major or minor.

Triad: When three notes are used to for a chord.

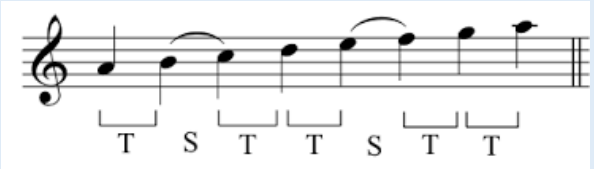
Scale: a set of notes in order of their pitch.

6: Performance Skills

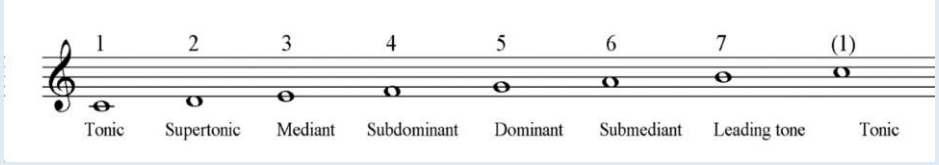
Major Scale: The major scale is created by using the following formula: T T ST T T T ST (T=tone, ST=semitone)



Minor Scale: The major scale is created by using the following formula: T ST T T ST T T (T=tone, ST=semitone)



Degrees of the scale: The word scale comes from the Latin for ladder and each run of the ladder has its own name known as a degree. Each of these degrees have their own name. They are:



PE | Handball (Big Test 2-6) | Year 9 | Term 2

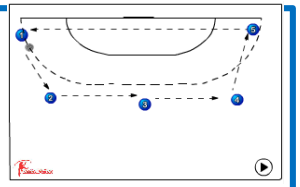
Component 1: Dribbling

Components of fitness needed to be effective in dribbling:
- Co-ordination
- Agility

When refereeing the dribble use these hand signals. Rules that can be infringed are travelling and illegal (double) dribble.

Key Vocabulary:
- Free Throw – awarded by the referee for slight infringements of the rules. Players must remain 3m away when being taken.

Component 2: Passing & Receiving



Components of fitness needed to be effective in passing and receiving:
- Co-ordination
- Power

When designing an effective passing drill use this link as a knowledge base: https://www.sportplan.net/s/Handball/handball-passing-drills.jsp

Key Vocabulary:
- Throw off – to begin a game of handball the team in possession take a throw-off, a pass to a teammate in the centre of the court.

Component 3: Shoo

Components of fitness needed to be effective in shooting:
- Power
- Co-ordination
- Speed

When designing an effective shooting drill use this link as a knowledge base: https://www.sportplan.net/s/Handball/handball-drills-shooting.jsp

Key Vocabulary:
- 7 metre (penalty) line – when a clear goal scoring opportunity is stopped by a foul, a penalty is rewarded. The player takes it at the 7m line.

Component 4: Defending

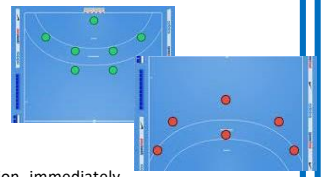
Components of fitness needed to be effective in defending:
- Balance
- Muscular strength

When refereeing defending use these hand signals. Rules that can be infringed are hitting and restraining/holding.

Key Vocabulary:
- 9m line (free throw line in attacking zone) – when a foul is made the attacking team will take the resulting three throw behind this line while in the attacking zone.

Component 5: Phase of Play – Organised Defence

Components of fitness needed to be effective in an organised defence:
- Aerobic Endurance
- Speed

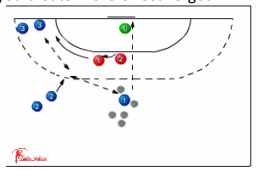


When analysing organised defences compare the effectiveness of the 5-1, 4-2 and 3-3 formations.

Key Vocabulary:
- Track back - when you lose possession, immediately and with urgency track back into your designated defensive organised formation.

Component 6: Phase of Play – Organised Attack

A numerical overload is creating an attacking advantage by overloading the defence with more numbers. By doing this you create more effective goal scoring opportunities.



Passing combinations can also be used to overcome an opponent and break down an Organised defence. Look at the image as an example.

Key Vocabulary:
- Feinting - body movement used to fake out a defender, this will generate space enabling you to have a goal scoring opportunity.

Component 7: Phase of Play – Fast Break

Components of fitness needed to be effective in the fast break during handball:
- Speed
- Power
- Co-ordination

When analysing fast breaks, analyse these details: do the team complete the fast break with under 3 passes?, is movement direct and into open space?, how could you improve a team's fast break?

Key Vocabulary:
- Open space – space which is unmarked from opponents, during a fast break you should always directly attack by running and receiving into open space.

PE	Dance (Big Test 2-6)	Year 9	Term 2

Component 1: Dance warm up, choreography and rhythm

3 stages of a dance warm include:

1. Isolations – mobilises the joints
2. Aerobic – pulse raiser. O2 to muscles
3. Flexibility – stretching – avoid pulled muscle

Choreography is the sequence of steps and movements in dance.
Rhythm in music is a sense of timing. Dance music is counted in sets of 8 beats

Component 2: Unison

Unison is when dancers use the same movement at the same time. Factors affecting its success include: rhythm, timing, choreography, confidence.

This is a powerful choreographic device because it creates an engaging effect for the audience, it's aesthetically pleasing and makes the dance look neat.

Component 3: Dance style

Genre	Characteristics	History
Ballet	Posture, toe pointing, and correct body positions, lines, and angles are all important.	The history of ballet begins around 1500 in Italy. Terms like "ballet" and "ball" stem from the Italian word "ballare," which means "to dance."
Hip hop	Dance features include locking (freezing from a fast movement and "locking" in a certain position, holding that position for a short while and then continuing in the same speed as before) and popping (quickly contracting and relaxing muscles to cause a jerk in the body).	Hip-hop dance began during the late 1960's and early 1970's, originally inspired by the movements of African dancing, and flourished as a new style of dance performed on the street for the people.
Street	Street dance is an umbrella term used to describe dance styles that were originally danced mostly at night clubs or outside in the streets, mainly because of their social nature that encourages performance and "battles". The dances are often performed with soft knees, low, sharp and exaggerated moves.	Street dance originated in New York in the 1970s. Evolving on the streets of Manhattan and the Bronx, it was developed as an improvised, social dance form, reacting against traditional, high-art dance styles.
Contemporary	Strong but controlled legwork of ballet, fall and recovery, and improvisation characteristics of modern dance. Unpredictable changes in rhythm, speed, and direction are often used,	It all began at the start of the 20th century, when American dancer Isadora Duncan (1878-1927) left the school of ballet in favour of developing a more fluid method of dancing.
Tap	Uses the sounds of tap shoes striking the floor as a form of percussion. The sound is made by shoes that have a metal "tap" on the heel and toe.	Tap dance originated in the United States in the early 19th century at the crossroads of African and Irish American dance forms. When slave owners took away traditional African percussion instruments, slaves turned to percussive dancing to express themselves and retain their cultural identities.

Component 4: Formations

Formation means shape. Are you in a line, circle, square? Are there any changes to the formation throughout the dance? Factors affecting its success include: rhythm, timing, choreography, confidence.

This is a powerful choreographic device because it creates an engaging effect for the audience, it's aesthetically pleasing and maintains the interest as the dancers move around each other.

Component 5: Levels

Levels refer to whether the dancer is performing high (leaps, jumps), middle and low moves (floor work). Factors affecting its success include: flexibility, timing, choreography, confidence, power.

This is a powerful choreographic device because it creates an engaging effect for the audience, adding leaps and jumps along with floor work makes it aesthetically pleasing.

Component 6: Canon

A movement canon occurs when dancers perform the same phrase one after the other. Factors affecting its success include: rhythm, timing, choreography, confidence. This is a powerful choreographic device because it makes the dance look more complex without the choreography appearing chaotic.

Component 7 and 8: Own choreography, performance and appreciation

Actions:
Jump –feet leave the floor
Gesture – movement to express emotions
Turn - rotation
Travel – move from one place to another
Stillness – stationary
Isolation – one body part

Choreographic devices	Performance skill
Unison Canon Formation Levels	Confidence Focus Audience

RS	Buddhism	Year 9	Term 2

1 – Wesak

Buddhists in different areas of the world might celebrate their own **festivals**, but one festival that all Buddhists celebrate is **Wesak**.
Wesak is held on the day of the **full moon** in the month of Wesak, which is in May or June in Britain.
It is a festival to remember 3 important events in the life of the Buddha: his **birth**, his **Enlightenment** and his **death**.
At Wesak, people visit **temples** and **monasteries** and show their respect to the Buddha by pouring scented water over the **Buddharupa**. People give each other cards and presents. At night, the Buddharupa is taken out of the temple and people light **candles** and carry **lanterns** around it. This surrounds the Buddha in light to represent how he taught people how to become Enlightened.

2 – The 5 Precepts

The 5 Precepts are a set of rules that **Lay Buddhists** live by to try and ensure that they are on the right path and are being the best people they can be.
The 5 Precepts are:

1. I will avoid taking life.
2. I will avoid taking what is not given.
3. I will avoid harmful sexual activity.
4. I will avoid saying what is not true.
5. I will avoid drinking alcohol and taking harmful drugs.

All of the Precepts start with '**I will avoid**' because negative actions are discouraged and positive actions encouraged.
Many Buddhists are **vegetarian** because of the Precepts, and many remain in committed relationships due to Precept 3. Precept 5 ensures Buddhists can see the real world around them.

3 – The life of a monk

Buddhists believe greatly in friendship and they call the Buddhist community the '**Sangha**'.
For some Buddhists, the Sangha is the community of monks and nuns. These are people who have dedicated their life to trying to reach enlightenment. They live a very strict life and follow **227 disciplines**.
The life of a monk could varies depending on each **monastery**, but they spend the main part of their day meditating, chanting or teaching others to meditate. They focus their worship on paying respect to Siddattha for starting the way of life. They also have a duty to travel the country and share the teachings of the Buddha with other people.

4 – Theravada vs Mahayana

There are two main denominations of Buddhism: **Theravada** and **Mahayana**. Neither are seen as superior to the other, they are just different ways of following the same path.
The Mahayana tradition makes up the majority of the world's Buddhists, and there are varying forms of it, such as **Zen Buddhism**. There are not many monks in the Mahayanan tradition, but they highly value the sacred texts called the **Pali Canon**. They place great value on **Bodhisattvas**, who are people who have reached enlightenment but remain on earth to guide others.
Theravada Buddhism follows the original teachings of the Buddha, laid out in the Pali Canon. Theravada Buddhists live a simple life; many prioritise meditation over everything else and many choose to become monks or nuns. The monks and nuns wear **orange robes** because they were once the cheapest.

5 – Life and Death

Buddhists believe in **samsara**: the cycle of birth, death and rebirth. At the end of a life, a person is reborn into one of six **realms**. The number of times a person can be reborn is endless. Where they go depends on their moral choices and the **karma** they have built up.
There are some heavenly realms, and some hellish realms. However pleasant the realm, Buddhists still see this as **dukkha** (suffering) and are unsatisfactory.
Their ultimate aim is to reach a state of perfect peace, known as **Nirvana**. They can only do this by reaching **Enlightenment**.
Buddhists believe that Siddattha reached Enlightenment but then stayed on earth to help teach and spread the message of Buddhism. Buddhists celebrate his death on **Nirvana Day** (in February). On this day they often gather at monasteries, eat together and share gifts.

6 - Summary

- Buddhism was started by Siddattha Gotama; a prince who lived in Lumbini (modern day Nepal). His father protected him from seeing any suffering.
- Siddattha escaped the palace and saw the four sights: old age, illness, death and a holy man.
- Siddattha searched for an escape from suffering and settled on the Middle Way.
- The Four Noble Truths of Buddhism are: suffering exists, suffering is caused by greed and craving, suffering can be stopped, follow the Middle Way and the 8 fold path.
- The 8 fold path is a set of 6 rules which Buddhists must follow to lead a good life.
- Buddhists believe that energy is reborn many times, and there are 6 realms it can be reborn into.
- There are two main traditions in Buddhism: Theravada and Mahayana.

RS	Buddhism	Year 9	Term 1

Key Word	Definition	Example Sentence
Enlightenment	Having the spiritual knowledge and awareness that frees you from a state of suffering and allows you to escape life on earth.	Siddhartha reached Enlightenment when he started living the Middle Way.
Dharma	The teachings of the Buddha.	The Buddha taught for about 50 years and his dharmas are still followed now.
Nirvana	The state of perfect peace when one reaches Enlightenment.	Buddhists believe that the soul can escape reincarnation and reach Nirvana once it is Enlightened.
Buddharupa	The Sanskrit name for a statue of the Buddha.	Buddhist shrines often include a Buddharupa.
Monasteries	A building or complex of buildings which house monks or nuns (men or women who dedicate their life to a religion).	Buddhist monks live in monasteries and dedicate their life to trying to reach Enlightenment.
Lay Buddhist	Someone who practices Buddhism but is not a monk or a nun.	Lay Buddhists live their lives by the 5 Precepts.
Sangha	The Buddhist community.	Buddhists value friendship and are all part of the global Sangha.
Monastery	The home of a community of monks or nuns.	Theravada Buddhist monks live together in a monastery.
Samsara	The cycle of birth, death and rebirth.	Buddhists believe in samsara; the idea that energy is reborn into another living thing.
The 6 Realms	The 6 realms that people can inhabit during the cycle of samsara.	Some realms are hellish and some are heavenly. All realms all include suffering and are unsatisfactory.
Karma	Actions that are the result of the choices people make.	The realm someone is reborn into is dependent on ones karma.

Textiles	Planning and Designing	Year 9	Term 2

1- Material Management

In the design industry it is important to consider the environmental impact products may have. There are numerous processes designers and manufacturers go through to ensure they are having as little impact on the environment as possible.

Key terms you will need to learn are:

1. **Nesting –** a process that limits the amount of waste materials by closely grouping shapes together.
2. **Tessellation –** tessellation means to rotate shapes to allow them to fit together as closely as possible, meaning less wasted materials.
3. **Sustainable –** a resource that is able to be maintained at a steady rate without running out. Sustainable materials include paper, bamboo and recycled plastic.
4. **Biodegradable –** something that is capable of being decomposed by bacteria or other living organisms, resulting in less pollution.

2- Fabric Construction

Before textiles are made, the **fibres** must be spun into yarns which can then be **constructed** into fabric.

There are **three main types of fabric construction** which are:

1. **Woven** – woven fabric is made on a loom and is made up of a **warp** and a **weft**. The weft passes under and over the warp to produce a strong and hardwearing fabric.
2. **Knitted** – knitted fabrics are made by interlocking yarns together, this can be done either by hand or on a machine. Knitted fabrics are quite stretchy. Knitted fabrics are either weft knitted or warp knitted.
3. **Bonded** – bonded or non woven fabrics are made by laying fibres over each other and rubbing them together to make them bond (stick) together. Pressure and moisture and needed to bond the fibres together. Bonded fibres do not fray.

3- Making Processes

During the making process of the project you will construct a 3 dimensional product in response to the design brief and specification. You will use a variety of techniques as well as using computer aided design (CAD) to enhance your product.

Key processes are:

1. **Laser cutting** – a manufacturing process which uses a laser to cut out components efficiently, neatly and accurately.
2. **Digital machine embroidery** – a CAD process which uses digital imagery to translate motifs onto fabric using a digital sewing machine.
3. **Hand Embroidery –** a technique used to add decoration to fabric by adding different stitches to make patterns.
4. **Applique -** a textiles technique where pieces of fabric are sewn on to a larger piece of fabric to form a picture or pattern.

Science	Respiration, Blood, Waves and Electricity	Year 9	Term 2

1: Aerobic Respiration

respiration	the chemical process that releases energy for life processes
aerobic	a process that involves oxygen
glucose	a simple sugar that can be made from larger carbohydrates
mitochondria	a subcellular structure where aerobic respiration takes place

Aerobic Respiration Word Equation

glucose + oxygen —> carbon dioxide + water

2: Anaerobic Respiration

anaerobic	a process that does not involve oxygen
cytoplasm	the jelly like substance that fills the cell, where anaerobic respiration takes place
lactic acid	a waste product that is produced from anaerobic respiration
breathing rate	how many breaths are taken per minute
waste product	any substances that are produced in a reaction that are not the desired product

Anaerobic Respiration (in animals) Word Equation

glucose —> lactic acid

3: The Blood

heart	an organ which pumps blood around the body
artery	a blood vessel which carries blood away from the heart
vein	A blood vessel which carries blood toward the heart
capillary	small blood vessels which carry blood close to all cells
red blood cell	a cell within blood that transports oxygen to cells and takes away carbon dioxide
white blood cell	a cell within blood which protects your body from infection

4: Waves

wave	the transfer of energy without the transport of particles
longitudinal wave	the direction of the wave is parallel to the vibrations causing the wave
vibrations	the back and forth movement of an object or a particle
medium	a state of matter which sound can travel through
transverse wave	a wave where the direction of vibrations are 90° to the direction of the wave
vacuum	a volume of space where there is no matter (particles)

5: Electrical Circuits

circuit	a complete loop which allows an electric current flow
series	a circuit with one loop through which current flows
current	the rate of flow of charge
ammeter	a device which measures the current in a circuit
potential difference	a measure of the difference in energy between two parts of a circuit
voltmeter	a device which measures potential difference

6: Resistance

component	parts of a circuit e.g. cell, bulb, switch...
resistance	how much the wires and components reduce the flow of charge (current)
ohms (Ω)	the unit of measure for resistance

resistance (Ω) = potential difference (V) ÷ current (A)

variable	a factor which could affect experimental results