



Knowledge Organisers

Year 7

Spring Term B

Name:

Tutor Group:

Respect

Ambition

Resilience

Huish Episcopi Academy Year 7 English Knowledge Organiser – Oliver Twist

Key Terminology	
1	allegory A story that contains a moral or lesson for its reader.
2	antagonist The main character that goes against the protagonist (often a villain).
3	protagonist The main character that the story follows.
4	Implicit characterisation When a writer creates a fictional character and subtly reveals details that we can infer about the character.
5	Explicit characterisation When a writer creates a fictional character and tells us explicit and obvious details e.g. appearance, age, occupation.
6	Narrative structure The structure of the story from beginning to end.
7	exposition The opening of a story in which the writer establishes character and setting.
8	climax The peak moment of tension in a story when the protagonist is faced with a problem.
9	resolution The end of the story when all of the problems are overcome and there are no questions left to be answered.
10	juxtaposition The placement of two ideas, characters, settings, etc. to compare and contrast the two.
11	Narrative perspective The point of view that the story is being told from.
12	dialect A way of speaking and pronunciation that is specific to a region or area.
13	tension The feeling of uncertainty or anxiety due to moments and events in a story.
14	foreshadowing When a writer provides hints as to what will happen later in the story.
15	Cliff-hanger The end of a scene, chapter or story where the events are not resolved and we are left with unanswered questions.
16	Word class A category to sort words in to their different types e.g. adjectives, verbs, nouns and adverbs.
17	Writer's methods The language and structural techniques that a writer might use in their writing e.g. metaphor, repetition, characterisation.
18	embedded quotation A quotation that is introduced and placed in to an analytical paragraph by explaining who said it and when it was said.
19	analytical paragraph A paragraph that analyses a text by explaining what a writer is showing us, how they choose to show us this and why they show us this in that way.

Key Vocabulary	
1	poverty The state of being extremely poor, living without the sufficient resources to live a happy and healthy life.
2	corrupt Using your power for personal gain, often at the detriment/harm of others.
3	vulnerable Being exposed to the possibility of being attacked or harmed either physically or emotionally.
4	naïve Showing a lack of experience, wisdom or judgement.
5	malicious Behaviour that intentionally causes harm to someone or something else.
6	moral Behaviour that is considered good and noble.
7	immoral Behaviour that is considered wicked and evil.
8	merciless Shows no mercy, does not show concern for the effect their actions have on others.
9	exploitation The act of treating someone unfairly in order to benefit themselves.
10	villainous Showing behaviour that is associated with a villain: evil, wicked, cruel.
11	unhygienic Describes somewhere that is lacking the cleanliness we would expect in order to live a healthy life.
12	empathy The ability to understand and share the feelings of someone else.
13	orphan A child whose parents are no longer living.

Key Context	
1	Victorian Era A period of time in British history when Queen Victoria was on the throne (1837 – 1901).
2	The Poor Law A law passes by the British government in 1834 that placed poor people who could not afford to live in to workhouses.
3	Workhouse A place the poor were sent to complete work in return for a bed and a meal.
4	antisemitism Discrimination or hatred towards Jewish people.
5	transportation A punishment in which criminals convicted of a crime were sent to other countries within the British colony to work instead of going to prison or be executed.
6	Debtor's prison A prison specifically for people who owed money or couldn't pay their bills.
7	Pick-pocket A person (usually a child) who steals by taking things from people's pockets.
8	Overpopulation When a place has too many people living in it because the number of people exceeds the amount of resources available e.g. food, houses, water, etc.



Times Tables up to 12 x 12 must be learnt

Perimeter		
1) Perimeter	The total distance around the outside of a closed shape. 8 cm 5 cm  Perimeter = 5 + 8 + 5 + 8 = 26 cm	2) Polygon
		A 2D shape which has 3 or more straight sides.
		3) Regular Polygon
		A polygon where all sides are equal length, and all angles are of equal size.
		4) Irregular Polygon
A polygon where all sides are not equal and/or all angles are not equal.		
5) Units of Length		
1 cm = 10mm; 1 m = 100 cm; 1 km = 1000 m		

Mean		
1) Average	A number expressing the central or typical value in a set of data.	2) Mean
		The sum of the numbers divided by how many numbers are being averaged. E.g. Calculate the mean of 14, 6, 18, 2, 3. 1) Add the values: 14 + 6 + 18 + 2 + 3 = 43 2) Divide by 5 3) Mean is $\frac{43}{5} = 8.6$
3) Reversing the Mean	If we have the mean but one of the data points is missing, we can find the missing value by: 1) Multiplying the 'mean' by the number of data points to get the total of the values. 2) Subtracting the sum of the known values from the total of all values.	E.g. The mean of three numbers is 5. Two of the numbers are 3 and 10. Find the third value. Total of the values: 5 x 3 = 15 15 - (3 + 10) = 2 The third value is 2

Area

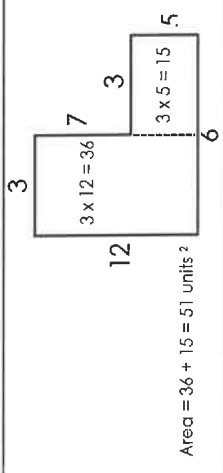
A measure of the space inside a 2D shape. Area is measured in square units. E.g. square centimetres (cm²), square metres (m²).



Area = base x height

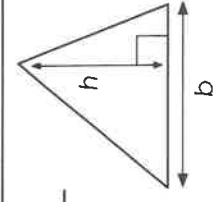


Area = length x width



Split into regular shapes
Find the area of each
Sum the areas

5) Compound Area

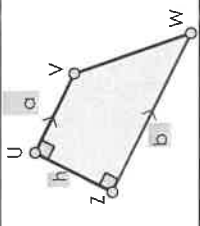


Area = $\frac{\text{base} \times \text{height}}{2}$

4) Area of Triangle

1 cm² = 100 mm²; 1 m² = 10,000 cm²

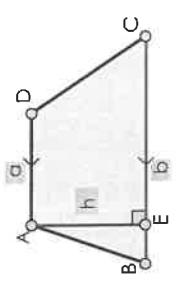
6) Units of Area



Sum of the parallel sides.
Divide by 2.
Multiply by the vertical height.

$$A = \left(\frac{a+b}{2} \right) \times h$$

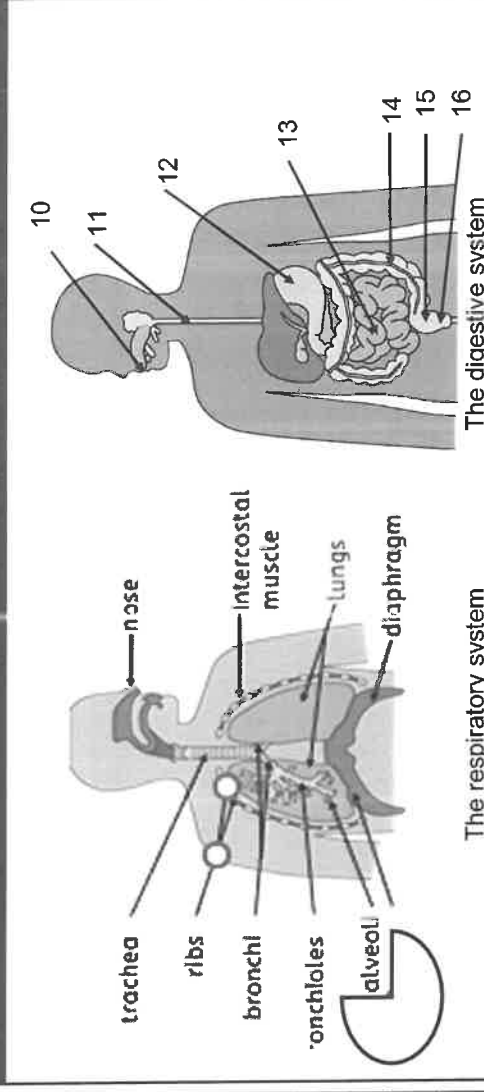
7) Area of Trapezium



Huish Episcopi Academy Year 7 Science Knowledge Organiser 7.05 Organ Systems

Unit 1 Keywords – Organisms	
1	unicellular An organism made of only one cell (e.g. bacteria, amoeba and yeast)
2	multicellular An organism made of many cells (e.g. plants and humans)
Unit 2 Keywords – Respiratory system	
3	intercostal muscle Muscles in-between the ribs
4	Ribs Protect the lungs
5	trachea The windpipe; an airway reinforced by rings of cartilage
6	lung The organ where gas exchange takes place
7	Bronchi An airway from the trachea – one to each lung
8	Bronchioles Many small airways branching off each bronchi to alveoli
9	Diaphragm A sheet of muscle that controls breathing
10	alveoli Tiny air sacs where gas exchange occurs
Unit 3 Keywords – Digestive system	
10	mouth Mechanical digestion by chewing
11	oesophagus Muscular tubing where peristalsis takes place, connecting the mouth to the stomach
12	stomach Mechanical digestion by churning
13	small intestine Large insoluble molecules are broken down into small soluble molecules
14	large intestine Absorbs water from waste back into the bloodstream
15	rectum Where faeces are stored
16	anus Faeces are excreted from the body

Unit 4 - respiratory and digestive systems



Unit 5 - Circulatory system

The heart	A pump that pushes blood to the body and back, to the lungs and back
Blood	The body's transport medium – made of 4 parts, plasma, platelets, red blood cells and white blood cells.
Plasma	Carries substances around the body, all blood cells and nutrients
Red blood cells	Carries oxygen, has no nucleus
White blood cells	Helps defend against pathogens (microorganisms that cause disease)
Platelets	Involved in blood clotting
Arteries	Carry blood at high pressure away from the heart
Veins	Carry blood at low pressure back to the heart
Capillaries	Covers organs and tissues to allow exchange of substances with blood e.g. O ₂

Judaism

Key Vocabulary

1	Abraham	The founder of Judaism and husband of Sara.
2	Covenant	An agreement between two sides (between humans and God).
3	Sara	Female leader, mother of nations and wife of Abraham.
4	Isaac	The son of Abraham and Sara.
5	Moses	Leader who freed the Israelites from slavery and was given the 10 commandments.
6	Miriam	Prophetess who helped her brother Moses lead the Israelites out of slavery.
7	Exodus	A book in the Bible which tells the story of the Israelites being freed from slavery.
8	Ten Commandments	Ten rules given to Moses by God about how humans should behave.
9	Esther	A Jewish queen who saved her people from a plot to destroy them.
10	Monotheism	The belief that there is only one God.
11	Shema	An important prayer, declaring the oneness of God.
12	Messiah	A future Jewish king who is expected to bring peace.
13	Genesis	A book in the Bible which describes the creation of the world.
14	Mitzvot	613 rules in the Torah which guide Jews in their behaviour.
15	Tikkun Olam	"Repairing the world", encouraging actions that improve society and bring justice.
16	Synagogue	A Jewish place of worship, study and community.
17	Bar/Bat Mitzvah	Coming of age ceremony (Bar Mitzvah for boys and Bat Mitzvah for girls).
18	Pesach/Passover	A Jewish holiday which commemorates the Exodus story.
19	Shabbat	A day of rest and worship observed from Friday evening to Saturday evening.
20	Orthodox	A branch of Judaism that follows traditional beliefs, laws and practices.
21	Progressive	A branch of Judaism that adapts traditional beliefs, laws and practices to fit modern life.
22	Prophecy	A message given to humans from God, usually to a prophet.

The founder of Judaism and husband of Sara.

An agreement between two sides (between humans and God).

Female leader, mother of nations and wife of Abraham.

The son of Abraham and Sara.

Leader who freed the Israelites from slavery and was given the 10 commandments.

Prophetess who helped her brother Moses lead the Israelites out of slavery.

A book in the Bible which tells the story of the Israelites being freed from slavery.

Ten rules given to Moses by God about how humans should behave.

A Jewish queen who saved her people from a plot to destroy them.

The belief that there is only one God.

An important prayer, declaring the oneness of God.

A future Jewish king who is expected to bring peace.

A book in the Bible which describes the creation of the world.

613 rules in the Torah which guide Jews in their behaviour.

"Repairing the world", encouraging actions that improve society and bring justice.

A Jewish place of worship, study and community.

Coming of age ceremony (Bar Mitzvah for boys and Bat Mitzvah for girls).

A Jewish holiday which commemorates the Exodus story.

A day of rest and worship observed from Friday evening to Saturday evening.

A branch of Judaism that follows traditional beliefs, laws and practices.

A branch of Judaism that adapts traditional beliefs, laws and practices to fit modern life.

A message given to humans from God, usually to a prophet.

Holy Books introduced

The Tanakh

Hebrew Bible, which includes three parts: the Torah, Nev'im and Ketuvim.

The Torah

Holiest scripture for Judaism. The word means "law" in Hebrew. Written by Moses. Also important in Christianity and Islam.

Nev'im

Contains books of the Prophets, which tell the history of Israel God's messages through the prophets.

Ketuvim

Contains various writings, including poetry, wisdom literature and historical accounts.

Talmud

Contains discussions and interpretations of the Torah, which guides Jewish law and practice.

Tools for Studying Religion

Theology is the study of God and ideas about God. Theologians look at how ideas about God influence beliefs in religions and the actions people will do.

Social Scientists use evidence to see how people are influenced by society.

Social Scientists look at patterns in what people believe about God and how this may change due to time and place.

Huish Episcopi Academy Year 7 History Knowledge Organiser – Medieval Monarchs

Key Terms	
1	Henry II King of England from 1154
2	Eleanor of Aquitaine Queen of England and wife of Henry II
3	John I An unpopular king who ruled England from 1199
4	Richard II King of England during the Peasants' Revolt
5	Wat Tyler The leader of the Peasants' Revolt
6	Revolt A violent attack against authority
7	Rebellion An organised challenge to authority
8	Monarch A queen or king
9	High treason A crime against the monarch
10	Miasma The belief in a bad smell which caused disease
11	Male primogeniture The first-born male child who inherits everything from his parents
12	Challenge To threaten someone's position or authority

Key Dates	
13	1154 Henry II crowned
14	1170 Murder of Thomas Beckett
15	1215 Magna Carta
16	1348 Black Death arrive in England
17	1381 Peasants' Revolt

Huish Episcopi Academy Year 7 Geography Knowledge Organiser Unit 2 Topic World of Work

1. Employment sectors	
1	Employment When people are in work, receiving a wage and paying tax.
2	Unemployment When people are not in work, therefore do not receive a wage and do not pay tax.
3	Primary industries Industries which collect or extract natural resources from the environment, such as farming or fishing.
4	Secondary industries Industries which manufacture goods into products, such as builders, car manufacturers or food processing
5	Tertiary industries Industries that provide a service, such as teachers and doctors
6	Quaternary industries Industries that involve using technology, design and research

2. Influences on employment structures	
1	Industrialisation A move from primary employment to secondary employment, with a rise in manufacturing.
2	Mechanisation When machinery begins to do the jobs which once required humans.
3	Disposable income The money a person has left to spend after they have paid all their bills.
4	Public services A service that is given or funded for the benefit of the community.

3. Location of Industry	
1	Site The actual place where a settlement first grew up. This refers mainly to its physical setting.
2	Situation The location of a place relative to other features nearby.
3	Footloose Industries which are not tied to a specific location and can operate from anywhere.
4	Raw materials Natural resources that are used to make other things.
5	Labour Workers, employed people.
6	Market A place where things are bought and sold.
4. Trade	
1	Trade The exchange of goods and materials between countries.
2	Import Goods brought into a country.
3	Export Sending goods to another country for sale.
4	Trade bloc An arrangement in which participant countries lower trade barriers with one another.
5	Tariff A tax imposed on goods when they are imported or exported between countries.

Connectives		
1	y	and
2	o	or
3	Porque	because
4	Pero	but
5	Aunque	although

Mi Colegio		
1	Mi colegio	My school
2	Mi instituto	My school
3	La escuela	School (primary)
4	Se llama	Is called

Spelling and phonics rules		
1	CaRoLiNa	The only consonants which can be doubled
2	PH	In Spanish is always F
3	C (before and –e or –i)	Sound like “th” in English
4	G (before an –e or –i)	Sound like “j” in jueves

¿Qué instalaciones tiene tu colegio? : What facilities does your school have?		
1	El patio	Playground
2	El aula. (fem.)	Classroom
3	La piscina	Swimming pool
4	El gimnasio	Gym
5	La biblioteca	Library
6	Los laboratorios de ciencia	Science labs
7	La cantina	Canteen
8	El estudio	studio
9	Las canchas de tenis	Tennis courts
10	El campo de fútbol	Football pitch
11	Los terrenos	Fields/grounds
12	La recepción	reception
13	El despacho	(private) Office/study
14	La oficina	Office
15	El centro	centre
16	El pasillo	corridor
18	El auditorio	Main hall

¿Te gusta ?		
1	Me gusta (mucho)	I (really) like
2	Me gustan	I like (plural things)
3	Me encanta (n)	I love
4	Me chifla (n)	I am keen on
5	Detesto/odio	I hate

Mis actividades extra extraescolares :My after school clubs

1	Soy miembro del club de...	I am a member of the. ... club
2	Estoy en el equipo de....	I am in theteam
3	El coro	The choir
4	El orquesta	The orchestra

Mis actividades

1	Practico	I practise
2	Juego a	I play (sport)
3	Toco	I play (a musical instrument)
4	Participo en	I participate in

Mis asignaturas : My subjects		
1	El español	Spanish
2	El inglés	English
3	Las matemáticas	Maths
4	Las ciencias	Science
5	La informática	IT
6	La tecnología	DT
7	El dibujo /el arte Los idiomas	Art
8	La geografía	Geography
9	La historia	History
10	El Teatro / el arte dramático	Drama
11	La música	Music
12	La educación física	P.E.
13	La religión	R.E.
14	La tutoría	Tutor group/tutor time
15	El recreo	Break
16	El almuerzo	Lunch
17	El horario escolar	School timetable
18	Los idiomas	Languages

4.1.1 Où habites tu? - Where do you live?	
J'habite dans...	I live in...
Une petite/grande maison	A small/big house
Une maison individuelle	A detached house
Une maison jumelée	A semi-detached house
Un appartement	An apartment
...est situé(e)/...se trouve	...is situated/...is located
Dans le nord/le sud/l'est/l'ouest de l'Angleterre	In the north/south/east/west of England
À la campagne	In the countryside
À la montagne	In the mountains
Au bord de la mer	By the seaside
Dans une (grande) ville	In a town/city
Dans un village	In a village
Près d'un aéroport/d'un centre commercial	Near an airport/shopping centre
J'aime habiter ici	I like living here
On peut (+l'infinitive)	You can
Il y a...	There is/are...
Beaucoup de choses à faire	Lots of things to do
Opportunités pour les jeunes	Opportunities for young people
Un bon système de transport en commun/transports publics	A good public transport system
J'aime la tranquillité	I like the peacefulness

4.1.2 Décris ta maison - Describe your house	
Ma maison est... Mon appartement est...	My house is... My apartment is...
Il y a... (+ un/une or number)	There is/are...
Il n'y a pas de (+item)	There isn't/aren't...
Un salon	A living room
Un balcon	A balcony
Un garage	A garage
Un jardin	A garden
Un bureau	A study/office
Une cuisine	A kitchen
Une buanderie	A utility room
Une salle de bains	A bathroom
Une salle à manger	A dining room
Une chambre Deux chambres	A bedroom Two bedrooms
La chambre de mes parents/ ma sœur	My parent's/sister's bedroom

4.2 Décris ta chambre - Describe your bedroom	
Il y a... (+ un/une or number)	There is/are...
Il n'y a pas de (+item)	There isn't/aren't...
Un lit	A bed
Un bureau	A desk
Un poster	A poster
Un ordinateur	A computer
Une chaise	A chair
Une armoire	A wardrobe
Une étagère	A bookshelf
Des lits superposés	Bunk beds
Sous	Under
Sur	On top of
Entre	Between
Devant	In front of
Dernière	Behind
À côté du/de la/des	Next to



Huish Episcopi Academy

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4.3.1 Décris ta ville ou ton village - Describe your town or village	
Qu'est-ce qu'il y a dans ta ville ?	What is there in your town?
Il y a... (+ un/une or number)	There is/are...
Il n'y a pas de (+item)	There isn't/aren't...
Beaucoup de	Lots of
Un centre commercial	A shopping centre
Un centre de loisirs	A leisure centre
Un parc	A park
Un cinéma	A cinema
Un restaurant (Italien/ chinois)	A (Italian/Chinese) restaurant
Un café	A café
Un parc d'attractions	A theme park
Un théâtre	A theatre
Un bowling	A bowling alley
Un château	A castle
Un musée	A museum
Une piscine	A swimming pool
Une patinoire	An ice rink
Une bibliothèque	A library

4.3.2 Qu'est-ce qu'on peut faire dans ta ville? - What can you do in your town?	
On peut (+infinitive)	You can
On ne peut pas (+infinitive)	You can't
Aller au cinéma	Go to the cinema
Aller à la plage	Go to the beach
Aller au bowling	Go to the bowling alley
Jouer au parc	Play in the park
Manger au restaurant	Eat at a restaurant
Visiter le musée/le château	Visit the museum/the castle
Voir un spectacle	See a show
Faire des promenades	Go for walks
Faire du shopping	Go shopping

4.4.1 Tu aimes habiter ici? Pourquoi/pourquoi pas? - Do you like living here? Why (not)?	
J'aime habiter ici	I like living here
Je n'aime pas habiter ici	I don't like living here
Beaucoup de choses à faire	Lots of things to do
Beaucoup d'emplois	Lots of jobs
Beaucoup d'opportunités pour les jeunes	Lots of opportunities for young people
Beaucoup d'espaces verts	Lots of green space
Trop de pollution	Too much pollution

4.4.2 Où vas-tu habiter plus tard? - Where are you going to live later?	
À l'avenir	In the future
Je vais habiter	I'm going to live
Je voudrais habiter	I would like to live
Je veux habiter	I want to live
À (+city name)	In
À la campagne	In the countryside
À la montagne	In the mountains
Au bord de la mer	By the sea
Dans une grande ville	In a city
À l'étranger	Abroad
En France/en Espagne/en Allemagne/en Australie	In France/in Spain/in Germany/in Australia
Au Portugal/au Maroc	In Portugal/in Morocco
Aux États-Unis/aux Caraïbes	In the USA/in the Caribbean
J'aime le soleil	I like the sun
J'adore la culture	I love the culture
J'aime la nourriture	I like the food
J'aime faire du ski	I like skiing
C'est plus intéressant que...	It's more interesting than...



Connectives		
1	und	and
2	oder	or
3	denn / weil	because
4	aber	but
5	auch	also

Meine Schule – My school		
1	meine Schule	my school
2	der Lehrer / die Lehrerin	the teacher
3	der Student / die Studentin	the student
4	Er/Sie heißt...	He/She is called

Spellings and phonics rules		
1	ß	"ss" e.g. Ich heiße...
2	ei	"i" e.g. zwei, drei
3	ie	"ee" e.g. vier, sieben
4	w	"v" e.g. Auf Wiedersehen!

Was gibt es in deiner Schule? - What is there at your school?		
1	der Schulhof	playground
2	der Klassenzimmer	classroom
3	das Schwimmbad	swimming pool
4	die Turnhalle	gym
5	die Bibliothek	library
6	die Labore	science labs
7	die Kantine	canteen
8	das Tanzstudio	dance studio
9	die Tennisplätze	tennis courts
10	der Fußballplatz	football pitch
11	das Spielfeld	playing field
12	der Empfang	reception
13	das Büro	(private) office/study
14	der Arbeitsraum	office
15	das Sportzentrum	centre
16	der Flur	corridor
18	die Aula	main hall

Lernst du gern Mathe? - Do you like learning maths?		
1	Ich lerne gern...	I like learning...
2	Ich lerne nicht gern...	I don't like learning...
3	Ich liebe	I love
4	Ich hasse	I hate
5	Ich mag	I like

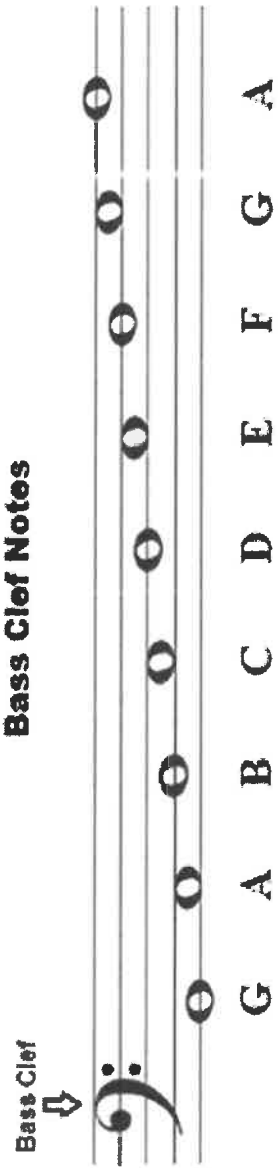
Nach der Schule – After school		
1	Ich bin Mitglied des ...vereins	I am a member of the. ... club
2	Ich spiele im ...mannschaft	I play for theteam
3	der Chor	The choir
4	das Orchester	The orchestra

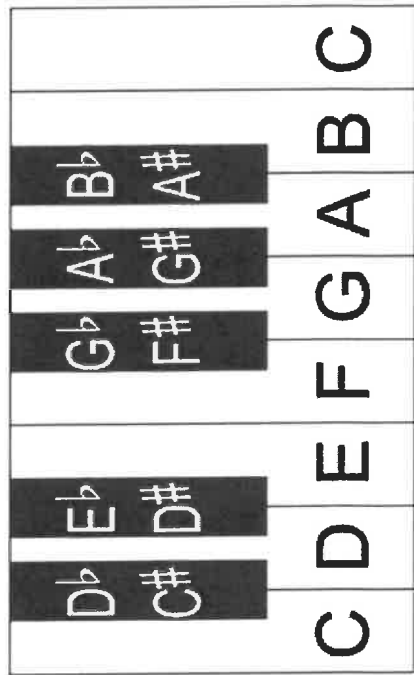
Was machst du in der Pause? - What do you do at break?		
1	Ich übe...	I practise
2	Ich spiele...	I play
3	Ich mache...	I do
4	Ich esse / trinke...	I eat / drink

Meine Schulfächer - My school subjects			
1	Deutsch	German	
2	Englisch	English	
3	Mathe	maths	
4	Naturwissenschaften	science	
5	Informatik	IT	
6	Werken / Technik	DT	
7	Kunst	art	
8	Erdkunde	geography	
9	Geschichte	history	
10	Theater	drama	
11	Musik	music	
12	Sport	PE	
13	Religion	RE	
14	Französisch	French	
15	Spanisch	Spanish	
16	die Pause	break	
17	die Mittagspause	lunch	
18	mein Stundenplan	my timetable	

Huish Episcopi Academy Year 7 Music Knowledge Organiser Unit 3 Pitch and Melody

Section 1	
1	Pitch How high or the notes are
2	Scale Pitches moving by step
3	Melody The tune
4	Accompaniment Musical background
5	Stepwise movement Moving to an adjacent note
6	Octave Interval between notes, 8
7	Ostinato Repeated pattern
8	Pedal Sustained note
9	Musical score Notation of combined instruments / voices
Section 2	
Bass Clef lines	 G B D F A  George Buys Doughnuts From Asda  A C E G  All Cows Eat Grass

Section 3	
Bass Clef notation	Bass Clef ↓  Bass Clef Notes

Section 4	
Keyboard letter names	 Bass Clef Symbol 

Huish Episcopi Academy Year 7 Drama Knowledge Organiser UNIT 2: Mime

UNIT 2: Mime		
Section A		
1	Miming	Use only movement to act out a play or role, no voice
2	Clarity	To move with purpose so we make our point clearly
3	Exaggeration	Making something seem larger than life
4	Slow Motion	Reduce speed of movement to bring everything into focus
5	Mirroring	Take it in turns with a partner to become their reflection through copying movement
6	Puppetry	Manipulating the movements of a partner by taking the lead
7	Tension State	Exploring the dynamic of a character through different body tensions
8	Tension Arch	Points in a performance that keep an audience hooked to the story of your play
9	Characterisation	An actor considers their voice, movement, body language and mannerisms of a role
10	Rehearsal	The practice and preparation of a performance by actors
Section B		
1	Projection	How loud or quiet your voice is
2	Pitch	How high or low your voice is
3	Pace	The speed at which an actor delivers their lines or performs their actions
4	Emphasis	The stress or importance placed on certain words or phrases in dialogue
5	Tone	The emotion shown in your voice
6	Gesture	Movements of the hands, arms, or body that express ideas or emotions
7	Eye Contact	Looking directly into another character's eyes, or avoiding this
8	Facial Expression	Movements of the facial muscles to convey emotions and reactions
9	Posture	The way an actor holds and positions their body
10	Body Language	The non-verbal communication conveyed through an actor's movements

Huish Episcopi Academy Year 7 D&T – Product Design Knowledge Organiser

1. CAD/CAM	
1	CAD Computer-Aided Design. CAD is the use of computers to create 2D and 3D designs.
2	CAM Computer Aided Manufacture. CAM . This is the use of machines (controlled by computers) to manufacture products.
3	Techsoft 2D Design Techsoft 2D design is a CAD programme.
4	Co2 Laser Cutter A LASER cutter cuts using light. It's power source is electric. It can speed up production and cut very accurately.
5	LASER LASER stands for (Light amplification of simulated emitted radiation).
6	PC We use a PC to do CAD work. We can save / edit and share our work with others more easily.

2. Tools, Materials and Processes

1	Pillar Drill Used with a drill bit in the chuck to drill holes in wood, metal & plastic.
2	Bench Vice Used to securely clamp work together when gluing, cutting, clamping or drilling.
3	Belt Sander Used to give a clean finish and straight edge on wood
4	PVA Polyvinyl Acetate (PVA) is used to glue wooden parts together
5	Plywood Plywood is a man-made, manufactured wood. Layers of thin wood is glued together to make sheet material.
6	Former A former is a shape in which we laminate our wood around to get a desired shape.
7	Laminate / Lamination Lamination is the process of bending thin parts together and holding them in the desired shape until the glue between them dries.



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3. Design Process		
1	Design Brief	A design brief outlines the requirements of a design project.
2	Design Specification	A design specification is a list of criteria your product must have to meet the needs of the user .
3	Mood Board	An arrangement of images , intended to evoke a particular style or concept .
4	Design / Initial Ideas	Realisation of a concept or idea into a drawing or model.
5	Final Design	A final design is a detailed drawing that gives all key details for manufacture (using ACCESSFM to explain).
6	ACCESS FM	Makes you think about products in a critical and analytical way. It stands for aesthetics, consumer, cost, environment, size, safety, function and materials.
7	Icons / Iconic Design	If you describe something or someone as an icon, you mean that they are important as a symbol of a particular thing (famous designs, buildings or people for example).
8	Evaluation	Reviewing the project or product and considering ways to improve it.

Diagram A - Former

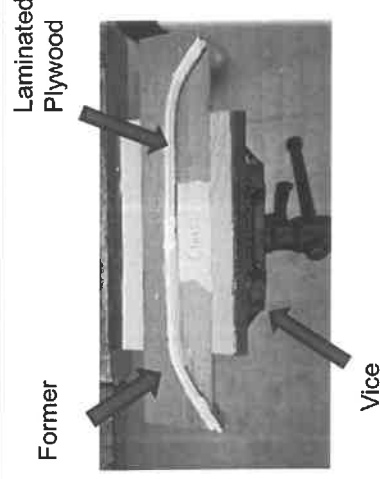
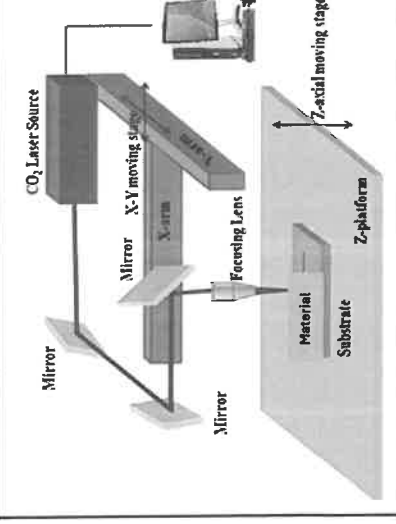


Diagram B - Co2 Laser Cutter



Huish Episcopi Academy Year 7 Computing Knowledge Organiser – Spring 2

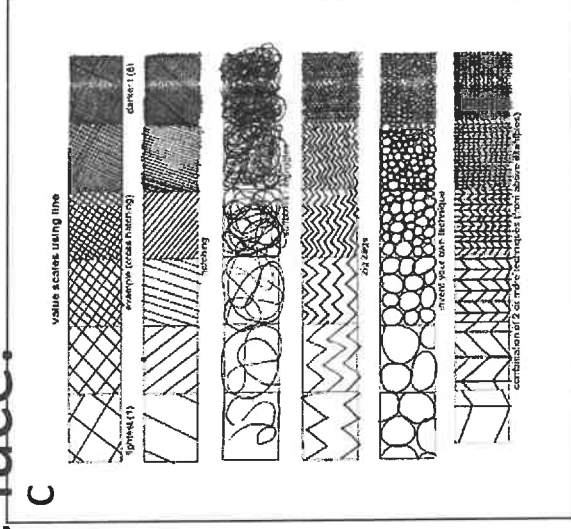
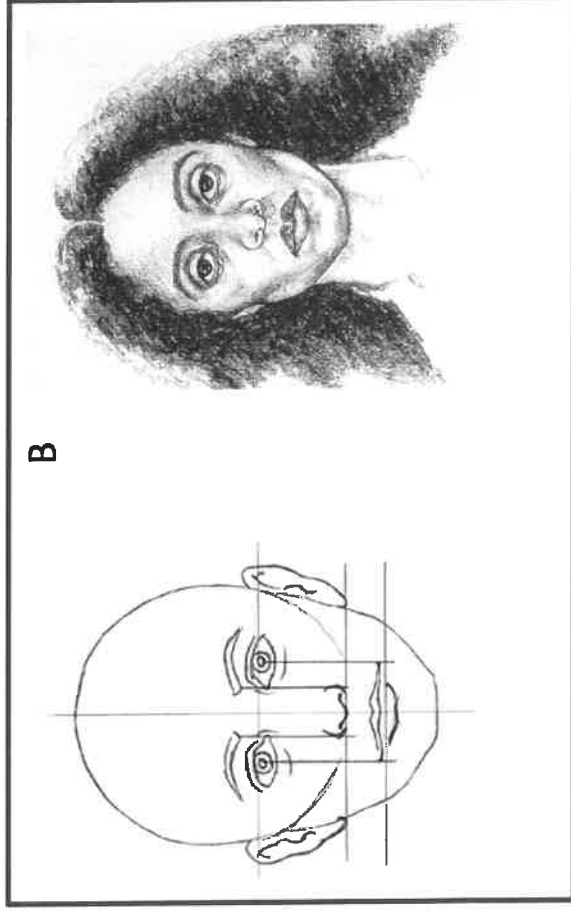
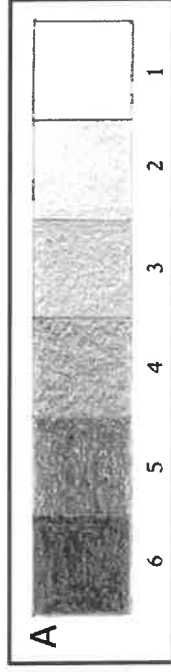
1 Hardware	
1	Ethernet A type of cable that connects computers to a network for fast data transfer.
2	Modem A device that connects your home to the internet.
3	Firewall A security system that protects your computer from harmful data.
4	Switch A device that connects multiple computers in a network and directs data to the correct destination.
5	Gateway A device that connects different networks so they can communicate.
6	Router A device that directs data between different networks, like your home network and the internet.
7	Server A powerful computer that provides data or services to other computers on a network.

2 Protocols	
1	FTP (File Transfer Protocol) A set of rules for transferring files over the internet.
2	SMTP (Simple Mail Transfer Protocol) A set of rules for sending emails.
3	POP3 (Post Office Protocol) A set of rules for receiving emails.
4	IMAP (Internet Message Access Protocol) A set of rules for accessing and managing emails on a server.
5	VPN (Virtual Private Network) A service that creates a secure connection to a private network over the internet.
6	DHCP (Dynamic Host Configuration Protocol) A set of rules that automatically assigns IP addresses to devices on a network.

3 Networks	
1	LAN (Local Area Network) A network that connects computers within a small area, like a home or school.
2	WAN (Wide Area Network) A network that connects computers over large distances, like between cities or countries.
3	Packet A small piece of data sent over a network.
4	Ping A test to see if a computer can communicate with another computer on a network.
5	Port A virtual door through which data enters or leaves a computer.
6	MAC Address A unique identifier for a device on a network.
7	SSID (Service Set Identifier) The name of a Wi-Fi network.

4 The Internet	
8	Bandwidth The amount of data that can be sent over a network in a certain amount of time.
9	Latency The delay before data starts to move after being sent.
10	Traceroute A tool that shows the path data takes to reach a destination on a network.
11	Subnet A smaller network within a larger network.
12	Topology The layout or structure of a network.
13	Node Any device connected to a network.
14	Client A computer or device that uses services provided by a server.

Portraits and Proportions of the face.



Home learning tasks - HOMEWORK

1. Practice shading with a pencil by copying the shading bar A, use different pencils and make your shading as smooth and even as possible. Practice this 3 times.
 2. Use the proportion guide to help you to draw a face and add shading in the style of the example B.
 3. Practice shading by using the examples in the shading grid C
- Please do these exercises on paper and bring to your art lesson

Key words

- Proportion** – The relationship between height, width and depth.
- Shade** – Shading is the darkening or colouring of a drawing with lines or blocks of colour.
- Texture** – concerns the surface quality of a piece of work.