Launceston College
Part of the Athena Learning Trust

Year 7

Subject knowledge organiser

Name	
Year	
Tutor	

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Maths

Sparx Maths

What exactly is Sparx Maths Homework?

Sparx homework is tailored to you, and should be just at the right level of challenge, based on the topics that your teacher has set.

Homework contains 3 elements: Compulsory, XP Boost and Target.

All questions in the Compulsory section must be answered correctly for the homework to be marked as complete. You may watch the videos on how to answer the questions to support you to 100% complete the work.

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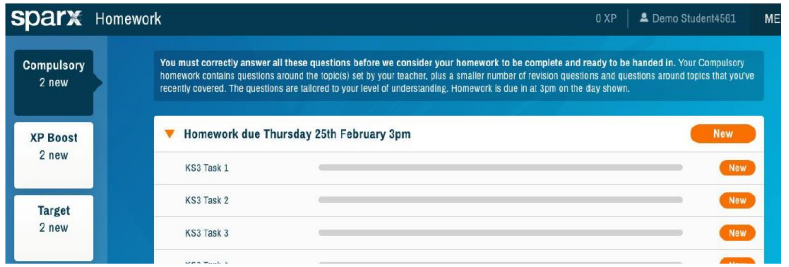

XP Boost questions are at a similar level to Compulsory, and offer extra practice.

Target questions have been designed to challenge you. You will receive a link to a video in your parent email each week, to help you offer them support and encouragement with their Target homework.

Get into good habits for completing homework

Try and set up a quiet work area to do your homework. If you don't have the space, consider setting aside routine 'quiet times' during the day, so you can concentrate, even if only for short periods of time.

Getting logged in to Sparx

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Bookwork Checks.

We believe that a good standard of bookwork is very important in helping you to embed good practice, and to help you and your teachers to keep track of any misconceptions.

In Sparx, every question is accompanied by a 'bookwork code'.

You should write this down, and then write your workings and answer next to the code.

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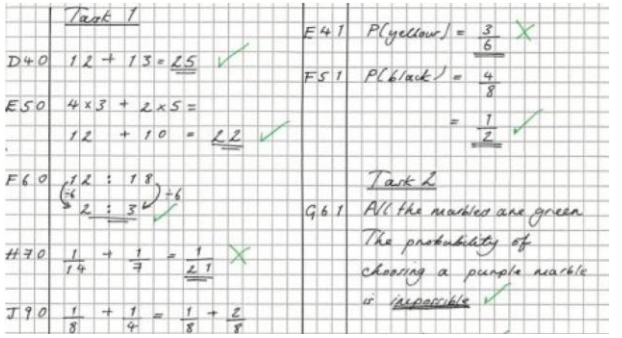
Here's an example of good bookwork; as you can see all workings and wrong answers have been recorded:



If you fail a bookwork check in Sparx, you will need to re-do the question, even if they originally gave the correct answer. This is to encourage you to record your workings.

The more bookwork checks you gets correct, the fewer they'll see. So, if you fail bookwork checks you will need to keep repeating question and then your homework will take you longer.

Timetables is part of your compulsory homework.

The times tables task is an additional task that is part of your compulsory homework.

The first time that this is in homework, there will be an initial diagnostic assessment that will ask a series of tables, until you get enough wrong that the system will stop and give you a club.

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Once you complete your initial assessment, you will be shown target tables that you need to practice. You will also see tasks that are available, which will ask you a variety of questions designed to teach and practise these targets, whilst also mixing in some short, engaging games. Once students practise enough, they will then be given a new assessment, where they have the opportunity to move up in their 100 club and generate new targets to practice.

How to use a knowledge organiser for homework

Knowledge organisers contain critical knowledge you must know.

Using your knowledge organiser will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long-term.

You will use your knowledge book for all of your homework except Maths.

Getting started

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In the instructions on Class Charts you will be asked to look at a specific section (e.g. A or D) or sections of your knowledge organiser.

Just like in lessons, you need start by writing the title (subject and section of knowledge organiser) and the date. Make sure you underline it too.

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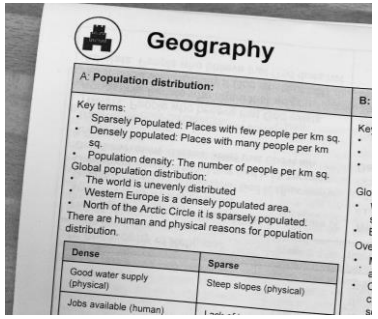	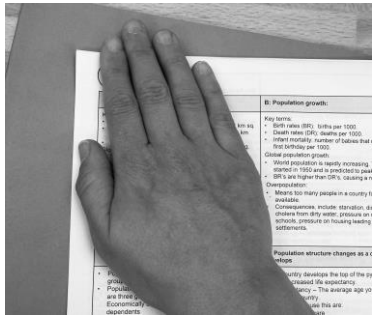	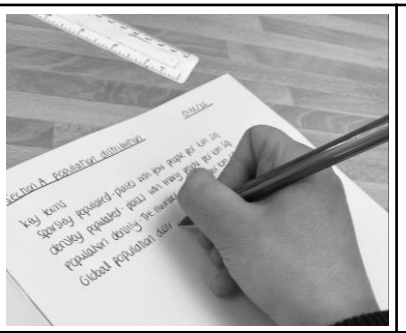	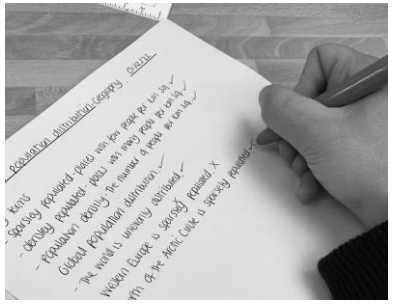	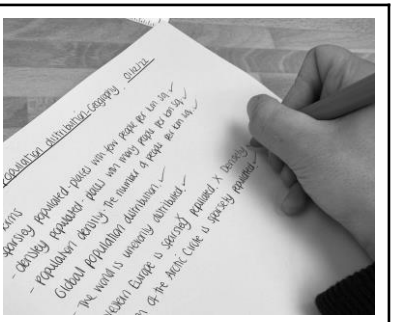
1. Read a section of your knowledge organiser several times.	2. Cover it so you can no longer see it.	3. Write out what you've remembered.	4. Check the knowledge organiser to see if you're right.	5. Correct any mistakes in ideally in a different coloured pen. Repeat this process two more times - even if you got 100% correct.

Why do we use a knowledge organiser?

Knowledge organisers contain critical knowledge you must know.

Why do we keep revisiting knowledge so often?

Know more: the more students know, the more they learn.

Remember more: the more (and better) we recap, the more we remember.

Succeed more: if we remember more, we succeed more in subjects and life.

Over a century of research has found what the mind struggles with in learning: distraction, overload and forgetting. A knowledge organiser can help us to reduce overloads as the material is chunked in to section but also by revisiting knowledge over time we reduce forgetting.

There are three main parts in how the mind learns.

Attention
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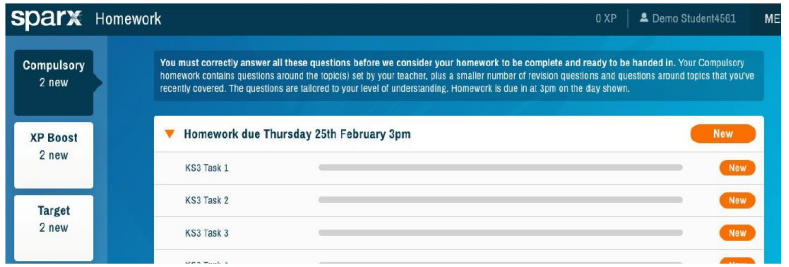

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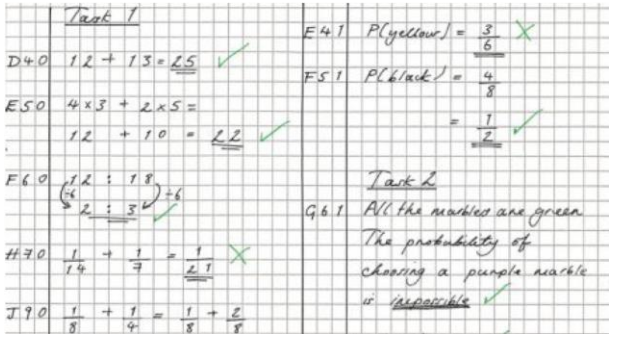

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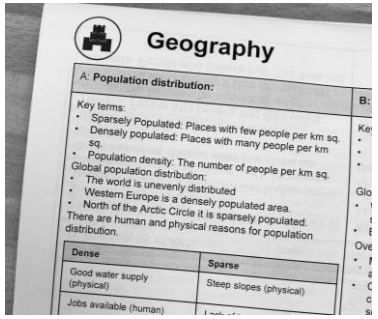	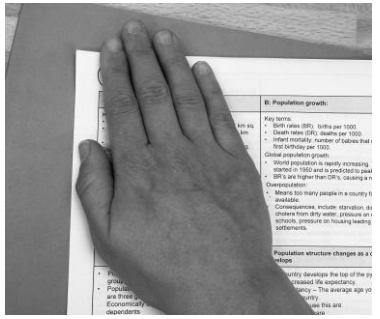	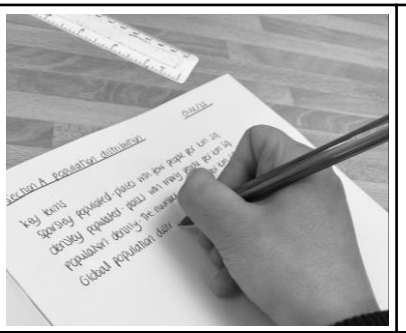	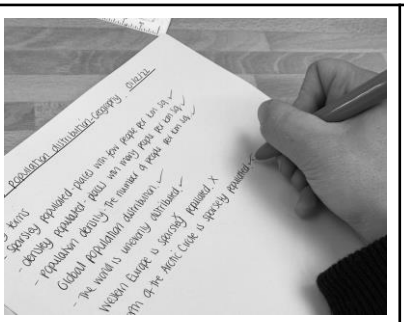	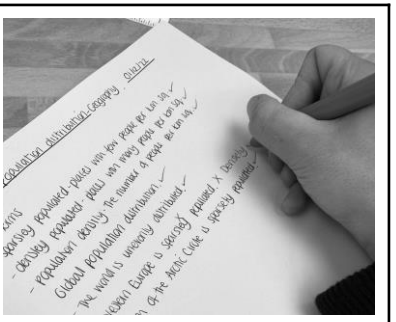
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English

Look | Cover | Write | Correct

A: Grammar	B: Methods	C: Themes
Noun: a word used to name a person, place or thing. E.g. *The **Anglo Saxons** lived in **Britannia** and wrote in **runes*** **Verb**: a word used to name an action or occurrence. E.g. *Alfred **fought** the Vikings in battle and **became** King Alfred the Great.* **Adjective**: a word used to describe a noun. E.g. *The **beautiful** Lindisfarne Gospels are some of the **earliest** manuscripts to have survived.* **Adverb**: a word used to describe a verb. E.g. *Tyndale **carefully** smuggled Bibles into England* **Subject**: the person or thing in a sentence that is doing something. E.g. ***Tyndale** carefully smuggled Bibles into England* **Object**: the person or thing in a sentence that something is done to E.g. *Tyndale smuggled **Bibles** into England* **Independent clause**: a group of words that contain a subject and a verb, that makes sense as a complete thought. E.g.***The pieces of Uranus's body remained in the sea.*** **Dependent clause**: a group of words that contains a subject and verb but does not express a complete thought. E.g. *The pieces of Uranus's body remained in the sea, **where a white foam surrounded them.*** **Simple Sentence**: a sentence that has only one clause (containing a subject and a verb). E.g.*Prospero commanded Ariel to make the storm.* **Compound Sentence**: a sentence that has two independent clauses, joined by a conjunction like 'and' or 'but'. E.g. *Prospero commanded Ariel to make the storm, **but** the storm did not harm anyone on the ship.* **Complex Sentence**: a sentence that contains an independent clause and at least one dependent clause (often in the form of an extra piece of information). E.g. *Prospero commanded Ariel to make the storm, **hoping to get revenge on his enemies.***	**Anthropomorphism / humanisation**: the attribution of human characteristics or behaviour to a god, animal, or object. E.g. *The Greek gods are presented as humans through their behaviour and emotions.* **Personification**: giving something inanimate or not human, human qualities. E.g. *Uranus represents the sky.* **Symbol**: a person, colour, object, word etc. that represents something else. E.g. *Zeus possesses a lightning bolt which represents that he is god of the sky.* **Imagery:** the use of language to create images in the reader's minds. E.g. *"With eyes that dripped with poisonous tears and breath that was too foul to bear…"* **Staging**: the method of presenting a play or other dramatic performance. E.g. S*hakespeare carefully considered how the play will be staged - where characters will be positioned etc.* **Adjective**: a word that describes a noun. E.g.*"you bawling, blasphemous, incharitable dog!"* **Pathetic fallacy**: the use of the weather / setting to reflect the mood. E.g. *the storm in the opening of the play reflects the uncertainty of subsequent events.* **Simile**: comparing something to something else using "like" or "as". E.g.*"Nor lead me like a firebrand in the dark"* **Metaphor**: saying something is something else. E.g.*"he was / The ivy which had hid my princely trunk"* **Repetition**: saying something more than once. E.g. *Prospero repeats the story of how he saved Ariel.* **Soliloquy:** when a character speaks their inner thoughts out loud to the audience. E.g. i*n Act One Scene Three, Caliban begins his soliloquy: "All the infections that the sun sucks up"* **Dramatic irony:** when the audience is better informed about something than at least one character. E.g. *the audience knows that characters are safe and distributed throughout the island and individual characters are unaware of this and believe that they are isolated from humanity.*	**Revenge**: a theme mainly associated with a character's anger or grief. A character seeking vengeance may commit an act of revenge. E.g. *Gaea wanted revenge on Uranus because he banished their children to Tartarus*. **Betrayal**: a theme affecting characters' relationships. Like revenge, it is a theme which often brings about a character's worst side. E.g. *Prometheus betrayed Zeus by supporting the humans.* **Morality**: a theme where characters' moral judgments and their sense of right and wrong are explored. A character may be regarded as moral or immoral. **Power**: a common theme running through so many literature texts including myths, Chaucer and 'The Tempest'. E.g. i*n 'The Tempest' Prospero holds colonial power over Caliban but Ariel has magical power.* **Supernatural**: the theme of the supernatural helps to create a mystical effect for readers. It centres around characters such as Aerial in 'The Tempest'.In myths there are many supernatural beings. The supernatural would have been an exciting theme for Shakespeare's audience. **Hierarchy**: the theme of hierarchy establishes a social order usually based on status, authority, wealth, gender. **Usurpation**: the act of overthrowing someone in a position of power. E.g. *Prospero was a victim of usurpation.* **Conspiracy**: a secret plan to do something unlawful or harmful. E.g. Antonio's conspiracy to overthrow Prospero was successful. **Ambition**: Ambition is a key theme in many literature texts. It is a strong desire to do or achieve something. E.g. *Antonio's ambition was driven by a desire for power.* **Mercy**: the kindly treatment of those in distress, especially when a character has the power to punish or harm. E.g. Prospero shows mercy to Antonio at the end of the play. **Forgiveness**: a conscious, deliberate decision to let go of feelings of anger or vengeance. E.g. *Prospero shows forgiveness towards those who conspired against him.* **Justice:** a deserved punishment/reward; fairness. E.g. *Justice was served when Kronos mutilated Uranus.*

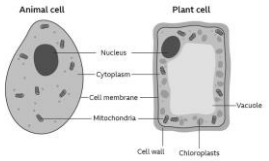
Science

Look | Cover | Write | Correct

A: Cells

All cells have:
- Nucleus: Controls cell processes and contains DNA
- Cytoplasm: Where the chemical reactions of the cell take place
- Mitochondria: Site of respiration to release energy
- Cell membrane: Controls movement of substances in and out of the cell

Plant cells can also have
- Sap Vacuole: Space in cell to store sap
- Cell Wall: Provides structure to the cell
- Chloroplasts: Site of photosynthesis



Specialised cell examples
Red blood cells: Carry oxygen
Root hair cells: absorb water in plants
Sex cells (sperm and egg): contain half the genetic information for a new life

B: Particles

Solid	Liquid	Gas
Melting / Freezing	Evaporating / Condensing	
Particles have a regular pattern and vibrate in position. Fixed shape and volume	Particles are able to move past each. Liquids can flow, taking the shape of the bottom of a containr. Fixed volume	Particles move randomly in all directions. Fill the space available and can be compressed. No fixed shape or volume

C: Forces

- A force is a push or pull that causes a change in speed, shape or direction.
- Contact forces involve objects that are touching such as elastic force, air resistance, friction, tension and compression
- Non-contact forces are caused by fields and act at a distance such as magnetism, gravity and electrostatic force
- Forces are measured in Newtons
- Forces can be represented by arrows. The size of the arrow represents the amount of force and the direction shows which way it is acting.
- Balanced forces: When all the forces on an object are balanced, then the object will carry on at the same speed, or stay still if it is not moving.
- Unbalanced forces will cause a change in speed or direction.

D: Atoms and elements

- An atom is the smallest particle of an element that can exist. They are made of protons and neutrons in a nucleus, with electrons orbiting.
- An element is made of only one type of atom
- A compound is two or more elements chemically joined together
- A mixture is two or more elements or compounds that are not joined and can be separated by physical processes like filtering.

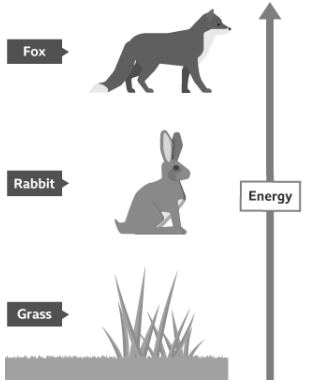
Solutions
- A solution is made when a solute is dissolved in a solvent. For example: Salty water is a solution of salt (solute) and water (solvent

Separating substances
- Chromatography is the separation of colours in a substance using a solvent
- Filtration uses filters to separate solids from liquids
- Distillation can separate liquids with different boiling points

E: Energy

Energy can be described as being in different 'stores' and has the unit Joules. Energy cannot be created or destroyed, but it can be transferred from one energy store to other energy store.
- Energy stores include thermal, chemical, kinetic, electrical potential, elastic potential, gravitational potential and nuclear
- The four main types of energy transfer are mechanical, electrical, heating and radiation
- Whenever energy is transferred some energy is dissipated.
- Conduction, convection and thermal radiation are ways of describing thermal energy transfers. Thermal energy always goes from the hotter area to the cooler.
- Conduction is thermal energy transferred in solids by particles vibrating
- Convection is thermal energy transferred in liquids and gases caused by less dense fluids rising and creating currents
- Infra red radiation is thermal energy transferred by waves.

F: Ecology



- Food chains and webs have producers and consumers. They show how energy is transferred in living things.
- Producer: Usually plants that produce their own food by photosynthesis
- Consumer: Animal that eats a producer or other animals
- Herbivore: animal that only eats producers(plants)
- Predator: Animal that eats other animals
- Prey: Animal that is eaten

Geography

Look | Cover | Write | Correct

A: Population distribution:

Key terms:
- Sparsely Populated: Places with few people per km sq.
- Densely populated: Places with many people per km sq.
- Population density: The number of people per km sq.

Global population distribution:
- The world is unevenly distributed
- Western Europe is a densely populated area.
- North of the Arctic Circle it is sparsely populated.

There are human and physical reasons for population distribution.

Dense	Sparse
Good water supply (physical)	Steep slopes (physical)
Jobs available (human)	Lack of transport links (human)

B: Population growth:

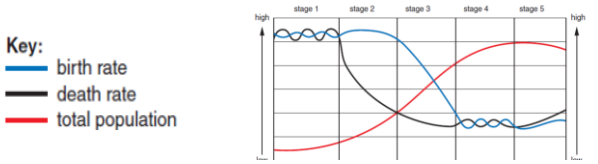
Key terms:
- Birth rates (BR): births per 1000.
- Death rates (DR): deaths per 1000.
- Infant mortality: number of babies that die before their first birthday per 1000.

Global population growth:
- World population is rapidly increasing. The explosion started in 1950 and is predicted to peak by 2100.
- BR's are higher than DR's, causing a natural increase.

Overpopulation:
- Means too many people in a country for the resources available.
- Consequences, include: starvation, diseases like cholera from dirty water, pressure on services and schools, pressure on housing leading to more shanty settlements.

C: The Demographic Transition Model (DTM)

The DTM shows what happens to a country's birth rate, death rate and population overtime. There are 5 stages:

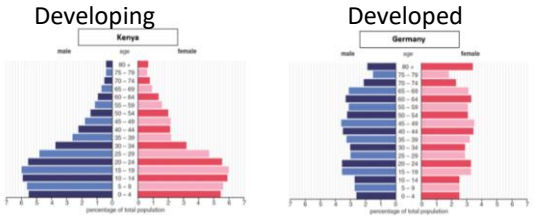


1: High BR & DR, so a small population.
2: Medicines and hygiene improve, DR falls, BR remains high, rapid population growth
3: DR continues to fall, BR starts to fall. Contraception females begin to attend school/work. Population growing slowly.
4: BR & DR are low, growth stable, population is high, e.g. UK.
5: BR could fall below the DR - population decline e.g. Japan.

D: Population structure (population pyramids):

- Population structure: % of people in each age range, grouped into male and female.
- Population pyramids show population structure. There are three groups on a population pyramid: Economically active, Young dependents, Elderly dependents

Features of population pyramids:
- Developing countries: wide base - high birth rate, narrow top - lower life expectancy. Stage 3 DTM.
- Developed countries: narrow base - low birth rate, wide top - long life expectancy. Stage 4 DTM.



E: Population structure changes as a country develops

As a country develops the top of the pyramid gets wider due to increased life expectancy.
Life expectancy – The average age you are expected to live to in a country.
Factors that cause this are:
- Better healthcare
- Improved standards of living
- Education

As a country develops the base of the pyramid gets narrower due to decreasing birth rates:
Factors which cause this are:
- Education
- Access to contraception and family planning
- Growth of materialism

F: Ageing populations (UK):

The UK population is ageing, (many elderly dependents).
The main reasons for this are…
- Better health care increasing life expectancy.
- Better diet so less heart attacks and diseases.
- Fitness: the elderly are looking after themselves more

Negatives	Positives
• Increased waiting times (NHS)	• Disposable cash - increased employment opportunities.
• Treating illness (tax use)	• Seasonal areas of employment remain busy, providing tax.
• State pensions (expensive)	• Free grandchild care means less childcare costs.

History

Look | Cover | Write | Correct

A: What is History: Key Words	B: What is History: Source skills	C: Migration: Key dates
Cause: Studying the reason for why something has happened. **Consequence**: A result of an event. **Judgement**: Studying both sides of a debate to reach an overall **conclusion** **Significance**: Something of great importance **Change**: To become different, to transform over time. **Continuity**: When things continue to stay the same over time **Historical Interpretations** = Studying how and why people look at different events in history in different ways **Chronology**: The order of events, earliest to latest **Artefact**: An historical object **Bias:** one sided opinion/fact **BCE**: Before the Common Era (Before Christ was born) **CE:** Common Era (after birth of Christ)	**Source analysis:** To study and break down a piece of evidence (source) looking at the content of the source **Context:** evidence to back up the source **Validity of a source of evidence:** Is the source factually correct **Reliability of a source of evidence:** Can the information in the source of evidence be trusted **Source evaluation:** How valuable is the source based on the provenance of the source **Provenance:** What is the origin, nature and purpose of a source of evidence **Sources of evidence:** Written, oral or physical objects or accounts that reveal information about the past **Primary/ Contemporary sources:** Evidence produced at the time of the event **Secondary Evidence:** Evidence produced after the event	**800,000 BCE:** The first humans arrive in the British Isles. They were probably **hunter-gatherers,** **500 BCE:** Arrival of the **Celts** from Europe. **43-410 CE:** The **Romans** arrive, defeat the Celts and rule England for hundreds of years **450 CE:** Arrival of **Angles and Saxons** in England from Denmark and northern Germany. **800 CE:** First **Viking** raids begin. In 1016, a Viking, Canute, defeats the Saxons and becomes king of England. **1066 CE:** The **Normans** conquer England under William, Duke of Normandy. The first Jews arrive from Europe. **1290 CE: Jews are expelled** from Britain. They are not permitted to return until 1656.
D: Migration Key dates and key words	**E: Medieval World Key Dates**	**F: Medieval World Key People and Words**
1572 CE: St Bartholomew's Day massacre :**Huguenots** (French Protestants) arriving in Britain. **1620 CE**: The Mayflower (a ship) arrives in the 'New World' with **Puritan settlers** from England. **1845-52** CE: The Irish Potato Famine leads to widespread migration of **Irish families** to the UK. **1948 CE:** SS Empire Windrush arrives from the **West Indies** with people hoping to work in Britain. **Migration**: The movement of people to and from a place **Indigenous people**: The original inhabitants. **Economic migrant**: To move for financial reasons **Asylum seeker: T**o seek refuge from persecution **Discrimination**: To be persecuted for your race/ culture/ beliefs/ gender/ politics	**1066:** The Battle of Hastings and the Norman Conquest **1085**: The Domesday Book is completed **1095**: The First Crusade is decreed by the Pope **1170**: Thomas Becket, The Archbishop of Canterbury is murdered. **1215**: The Magna Carta is signed **1314** The battle of Bannockburn is fought in Scotland **1348:** The Black Death comes to Britain **1381**: The Peasants revolt **1415**: Henry V defeated the French at Agincourt **1485**: Henry Tudor defeated Richard III at the Battle of Bosworth	**William Duke of Normandy:** Known as William the Conqueror **Feudal System:** hierarchical system that separated society **Domesday Book: A** list of all the properties,land and resources in England in 1085 **Crusade:** 'Holy War' **Pope Urban II:** head of the Catholic Church (Pope Urban lead the first crusade **Christendom:** Christian World **Knights:** Warrior/soldiers **Archbishop:** senior member of the Church in England **Henry II:** The English King who had Becket murdered **King John:** the King that was forced to sign the Magna Carta **Magna Carta:** the Great Charter that King John was forced to sign to keep his barons happy **Barons:** Important and powerful members of society

Religious Studies

Look | Cover | Write | Correct

A: Origins of Abrahamic Faith	B: Origins of Abrahamic Faith	C: Origins of Abrahamic Faith
Genesis: First book of the Jewish and Christian scriptures. **Adam and Eve**: According to Genesis, they were the first human beings created by God. **Noah:** The hero of the Biblical flood story. **The Flood**: God's decision to return the Earth to it's pre-creation state of watery chaos, and then remake it.	**Abraham (Ibrahim):** A core prophet in Judaism, Christianity and Islam. **Covenant:** Conditional promises made by humanity to God. **Sacrifice:** An act of slaughtering an animal or person surrendering a possession as an offering to a deity. **Isaac:** Abrahams son who went on to be the ancestor of the Jewish people. Ishmael-Abrahams son who went on to be the ancestor of the Muslim people. **Mecca:** Holy city for Muslims established by Ibrahim and Ishmael. **Moses:** The Hebrew prophet who led the Israelites out of Egypt and delivered the Law during their years of wandering in the wilderness.	**Day of Atonement:** A religious practice described in Leviticus to remove the sins of the community. **Jesus:** First-century Jewish teacher who Christians believe to be the Son of God. **Pharisees**: An ancient Jewish group, distinguished by strict observance of the traditional and written law. **Crucifixion:** An ancient form of execution in which a person was nailed or bound to a cross. **Salvation:** Saving from sin and its consequences, believed by Christians to be brought about by faith in Jesus.
D: Philosophy of Religion	**E: Philosophy of Religion**	**F: Philosophy of Religion**
Philosophy is the study of the fundamental nature of knowledge, reality and existence **Omnipotent**: classical belief that God is all-powerful **Omniscient**: classical belief that God is all-knowing **Omnibenevolent** classical belief that God is all-loving **Transcendent**: God is outside the universe. **Theists**: People who believe that God exists. **Agnostics**: People who argue that we can never know with certainty if God exists or not. **Atheists**: People who believe that God does not exist.	**William Paley** wrote an argument for the existence of God called the **Design Argument**. –complexity and purpose prove the existence of God. **David Hume** argues the Design argument is flawed because the universe is nothing like a watch. **The cosmological argument** is used by Thomas Aquinas to prove the existence of God-everything has a First Cause.	Bertrand Russell argued that the universe does not need to have a First Cause. **The Problem of evil:** The argument that the existence of evil undermines belief in an omnipotent and omnibenevolent God **Theodicy:** An argument which defends God against the problem of evil. **Religious Experience:** An experience which has a religious meaning for the person who experienced it-examples conversion/prayer/mysticism.

French

Look | Say | Cover | Write | Correct

A: Ma famille (My family)

Bonjour! **Je voudrais** me présenter.
Je m'appelle Sophie et
j'ai quatorze ans.
Mon anniversaire **est** le premier janvier.
Je suis française et je **viens** de Paris.
Maintenant **j'ai** les yeux marron et
les cheveux longs et châtains
mais quand **j'étais** plus jeune
j'avais les yeux bleus et les cheveux blonds.
Je dirais que **je suis** assez timide,
cependant **je suis** aussi très sportive
Avant, **j'étais** plus paresseuse.
Dans ma famille **il y a** cinq personnes:
mes parents, mes deux sœurs et moi.
J'aime ma mère: **elle est** sympa et belle,
Je m'entends bien avec mon père
parce qu'**il est** marrant et **il me fait** rire.
Je ne m'entends pas bien avec ma sœur,
qui **s'appelle** Anne,
car **elle est** parfois méchante.
En ce moment, **je n'ai pas** d'animal
mais dans le futur, **je voudrais** avoir
un chien noir ou une souris blanche.
En général, **j'adore** ma famille
bien que **je me dispute** avec ma sœur
de temps en temps.

Hello! **I would like** to introduce myself.
I call myself (I'm called) Sophie and
I have (I am) fourteen years old.
My birthday **is** the first of January.
I am French and **I come** from Paris.
Now I **have** brown eyes and
long, light brown hair
but when **I was** younger,
I had blue eyes and blond hair.
I would say that **I am** quite shy,
however **I am** also very sporty.
Before, **I was** more lazy.
In my family, **there are** five people:
my parents, my two sisters and me.
I like my mum: **she is** kind and beautiful.
I get on well with my dad
because **he is** funny and **makes me**
laugh.
I don't get on well with my sister,
who **calls herself (is called)** Anne,
because **she is** sometimes mean.
At the moment, **I don't have** a pet
but in the future, **I would like** to have
a black dog or a white mouse.
In general, **I love** my family
Although **I argue** with my sister
from time to time.

B: Mes passe-temps (My leisure activities)

Normalement, pendant mon temps libre
je joue au foot avec ma sœur
et parfois **nous faisons** de la danse.
J'adore jouer au foot
car **je trouve** ça très sociable.
De plus, la musique **c'est** ma passion!
Donc, **je joue** de la guitare
tous les jours après le collège
et **je joue** du piano depuis cinq ans.

Je *ne* **fais** *jamais* de la gymnastique
puisque **c'est** trop fatigant.
Quand **j'étais** plus jeune,
je jouais au basket cependant
je pense que **c'était** un peu ennuyeux.
Hier soir **j'ai joué** aux cartes
avec mon père et **j'ai gagné**!
Ensuite, **nous avons regardé** la télé,
mais ma sœur **a chanté** dans un concert!
Le weekend prochain, **je vais** faire
de l'escalade avec mes copains
ce qui **sera** un peu effrayant!
À l'avenir, **je voudrais** faire du surf
car **j'adore** les sports aquatiques.

Usually, during my free time
I play football with my sister
and sometimes **we do** dancing (dance).
I love to play (playing) football
because **I find** it very sociable.
Furthermore, music **it's** my passion!
Therefore, **I play** the guitar
every day after school
and **I play** (have been playing) the piano
since (for) five years.
I *never* **do** gymnastics
since **it's** too tiring.
When **I was** younger,
I used to play basketball however
I think that **it was** a bit boring.
Yesterday **I (have) played** cards
with my dad and **I (have) won**!
Then, **we (have) watched** TV
but my sister **(has) sang** in a concert.
Next weekend, **I'm going** to do
rock climbing with my friends
which **will be** a bit frightening!
In the future, **I would like** to do surfing
because **I love** water sports.

C: Mon collège (My school)

Mon collège, qui **s'appelle** Launceston College, **est** un collège mixte à la campagne.
Le lundi, **j'étudie** l'anglais, qui **est** ma matière préférée car **je pense** que **c'est** utile.
Cependant je *n'***aime** *pas* du tout les maths parce que **je** *ne* **suis** *pas* bon en maths.
L'année dernière, à l'école primaire, **j'ai étudié** l'art, ce qui **était** un peu ennuyeux.
L'année prochaine, **je vais** étudier l'informatique car **ce sera** très intéressant.
Pendant la pause déjeuner, **je mange** à la cantine avec mes amis.
D'habitude, **je mange** du poulet avec des frites et **je bois** du coca,
ce que **j'adore** mais **ce** *n'***est** *pas* bon pour la santé.
Dans mon collège, **on doit** porter un polo blanc, un pull bleu et un pantalon noir.
Je pense que porter un uniforme **est** une bonne idée
car **on doit** tous porter les mêmes vêtements.

My school, which **is** called Launceston College, **is** a mixed school in the countryside.
On Mondays, **I study** English which **is** my favourite subject because I **think** that **it's** useful.
However **I** *don't* **like** maths at all because **I am** *not* good at maths.
Last year, at primary school, **I studied** art which **was** a bit boring.
Next year, **I am going** to study IT because **it will be** really interesting.
During lunchtime, **I eat** in the canteen with my friends.
Usually **I eat** chicken with chips and I **drink** some coke,
which **I love** but it **is***n't* good for your health.
In my school, **we/you have to** wear a white polo, a blue jumper and black trousers.
I think that wearing a uniform **is** a good idea
because **we must** all wear the same clothes.

Spanish

Look | Say | Cover | Write | Correct

A: Mi familia (My family)

¡Hola! **Me gustaría** presentarme.
Me llamo Enrique y
tengo catorce años.
Mi cumpleaños **es** el uno de enero.
Soy español y **vengo** de Madrid.
Ahora **tengo** los ojos marrones y
el pelo largo y castaño
pero cuando **era** más joven,
tenía los ojos azules y el pelo rubio.
Diría que **soy** bastante tímido,
sin embargo también **soy** muy deportista
Antes, **era** más perezoso.
En mi familia, **hay** cinco personas:
mis padres, mis dos hermanas y yo.
Me gusta madre: es simpática y bonita.
Me llevo bien con mi padre
porque es gracioso y **me hace** reír.
No **me llevo** bien con mi hermana,
que **se llama** Anabella,
dado que a veces **es** antipática.
En este momento, *no* **tengo** mascota
pero en el futuro, **me gustaría** tener
un perro negro o una serpiente amarilla.
Generalmente **me encanta** mi familia
aunque **me peleo** con mi hermana
de vez en cuando.

Hello! **I would like** to introduce myself.
I call myself (I'm called) Enrique and
I have (I am) fourteen years old.
My birthday **is** the first of January.
I am Spanish and **I come** from Madrid
Now **I have** brown eyes and
long, light brown hair
but when **I was** younger,
I had blue eyes and blond hair.
I would say that **I am** quite shy,
however **I am** also very sporty.
Before, **I was** more lazy.
In my family, **there are** five people:
my parents, my two sisters and me.
I like my mum: **she is** kind and beautiful.
I get on well with my dad
because **he is** funny and **makes me** laugh.
I *don't* **get** on well with my sister,
who **calls herself (is called)** Ana,
given that she **is** sometimes mean.
At the moment, **I** *don't* **have** a pet
but in the future, **I would lik**e to have
a black dog or a yellow snake.
In general, **I love** my family
although **I argue** with my sister
from time to time.

B: Mis pasatiempos (My hobbies)

Normalmente, durante mi tiempo libre
juego al fútbol con mi hermana
y a veces **bailamos**.
Me encanta jugar al fútbol
porque **me parece** muy sociable.
¡Además, la música **es** mi pasión!
Por eso, **toco** la guitarra
todos los días después del colegio
y **toco** el piano desde hace cinco años.

Nunca **hago** gimnasia
ya que **es** demasiado agotadora
Cuando **era** más joven,
jugaba al baloncesto sin embargo
pienso que **era** un poco aburrido.
Ayer **jugué** a las cartas
con mi padre ¡y **gané**!
Luego, **vimos** la tele y **toqué** el piano,

pero mi hermana **cantó** en un concierto.
El fin de semana próximo, **voy a hacer**
escalada con mis amigos
¡qué miedo!
En el futuro, **quisiera** practicar surf
porque **me chiflan** los deportes acuáticos.

Usually, during my free time
I play football with my sister
and sometimes **we dance**.
I love to play (playing) football
because **I find it** very sociable.
Furthermore, music **is** my passion!
Therefore, **I play** the guitar
every day after school
and **I play** (have been playing) the piano
since (for) five years.
I never **do** gymnastics
since **it's** too tiring.
When **I was** younger,
I used to play basketball however
I think that **it was** a bit boring.
Yesterday **I played** cards
with my dad and **I won**!
Then, **we watched** TV and **I played** the
piano,
but my sister **sang** in a concert.
Next weekend, **I'm going to do**
rock climbing with my friends
How scary!
In the future, **I would like** to do surfing
because **I love** water sports.

C: Mi colegio (My school)

Mi colegio **se llama** Launceston College y **es** un instituto mixto en el campo.
Me gusta mucho mi insti porque **tengo** muchos amigos y **hay** mucho que hacer.
Los lunes **estudio** inglés que **es** mi asignatura favorita porque **creo** que **es** útil
sin embargo *no* **me gustan** nada las matemáticas dado que *no* **se me dan bien**.
El año pasado, en la escuela primaria, **estudié** dibujo que **fue** un poco aburrido.
El año que viene, **voy a estudia**r informática porque será bastante interesante.
Durante la hora de comer, **como** en el comedor con mis compañeros.
Generalmente, **almuerzo** pollo con patatas fritas y **bebo** una cocacola,
que **me encanta** pero **no es** bueno para la salud.
En mi insti, **se debe** llevar un polo blanco, un jersey azul y unos pantalones negros.
Pienso que llevar uniforme **es** una buena idea ya que todos **debemos** llevar la misma ropa.

My school **is called** Launceston College and **it's** a mixed school in the countryside
I really **like** my school because **I have** lots of friends and there are lots of things to do.
On Mondays **I study** English which **is** my favourite subject because **I think** that **it's** useful
however **I** *don't* **like** maths at all because **I am** *not* good at it.
Last year, at primary school, **I studied** art which **was** a bit boring.
Next year, **I am going to study** IT because **it will be** really interesting.
During lunchtime, **I eat** in the canteen with my friends.
Usually **I eat** (for lunch) chicken with chips and **I drink** some coke,
which **I love** but **it isn't** good for your health.
In my school, **we/you have to** wear a white polo, a blue jumper and some black trousers.
I **think** that wearing a uniform **is** a good idea because **we must** all wear the same clothes.

Physical Education

Look | Cover | Write | Correct

A: Effective warm ups and the muscular system	B: The immediate effects of exercise	C: Importance of healthy lifestyle
What is a pulse raiser? Activities that gradually increase in intensity to increase the heart rate. Example: Jogging. **What is mobilisation?** Activities that take the joints through their range of movement starting with small movements and making these bigger as the warm-up progresses. Example: Arm Circles, **What is the stretch phase?** Activities to stretch the main muscles that will be used in the physical activity. Example: Dynamic - Walking lunges. Static deltoid stretch. **What are the Major Muscles?** Deltoids, biceps, triceps, erector spinae,abdominals,obliques, hip flexors, gluteus maximus, quadriceps, hamstrings, gastrocnemius	**Increased Heart Rate** The heart rate increases so that sufficient blood is taken to the working muscles to provide them with enough nutrients and oxygen. An increase in heart rate also allows for waste products to be removed. **Increased Breathing Rate** This gets more oxygen into the lungs and removes more carbon dioxide out of the lungs. **Increased Body Temperature** It's your body's way of regulating your core temperature, preventing you from overheating! Your muscles heat up as they expend energy during exertion.	**What are the physical benefits?** Improve fitness, body composition, sleep, immunity to help prevent illness, symptoms of long-term health conditions. **What are the social benefits?** Meet new people, make friends, have fun, develop leadership and team working skills, decrease loneliness. **What are mental health benefits?** Decrease stress levels, improve work life balance, decrease risk of depression, improve mood, increase self-confidence and self-esteem. A healthy active lifestyle is essential for physical and mental health and wellbeing. You should be physically active for at least 60 minutes a day.
D: Sedentary lifestyles health and wellbeing	**E: Components of physical fitness**	**F: Components of skill-related fitness**
Symptoms of long-term health conditions that can be reduced through exercise: **Asthma -** constriction of the bronchial airways and inflammation of the mucous membranes, which restrict the airways and limit breathing **Coronary Heart Disease -** the narrowing of coronary arteries reducing oxygenated blood flow to the cardiac muscle. **Type 2 diabetes** - is a common condition that causes the level of sugar (glucose) in the blood to become too high. **What are the 5 key food groups that make up a healthy diet?** **A healthy diet:** 5 food groups: Carbohydrates, Protein, Fruit and Veg, Dairy (if applicable) and Fats. Your diet is also important in aiding sports performance and wellbeing.	**Aerobic endurance** – the ability of the cardiorespiratory system to supply oxygen and nutrients to the muscles to sustain low to medium intensity work to delay fatigue. **Muscular endurance** – the ability of the muscular system to continue to contract at a light to moderate intensity to allow repetitive movements throughout a long event or game. **Muscular strength** – the maximum force that can be generated by a muscle or muscle group to improve forceful movements within an activity. **Speed** – distance divided by time to reduce time taken to move the body or a body part in an event or game. **Flexibility** – the range of motion possible at a joint to allow improvements in technique.	**Power** – the product of speed and strength to allow for explosive movements in sport. **Agility** – the ability to change direction quickly to allow performers to outmanoeuvre an opponent. **Reaction time** – the time taken between a stimulus and the start of a response, useful in fast-paced sports to make quick decisions about what to do. **Balance** – the ability to maintain centre of mass over a base of support, useful to maintain positions in performance sports (static balance) or when on the move in any other sporting situation (dynamic balance). **Coordination** – the ability to move two or more body parts at the same

Art

Look | Cover | Write | Correct

A: Key words

Line: Line is the path left by a moving point for example a pencil or a brush. A line can be horizontal, vertical, diagonal or curved and of any length.
Shape: A shape is an area enclosed by a line. It can consist of an outline or be shaded in. Shapes can be geometric or irregular.
Tone: This refers to the lightness or darkness of something. This could be a shade or light or dark or colour appears.
Pattern-A design that is created by repeating lines, shapes, tones or

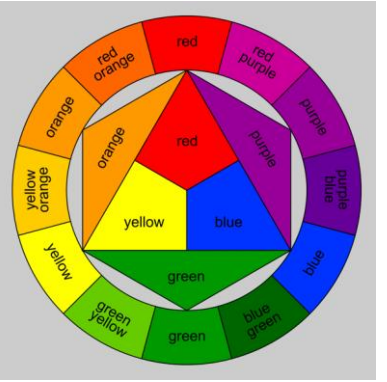
B: Colour theory

Primary colours: Red, Yellow and Blue. These colours cannot be made but are used to make all other colours.
Secondary colours: These are made by mixing 2 primary colours together.
Tertiary colours- These are made by mixing a primary colour with a secondary colour

Complementary colours: These colours are opposite each other on the colour wheel.
Tint- is when a colour is added to white.
Shade -is when black is added to a colour
Harmonious colours sit beside each other on the colour wheel.

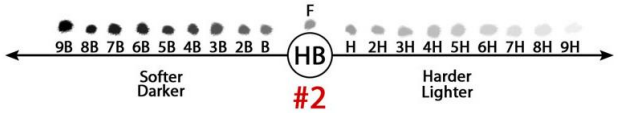
C: Colour theory

Warm and cool colours
The twelve part colour wheel can be split in half into a section of six **warm** colours and a section of six **cool** colours.



D: Grades of pencil

"H" pencils feature harder graphite. (The "H" stands for "hard".)
"B" pencils feature softer graphite. (The "B" stands for "black".)
The number found in front of the letter reveals just how soft or hard the pencil is. In other words, a "4H" pencil is harder than a "2H" pencil while a "4B" pencil is softer than a "2B" pencil



E: Wassily Kandinsky

Wassily **Kandinsky** was a Russian painter and art theorist. **Kandinsky** is generally credited as one of the pioneers of abstraction in western art,

Composition 8, 1923. Yellow-Red-Blue 1925

Influenced by Pablo Picasso, Vincent Van Gogh, Henri Matisse and Claude Monet.

F: Warm and cool colours

Warm Colours advance towards you. Andy Warhol's *Cow* (1966) was one of a series of brightly coloured prints used as a wallpaper design, Warhol deliberately used bright and unnaturally warm colours.

Cool colours recede into the background. Cool colours can be calming and relaxing but can also be used to signify sadness.
The Old Guitarist was painted by Picasso between 1903 and 1904, during his Blue Period

Drama

Look | Cover | Write | Correct

A: Mime

The four rules of mime
Objects must stay the same **Size**
Objects must stay the same **Shape**
Objects must stay the same **Weight**
Objects must stay in the same **Position** in the space

Why are these skills important in Mime?
Facial expressions-a form of nonverbal signaling using the movement of face
Gesture- any act or action which communicates a thought
Mannerisms- a gesture, or way of conduct that is characteristic of an individual
Slapstick-a type of physical comedy characterised by, absurd situations, and vigorous, usually violent action.
Rule of three Physical comedy involving three instances where the first two are normal and the 3rd results in hilarity. E.g a banana skin on the floor two people see it and walk over it and the 3rd slips over
Why is the rule of three used in slapstick?

B: Greek Theatre

Amphitheatre- An oval or circular, open-air performance space with tiered seating on all sides.
Greek Chorus-A company of actors who comment (by speaking or singing in unison) on the action in a play.
Cannon- a chorus of people repeating the same actions or speech slightly after one another.
Unison- **a** group of performers doing the same thing at the. same time
Myth- a classic or legendary story that usually focuses on a particular hero or event, and explains mysteries of nature, existence, or the universe with no true basis in fact.
Physical theatre-A movement based style of theatre, using our bodies to create narrative and create mood and atmosphere.
Tragedy- a play in which the protagonist, usually a person of importance and outstanding personal qualities, falls to disaster through the combination of a personal failing and circumstances with which he or she cannot deal.
Comedy- The most famous playwrights of the genre poked fun at politicians, philosophers, and fellow artists.
Satyr- short plays were performed between the acts of tragedies and made fun of the plight of the tragedy's characters.

C: Romeo and Juliet

Tragedy - A branch of drama that usually depicts the downfall and the reversal of fortune of a good person; suffering usually awaits many of the characters, especially the tragic hero.
Foreshadowing - A device in which an author suggests certain plot developments that might come later in the play.
Imagery - Use of language which is visually descriptive or symbolic.
Irony - The use of words where the meaning is contrary to what is expected to actually occur.
Dramatic monologue - A passage of speech in which one person is speaking to an audience or “thinking out loud”.
Fate - The development of events outside an individuals’ control, it is sometimes said to be determined by a supernatural power.
Patriarchy - A system of society whereby men have ultimate authority which they use to oppress women who are largely excluded from the male dominated society.

D: Dramatic techniques

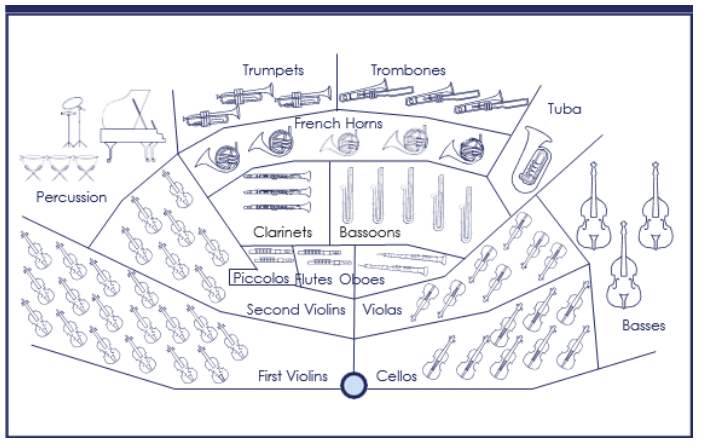
Still Image-Participants create an image using their bodies – with no movement to portray meaning
Thought tracking-when a character steps out of a scene to address the. audience about how they're feeling.
Hot seating-An actor sits in the hot-seat and is questioned in role to deepen understanding of character
Greek Chorus-A company of actors who comment (by speaking or singing in unison) on the action in a play.
Narration- the act of telling a story or giving account of something
Soundscaping- Using voice and body to create the sound of an environment.
Flashback-helps to flesh out a dramatic moment or create the beginnings of a story.
Physical theatre-A movement based style of theatre, using our bodies to create narrative and create mood and atmosphere.

Music

Look | Cover | Write | Correct

A: Musical context

Instruments of the orchestra

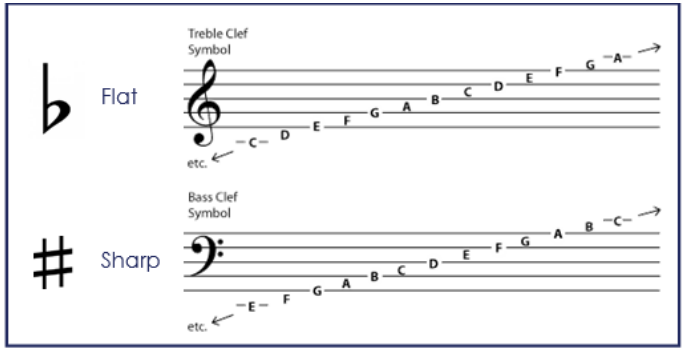


B: Terminology

Tonality: The key of a piece
Pitch: High/low sound of a note
Melody: The tune
Articulation: How a note is played.
Structure: The order of the sections in a piece of music, the 'form'
Dynamics: The loudness of the music
Timbre: the tone and quality of sound
Tempo: speed of the music
Rhythm: length of notes and how they are organised

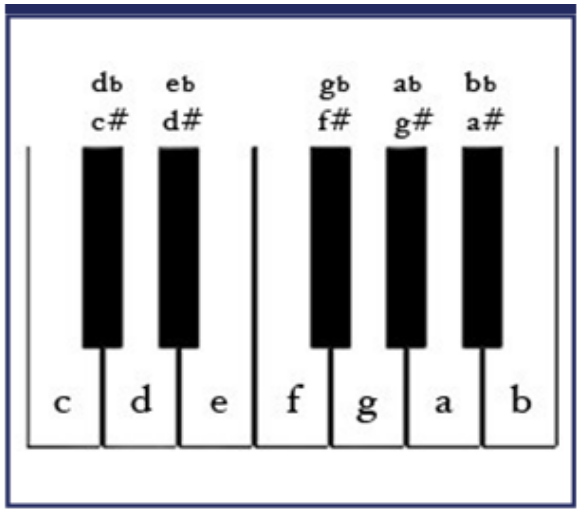
C: Theory

Finding the notes on the treble and bass staves



D: Keyboard layout

Can you draw and labela keyboard accurately?



E: Notes

Note Name	Note Symbol	Note Value
Semi-breve (whole note)		4 beats
Minim (½ note)		2 beats
Crotchet (½ note)		1/4 of a beat
Quaver (1/8 note)		1/2 of a beat
Pair of Quavers (1/8 note +1/8 note)		2x 1/2 beats = 1
Semi-quaver (1/16 note)		1/4 of a beat

F: Vocabulary

Scale: Pitches moving by step in a sequence
Tone: A whole step i.e. C to D.
Semitone: A half step i.e. C to C#.
Major: Bright' sound – Tone – tone pattern.
Minor: 'Sad' sound – Tone – semitone pattern
Binary Form: Two sections, 'A B' structure.
Ostinato: repeated rhythm
Chromatic: moving pitch by semitones
Diatonic: moving pitch by notes on a scale
Legato: Notes played smoothly and attached
Staccato: Notes played separated and detached
Accent: individual notes played louder
Pentatonic: 5 note scale
Crescendo: getting louder
Diminuendo: getting softer

Computer Science

Look | Cover | Write | Correct

A: Digital life - E-Safety

What is E-Safety?
E-Safety is the process or steps that need to be taken to stay safe online.
What are the dangers of being online?
Some of the possible dangers of being online are:

1. Strangers
2. Exposure to inappropriate / illegal content e.g. sexual materials, violence
3. Fraud
4. Viruses
5. Cyberbullying

B: Computational knowledge and understanding - Binary

What is binary?
Binary is a 8-bit number system consisting of 1's and 0's which allows the computer to communicate with hardware.
What you need to know?
Use 8-bit binary to convert to and from binary using the following method to support.

128	64	32	16	8	4	2	1

C: Computational knowledge and understanding - Encryption

A Caesar cipher, also known as Caesar shift, is one of the simplest and most widely known encryption techniques. It is a type of substitution cipher in which each letter in the plaintext is replaced by a letter some fixed number of positions down the alphabet. For example, with a left shift of 3, D would be replaced by A, E would become B, and so on. The method is named after Julius Caesar, who used it in his private correspondence.

Alphabet shifted by 3 spaces.

D: Graphics

Graphics are typically either a Bitmap or Vector image. There are some key differences between them which are listed below.

Bitmap	Vector
Made up of pixels	Made up of lines and curves
Will pixelate when made bigger or smaller	Can be resized without losing quality
Take up more memory	Takes up less memory

E: Programming concepts

Within programming there are several key concepts you will encounter. These are:

Algorithm	A process of set rules to be followed in order
Boolean	An expression used in computer programming that can result in either true or false
Code	Program instructions
Loop	Repeats a specific sequence of programmed instruction
Operators	Symbols used to represent actions (< > =)
Variable	A value which can be changed

F: Programming with Micro:Bits

Code it: First we code our program.
We can check it works by using the online Micro:Bit emulator.
Compile it: Then we compile the code.
This is where our code is converted into binary (zeros and ones) so that the Micro:bits CPU can process the program.
Flash it - Finally, we transfer the compiled program onto the device.
Flashing is where the code is stored on the Micro:bit's memory chip, ready to be executed (run)

Code it → Compile it → Flash it

Design and Technology

Look | Cover | Write | Correct

A: Food and Nutrition

Yeast: Single celled microorganisms.
It reacts to heat and causes the bread to rise by converting fermentable sugars in the dough into Carbon dioxide & ethanol.
Enzymic browning is an oxidation reaction that takes place in some foods, mostly fruit and vegetables, causing the food to turn brown

Good Hygiene
- Wash your hands
- Tie your hair back.
- Clean your utensils.
- Clean the surface.
- Use the correct chopping board.
- Wear an apron.
- Take off rings, watches and jewellery.

B: Textiles: Cup-cosy and Phone stand

Smart Materials
Thermochromic inks are those that change colour in response to changes in temperature. (Thermometer).

Photochromic materials change colour with light.

Hydrochronic change colour when immersed in water.

Phosphorescence is a process whereby energy from the sun is absorbed by a 'material' and it is released slowly over a long time, in the form of light.

C: Product Design: Pewter Keyring and Wood work

Redwood (Softwood) - Is a relatively cheap wood used in the building trade and for furniture. It is pale in colour, quite easy to cut and shape, and machines relatively well.

Oak (Hardwood) - This is an expensive material and is used for making quality, expensive furniture. Dense that takes many years to grow.
CAD- Computer Aided Design –2D Design Program.
CAM- Computer Aided Manufacture.
Pewter is heated & the temperature rises, the pewter begins to melt and quite quickly forms a molten liquid.

D: Product Design: Pod storage

Thermosetting Plastics
Once 'set' these plastics cannot be reheated to soften, shape and mould. The molecules of these plastics are cross linked in three dimensions and this is why they cannot be reshaped or recycled. The bond between the molecules is very strong.
Thermoplastics
These plastics can be re-heated and shaped in various ways. They become mouldable after reheating as they do not undergo significant chemical change. Reheating and shaping can be repeated. The bond between the molecules become weaker when reheated, allowing reshaping. These types of plastics can be recycled.
Press forming Definition: Heating & then compressing a material using a mould and a downward force, changing the shape of the material to that of the mould.