

YEAR 9



Home Learning

09 / 02 / 2026



Home Learning - Parent/Carer guide

These home learning booklets will be emailed to all parents/carers of all students in Years 7, 8 and 9 every 2 weeks on a Monday A week.

The idea is that, across 12 subjects, you will be able to speak with your child about the key pieces of knowledge that they will need to know across that 2 week period. Key Stage 3 is all about students being exposed to a knowledge-rich curriculum so that they know more and remember more about each area of study.

This E-booklet allows all parents and carers to quiz their children, to talk to them about the knowledge and maybe learn things together.

Much like the primary model of learning spellings every week, this allows all parents/carers to know the key knowledge that your child will be learning in the next two weeks and also how well your child is doing in remembering these key pieces of knowledge and information.

It is to be expected that students can remember more towards the end of the two weeks than at the beginning and you should be able to see your child make progress.

This can all be done with no pen, no paper, just discussion. Quiz your child whilst having dinner maybe, or even let them quiz you if you would like to learn together! Of course, you can get your child to write down answers but it is not necessary.

I hope that this new initiative allows parents to be more involved with your child's home learning without the pressure and stress that some homework tasks can put on child/parent relationships.

If you have any questions or would like to know more about home-learning at Penketh High School then please get in touch with me directly on ***ifarrar@penkethhigh.org*** and I will only be too happy to assist in any way I can

Kind Regards

Ian Farrar

Vice Principal - Curriculum and Progress

ART

Current Learning

Quick Task

1	Dot Painting	A technique using small dots to create patterns and images.	Fill a small shape using only dots. Try to keep the dots similar in size.
2	Symbolism	Using symbols to represent ideas, objects, or stories.	Create three simple symbols that represent things important to you (e.g. home, water, family).
3	Storytelling	Aboriginal art is often used to tell stories.	Draw a simple picture that tells a short story about a journey or event.
4	Earth Colours	Natural colours such as brown, red, yellow, black, and white	Create a small drawing using only earth colours.
5	Pattern	Repeated shapes or lines used to decorate artwork.	Design a repeating pattern using lines, dots, or shapes.
6	Connection to Land	The strong link between Aboriginal people and the land.	Draw a place that is important to you using symbols and patterns.
7	Respect	Showing understanding and care for Aboriginal culture and traditions.	Write two sentences explaining why it is important to respect Aboriginal art and culture.

Prior Learning

Quick Task

8	Identity	The qualities, characteristics, and experiences that define a person or group, often explored in art to express individuality, culture, or belonging.	Task: Draw five objects that represent aspects of your identity (hobbies, culture, favourites).
9	Collage	An art technique that assembles different materials—like paper, fabric, or photos—onto a surface, creating layered textures and new compositions.	Task: Create a mini collage from scrap paper, magazines, or wrappers.
10	Doodle	A spontaneous, often simple drawing made without much conscious thought, usually playful, repetitive, and expressive.	Task: Spend 10 minutes doodling freely across a page without lifting your pencil.
11	Personality	The unique combination of traits, emotions, and behaviours that makes someone distinct, often reflected in artwork through style, subject, or symbolism.	Task: Draw a self-portrait that exaggerates your personality (e.g., bold lines for confidence, soft colours for calmness).
12	Drawing	The act of creating marks on a surface using tools like pencils, pens, or charcoal to represent ideas, objects, or feelings visually.	Task: Create a quick line sketch of an everyday object (like your shoe) without erasing mistakes.
13	Tone	The range of lightness or darkness in artwork, used to create contrast, depth, and highlight form through shading techniques.	Task: Shade a simple sphere with pencil, showing light to dark gradients.
14	Detail	Small, precise features that add accuracy, character, or realism to an artwork by focusing on fine elements.	Task: Draw a close-up of your hand, adding wrinkles, nails, and lines.
15	Pattern	A repeated decorative design using shapes, colours, or lines that creates rhythm, structure, or visual interest in an artwork.	Task: Fill a page with a repeated geometric or organic pattern.

COMPUTER SCIENCE

Current Learning

1	Cyber attack	An attack on an organisation that tries to access their systems to steal large quantities of data.
2	Malware	Malicious software is intended to cause damage to files and systems.
3	Encryption	Converts information using a public encryption key into a meaningless form that cannot be read if intercepted.
4	Social engineering	The art of exploiting human psychology, rather than technical hacking techniques, to gain access to buildings, systems or data
5	Hacking	A term used to describe illegal access of computer systems by unauthorised users.
6	Personal data	Any data /information relating to an individual that can allow them to be identified e.g. first name, date of birth.
7	Firewall	Controls the transmission of data between a computer and other network computers on the Internet
8	Software	a set of instructions, data or programs used to operate computers and execute specific tasks. For example, email software like Outlook.

Prior Learning

9	Computer System	A computer system takes a set of digital inputs, processes them and creates a set of outputs.
10	Embedded System	This is a control device that is built into a larger piece of equipment and do one specific job. Examples include SAT NAV, washing machine and traffic lights.
11	CPU	Central processing unit also known as a microprocessor, is the 'brain' at the core of any computer system
12	Input	Information or data needs into the system from input devices such as keyboards, mice, cameras, or sensors.
13	Process	The information collected needs to be processed and actions need to be carried out. E.g. carry out calculations.
14	Output	Once processed the result is presented by an output device such as a monitor or speaker or printer.
15	Hardware	Physical components of a computer system e.g. monitor, keyboard, mouse, CPU
16	Software	a set of instructions, data or programs used to operate computers and execute specific tasks. For example, email software like Outlook.

DRAMA

Current Learning

1	What is genre?	The theme / type of play.
2	What does comedy aim to do?	Theatre to make people laugh. A stop in the scene or in a line of text.
3	What does action aim to do?	Theatre to make the audience feel excited.
4	What does drama aim to do?	Theatre to make the audience feel sad.
5	What does horror aim to do?	Theatre to make the audience feel scared.
6	What is a stereotype?	A label given to a group of people that categorises them, this is not necessarily true.
7	What does it mean to exaggerate?	To be over the top and bigger with your physical and vocal skills.
8	Why does exaggeration create comedy?	Because the characters are over the top and larger than life.
9	What does to analyse mean when we feedback?	To consider what the purpose of the choices in the play made were, what are they showing to the audience.
10	Proxemics	The space or distance between characters to show their relationship.

Prior Learning

11	What is physical theatre?	Representing a story, emotion, event or idea using your body and movement to tell the story.
12	What is dramatic irony?	Where the audience know something that the characters don't.
13	What is facial expression?	Using your face to express emotion.
14	What is a gesture?	A small movement or actions that communicates a meaning to the audience.
15	What does represent mean?	To show something in your performance, e.g. if you walk away from someone, you represent that you don't want to be near them.

DESIGN TECHNOLOGY

Current Learning

1	What is acrylic?	Acrylic is a transparent plastic material with outstanding strength, stiffness, and optical clarity
2	What is a LED?	Paper covered with powdered glass, used for smoothing and polishing
3	What is a client?	A client is a person or organization using the services of a professional person or company
4	What are design ideas?	Realization of a concept or idea into a drawing that for fills what you set out to achieve.
5	What is soldering?	Soldering is a process that joins two or more types of metals through melting solder
6	What does Quality assurance mean?	The maintenance of a desired level of quality in a product, actions or steps taken to ensure a high quality outcome.
7	What is an Interference fit?	A fit between two parts in which the external dimension of one part slightly exceeds the internal dimension of the part into which it has to fit.
8	What does Ecco friendly?	ImPLY means Earth-friendly, being eco-friendly means being 'designed to have little or no damaging effect on the environment
9	What is Malleable?	A substance that is malleable is soft and can easily be made into different shapes
10	What does assemble mean?	To fit together the separate component parts of a machine or other object.

Prior Learning

11	What is a final design?	A Final design is a drawing that has been developed or selected from previous design ideas that might get made into a real item.
12	What is a vice? What do we use it for?	A vice is a mechanical piece of apparatus used to secure an object; it allows work to be performed on it.
13	What does CAD stand for?	Computer Aided Design
14	What is a laser cutter?	Laser cutting is a precise method of cutting a design from a given material using a CAD file to guide it, this is a CAM device.
15	What is CAM?	Computer Aided Manufacture

ENGLISH

Current Learning

1	Acts	Large sections of a play, typically divided into several parts. Each act can have one or more scenes.
2	Scenes	Smaller divisions within an act, usually marking a change in location, time, or characters present.
3	Stage Directions	Instructions in the script that tell actors where to move, how to speak lines (e.g., tone, volume), and how to interact with other characters. These are often written in italics or brackets.
4	Characters	The people or beings who take part in the action of the play. They are typically introduced in the cast list at the start of the play.
5	Dialogue	The spoken lines of the characters in the play. This is the primary form of communication between characters.
6	Monologue	A long speech delivered by one character, often revealing their thoughts, emotions, or perspectives. It can be spoken to another character or as a soliloquy.
7	Soliloquy	A type of monologue where a character speaks their thoughts aloud, often while alone on stage. It gives insight into their inner feelings or plans.
8	Foreshadowing	Hints or clues in the play that suggest what will happen later in the story. It builds suspense or prepares the audience for future events.
9	Set	The physical environment where the action of the play takes place, including furniture, backdrops, and other visual elements.
10	Malorie Blackman	The famous author of the 'Noughts and Crosses' novel.

Prior Learning

11	Rhetoric	Understanding the elements of rhetoric: Logos, pathos, ethos
12	Audience	Understanding your audience helps you choose the right language, tone, and style to persuade them effectively.
13	Purpose	This could be to inform, persuade, argue, or entertain. Clear purpose shapes your message.
14	Rhetorical devices	Techniques used to persuade and engage. These include repetition, rhetorical questions, alliteration, and figurative language.
15	DAFOREST	Helpful acronym to help with persuasive writing.
16	Powerful speakers	Analyse figures like Martin Luther King Jr. or Greta Thunberg to learn how they inspire and influence others.
17	Anecdote	A short personal story used to persuade. Anecdotes make arguments relatable and emotional, drawing the audience in.
18	Expert opinions	Quoting knowledgeable individuals. Using experts adds credibility and strengthens your argument.
19	Advertising	Advertisements rely on language, images, and emotional appeal to influence customers.
20	Customer manipulation	This can include emotional triggers, scarcity tactics, or creating a sense of urgency to make customers act.

FOOD TECHNOLOGY

Current Learning

1	Food miles	measure the distance food travels from where it's grown or made to the person's plate
2	Carbon footprint	a measure of the amount of carbon dioxide released into the atmosphere as a result of the activities of humans.
3	Sustainable	using natural resources in a way that we could keep doing for a long time. We can be more sustainable by reducing our use of natural resources.
4	Agriculture	both growing and harvesting crops and raising animals, or livestock.
5	Emissions	is something that's been released or emitted into the world. Car exhaust, burps, and radio broadcasts are all examples of emissions.
6	Greenhouse gas	gases in the earth's atmosphere that trap heat.
7	Methane	Greenhouse gas produced by human activities like farming.
8	Synthetic	Made in a chemical process and isn't found naturally on earth eg synthetic rubber or plastic
9	Fertiliser	A substance (such as animal manure or an artificial chemical, particularly one that contains nitrogen, phosphorus, and potassium) that is added to soil to increase its productivity for crops.

Prior Learning

10	Low biological value protein (LBV)	Low biological value (LBV) proteins are missing one or more of the essential amino acids we need.
11	High biological protein (HBV)	High Biological value (HBV) proteins contain all the 10 essential amino acids. Functions in the body.
12	Amino Acids	Amino acids are molecules that combine to form proteins. Amino acids and proteins are the building blocks of life
13	Deficiency	a lack or shortage
14	Protein deficiency (Kwashiorkor)	Kwashiorkor is a disease marked by severe protein malnutrition and bilateral extremity swelling. It usually affects infants and children, most often around the age of weaning through age 5. The disease is seen in very severe cases of starvation and poverty-stricken regions worldwide

GEOGRAPHY

Current Learning

1	How many continents does Russia span across?	2 Europe and Asia
2	What is the capital of Russia?	Moscow
3	How many time zones does Russia span across?	11 time zones
4	How many rivers does Russia have?	Approximately 100,000
5	What % of the world's water does Lake Baikal hold?	20%
6	What is the population of Russia?	144 million
7	What % of Russia's exports are oil and gas?	70%
8	How much does tourism contribute to Russia's GDP?	5%
9	What is population density?	The number of people who live within 1 km ² .
10	What is population distribution?	How many people are spread out over an area.

Prior Learning

11	What is deposition?	When material being transported (carried) by the glacier is dropped. This happens when the glacier retreats.
12	What is moraine?	Glacial till which has been deposited by a melting glacier
13	Where is terminal moraine found?	At the front of a glacier
14	Where is lateral moraine found?	Along the side of glacier
15	Where is ground moraine found?	At the base of a glacier
16	What is an erratic?	A large stray rock which has been deposited by a glacier.
17	What are drumlins?	Low hills, shaped like the back of a spoon created by a glacier flowing over deposited material

HISTORY

Current Learning

1	What did Hitler regard Jewish people as within the National Community?	Corruption
2	What was the imaginary “ideal race” that Hitler believed the Germans represented?	The Aryan race
3	From what category of jobs were Jews excluded when the Nazis came to power in 1933?	Civil service jobs
4	What laws restricted citizenship to ethnic Germans, and forbade marriage and sexual relations between Germans and Jews?	The Nuremberg Laws
5	What additional names were all Jewish people required to take from 1938?	‘Israel’ and ‘Sarah’
6	What pogrom occurred on the night of 9 November 1938?	Kristallnacht
7	How many Jewish people were taken to concentration camps following this pogrom?	Around 20 000
8	What other groups of people also faced persecution under the Nazis?	Roma (gypsies), the mentally ill, the disabled, LGBT people, alcoholics, beggars
9	Who were the victims of the Nazis’ first organised murder program?	Mental asylum patients
10	What were parents of disabled children encouraged to do?	Admit them to special treatment wards

Prior Learning

11	Who was the German foreign minister that became a leading politician in the 1920s, helping secure economic recovery?	Blitzkrieg
12	What was the name of the 1924 economic plan to temporarily reduce reparations and provide Germany with loans from the USA?	Denmark, Norway, the Netherlands, Belgium, France, Yugoslavia, and Greece
13	What term is used by conservative Germans to describe the culture of Weimar Germany and the decline in traditional moral values?	6 Weeks
14	What disaster led to the price of shares in major US companies dropping in October 1929?	Dunkirk
15	How many German workers were unemployed by January 1933?	Battle of El Alamein
16	What was the name of the German parliament, that the Nazis began campaigning for seats in?	Operation Barbarossa
17	Who did Hitler blame German economic problems on?	Blitzkrieg ineffective over great distances, and troops unprepared for winter
18	What percentage of votes did the Nazi party gain in the July 1932 election?	Moscow
19	Who was the President of the Weimar Republic who appointed Hitler as Chancellor of the government?	More than half
20	When did Hitler finally become Chancellor?	10 million

MFL

Current Learning

1	Un salón	A living room
2	Mi mejor amigo/a	My best friend
3	hay	There is
4	responsable	Responsible
5	De vez en cuando	From time to time
6	Mi primo/a	My cousin
7	Enojado/a	Angry
8	Usa Facebook	He/she uses Facebook
9	Dos plantas	Two floors
10	Por otro lado	On the other hand

Prior Learning

11	Ocho habitaciones	Eight rooms
12	A veces	Sometimes
13	Tres dormitorios	3 bedrooms
14	Un portátil	A laptop
15	Uso Snapchat	I use Snapchat
16	Mi hermana mayor	My older sister
17	Un móvil	A mobile
18	Escuché la música	I listened to music
19	Mi hermano menor	My younger brother
20	Sin embargo	However

MUSIC

Current Learning

1	Silent Movie	Film with no accompanying music or spoken dialogue.
2	Leitmotif	A short phrase of music associated with a character, object or place
3	Diegetic Sound	Music that happens within the film world e.g. the characters of the film hear this
4	Non-Diegetic Sound	Music which doesn't belong in the film world e.g. the characters cannot hear this
5	Foley	Sound effects created by professional sound effects specialists
6	Underscore	Music that is played quietly in the background of a scene
7	Soundtrack	Music that is played during a film
8	Loop	A repeated, pre-recorded section of music
9	Ambient	Environmental sounds that create the feeling of being in a certain place
10	Triplets	A group of 3 evenly spaced notes played in the duration of 2 standard notes of the same value

Prior Learning

11	Signal	Musical phase use to signify a change in section
12	Call and Response	Question and answer musical devices
13	Improvisation	Making up a music rhythm or phrase
14	Crescendo	Gradually getting louder
15	Diminuendo	Gradually getting quieter

RELIGIOUS EDUCATION

Current Learning

1	Anti-Semitism	Hostility or prejudice to Jewish people.
2	Atonement	Making things better after sinning, asking for forgiveness from God.
3	Banality of Evil	Evil that can result from thoughtless behaviour, normal, common, and dull, not sadistic, evil actions.
4	Dignity	To treat someone with honour and respect.
5	Evil	That which is considered to be extremely immoral, wicked and wrong.
6	Free Will	The ability to choose between right and wrong for yourself. To follow your own path.
7	Moral Evil	It is manmade: it is evil created on purpose by humanity and often leads to suffering.
8	Natural Evil	Evil caused by nature; humans, have very little control over it and it does not discriminate.
9	Sin	Any thought or action which goes against God's will.

Prior Learning

10	Discrimination	To act differently towards or against someone or a group on the basis of prejudice.
11	Equality	The state of being equal, especially in status, rights, or opportunities.
12	Prejudice	Believing some individuals or groups are inferior or superior without even knowing them, forming an unreasonable opinion without evidence for it.
13	Social Injustice	The wrongful actions against individuals within society.
14	Social Justice	Means ensuring there is equal distribution of wealth, opportunities, and privileges in society.

SCIENCE

Current Learning

1	Velocity	The speed of an object in a given direction.
2	Vector Quantity	A quantity that has both magnitude (size) and an associated direction. Example: velocity.
3	Scalar Quantity	A quantity that has magnitude (size) but no associated direction. Example: speed.
4	Displacement	The distance moved in a straight line, in a given direction, from the starting point.
5	Distance-Time Graph	A graph used to represent a journey with distance travelled on the y-axis and time on the x-axis.
6	Stationary	A word used to describe an object that is not moving.
7	Gradient	A measure of the slope of a line. The greater the gradient, the steeper the slope.
8	Relative Motion	A way of describing an object's motion relative to another object's motion.
9	Misconception	A commonly believed idea or fact that is incorrect.
10	Moment	The turning effect of a force which is created by a force acting around a pivot.

Prior Learning

11	Acid	A substance that releases hydrogen ions (H^+) in solution and has a pH less than 7.
12	Alkali	A substance that releases hydroxide ions (OH^-) in solution and has a pH greater than 7.
13	Neutralisation	A chemical reaction in which an acid and an alkali react to form water and a salt.
14	Salt	A compound formed when the hydrogen ion of an acid is replaced by a metal ion or another positive ion.
15	pH Scale	A scale from 0 to 14 used to measure the acidity or alkalinity of a solution.
16	Indicator	A substance that changes color to show the pH level of a solution, indicating if it's acidic or alkaline.
17	Base	A substance that can neutralize an acid, often forming a salt and water.
18	Reaction Rate	The speed at which a chemical reaction occurs, influenced by factors like temperature and concentration.
19	Catalyst	A substance that increases the rate of a chemical reaction without being used up in the reaction.
20	Precipitate	An insoluble solid that forms when two solutions are mixed in a chemical reaction.