

YEAR 9



Home Learning

Monday 15th September 2025



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 with a quiz issued on TEAMS every Friday B 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 initiative allows you, as 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



ART

Current Learning

1	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).
2	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.
3	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.
4	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).
5	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.
6	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.
7	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.
8	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.

Prior Learning

10	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.
11	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.
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	Pop Art	An art movement from the 1950s–60s that used bold colours, repetition, and imagery from popular culture, advertising, and comic books. Task: Draw a food item in the style of Pop Art using bright, flat colours.
14	Typography	The art and technique of arranging letters, words, and typefaces to make written language visually engaging, expressive, and effective in design or artwork. Task: Write your name in a creative typography style (e.g., graffiti, block letters, curly script) that reflects your personality.
15	Colour	An element of art produced when light reflects off objects, used to create mood, contrast, emphasis, harmony, or symbolism in artworks. Task: Create a colour wheel using coloured pencils, blending the primaries to make secondaries.



COMPUTER SCIENCE

COMPUTER SCIENCE

Current Learning

1	Computer System	A computer system takes a set of digital inputs, processes them and creates a set of outputs.
2	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.
3	CPU	Central processing unit also known as a microprocessor, is the 'brain' at the core of any computer system
4	Input	Information or data needs into the system from input devices such as keyboards, mice, cameras, or sensors.
5	Process	The information collected needs to be processed and actions need to be carried out. E.g. carry out calculations.
6	Output	Once processed the result is presented by an output device such as a monitor or speaker or printer.
7	Hardware	Physical components of a computer system e.g. monitor, keyboard, mouse, CPU
8	Software	a set of instructions, data or programs used to operate computers and execute specific tasks. For example, email software like Outlook.

DRAMA



DRAMA

Current Learning

1	What is a physical skill?	Something you change about yourself that the audience can see.
2	What does it mean to represent something?	Where you show something to the audience, sometimes in a different way.
3	What is physical theatre?	Representing a story, emotion, event or idea using your body and movement to tell the story.
4	Who are Frantic Assembly?	A physical theatre company.
5	Shift Stop	Taking control of someone else, e.g. hands on a partners shoulders and moving them and stopping them in a new space.
6	Through	Moving through the space that someone has created for you.
7	Counter Balance	Using each other and your weight to balance off one another.
8	Through	Moving through the space that someone has created for you.
9	Chair Duet	A sequence of movement by two people that is done on and around chairs.
10	Proxemics	The space or distance between characters to show their relationship.

Prior Learning

11	What is movement?	The way you move in the space as a character.
12	What is a gesture?	A small action to communicate meaning.
13	What is a still image?	A frozen picture or image to highlight an important moment.
14	What is eye contact?	A form of non-verbal communication using your eyes.
15	What is slow motion?	Where you slow down and exaggerate your movement.
16	What is mime?	Where we act out our emotions physically and without speaking.
17	What is devising?	Where we create the characters, lines and stories ourselves.
18	What is cross-cutting?	Where we perform two scenes on stage at the same time.
19	What is a narrative?	The plot and story of the piece.
20	What are levels?	How high or low you are in the space.

A top-down view of a workspace for architectural or engineering design. The background is a large sheet of technical drawing paper (blueprint) with various lines, circles, and handwritten notes. Several rolls of paper are stacked in the upper right corner, some with labels like "ИНСТИТУТ ХАРЬКОВПРОЕКТ". In the upper left, a yellow pencil is visible, along with a small green and white label that includes a barcode and the number "4005401112006". A large, semi-transparent white text overlay is centered on the image. At the bottom, a wooden ruler with a circular protractor is visible, showing measurements in centimeters and millimeters. The ruler has labels like "СПЕКТР" and "Северодонецк".

DESIGN TECHNOLOGY

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?	A machine having one or more flat circular disks faced with abrasive for smoothing wood surfaces
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

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ENGLISH

Current Learning

1	Short Story	Stories which follow a small event that usually involves a 'twist' at the end.
2	A Vendetta	Famous story by Guy du Maupassant surrounding revenge and Italian vendetta.
3	Narrative Arc	The way in which a narrative rises and falls (structurally)
4	Ray Bradbury	'The Godfather of dystopian fiction'
5	Dystopia	A genre which takes natural events and ways of living in society and twists them to reflect a dysfunctional world.
6	Unreliable narrator	A narrator who cannot be trusted through lack of intelligence, reliability or mental processing.
7	Comparison	Comparing one story to another.
8	Juxtaposition	The stark contrast of two elements against each other/
9	Retaliation	Where characters retaliate and respond to difficult events.
10	Revenge	Plotting to return harmful attacks to another.

Prior Learning

11	Narratives	Studying the art of prose through a novel in Year 8.
12	Character development	Understanding how characters act and behave (and why they do this in relation to the story)
13	Societal divide	How sections of society are divided according to status, wealth and culture.
14	Judgement	Making a judgement about other characters based
15	Authorial intent	An authors clear intention and influences behind a piece of writing.

FOOD TECHNOLOGY



FOOD TECHNOLOGY

Current Learning

1	Food miles	Food miles
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



GEOGRAPHY

Current Learning

1	What does interglacial period mean?	Warm period
2	What does glacial period mean?	Cold period
3	What evidence do we have to show climate change is happening?	Ice cores, Tree rings , Sea positions
4	What is measured in ice cores?	Gases- carbon dioxide
5	When was the first temperature measured?	1860
6	When tree rings are thinner what does this indicate?	Colder climate
7	When tree rings are wider what does this indicate?	Warmer climate
8	What are the natural causes of climate change?	<ul style="list-style-type: none">• Orbital theory• Volcanic eruptions• Solar variations
9	What is orbital change?	Changes in the shape of the Earth's orbit. When the Earth is further away from the sun the climate is cooler. A cycle occurs every 100 000 years.
10	What is a sunspot?	A patch on the sun that appears dark. This is much hotter than the surrounding regions.

Prior Learning

10	What seas does Africa border?	The Mediterranean Sea. The Atlantic Ocean is to the west and the Indian Ocean is to the east
11	How big is Africa compared to other continents?	Africa is the second-largest continent in the world
12	How many km ² does Africa cover?	30.3 million km ²
13	What are the physical features of Africa	<ul style="list-style-type: none">• Africa stretches from 38° N to 34° S• There are many different climate zones and ecosystems• Three large deserts are located within Africa (Sahara, Kalahari and Namib Deserts)
14	How many physical regions are there in Africa	Eight major physical regions

HISTORY



HISTORY

Current Learning

1	What was the name of the survey that first mentioned Warrington, and how many houses did it record?	The Domesday Book; Eight houses
2	What important building did Matthew de Villars construct in Warrington?	A stone church
3	What did Warrington receive that gave it control over taxes, tolls, and laws?	A Charter
4	What weekly event helped Warrington grow, and on which days was it held?	A market, held on Fridays and later also on Wednesdays
5	What major construction in 1289 increased Warrington's wealth but angered the Boydell family?	A bridge across the River Mersey
6	Which area of Warrington was hit hard by the Black Death in 1361, and what farming change followed?	Culcheth; the Boteler family switched to sheep farming
7	Which monarch visited Warrington in 1495, and which family hosted him?	Henry VII; the Boteler family
8	How are the Boteler family remembered on Warrington's coat of arms?	By an armed unicorn
9	What religion did Warrington largely remain loyal to after the Reformation?	Catholic
10	Who supported Oliver Cromwell in his fight against the Royalists in Warrington during the Civil War?	The people of Warrington

MFL

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MFL

Current Learning

1	En el futuro	in the future
2	abogado/a	lawyer
3	pienso que mi escuela primaria es mejor	I think my primary school is better
4	no había deberes	there wasn't any homework
5	Prefiero las telenovelas	I prefer soaps
6	los documentales	documentaries
7	Me gusta la música rock	I like rock music
8	porque es pegajoso/a	because it's catchy
9	Mi profesor de matemáticas	my male maths teacher
10	se debe escuchar a los profesores	you should listen to the teachers



MUSIC

MUSIC

Current Learning

1	Triad Chord	Three notes played together at the same - notes 1, 3 and 5 of the scale.
2	Primary Chords	Chords 1, 4 and 5
3	Tonic	First note/chord
4	Subdominant	Fourth note/chord
5	Dominant	Fifth note/chord
6	Root position	Chord position that starts on the root note
7	Boogie Woogie	A genre of blues music typically played on the piano which has a repetitive riff in the bass line
8	Treble Clef	Used to show notated music for higher pitched instruments
9	Bass Clef	Used to show notated music for lower pitched instruments
10	Stave	5 lines used to write notation on

Prior Learning

10	Drum kit - Bass drum, Snare, Hi-hat, Toms, Cymbals	Parts of a traditional drum kit
11	Piano Roll	Where MIDI data can be input and edited on logic either using MIDI controller or a mouse.
12	Software instrument	A track type used to provide sound for MIDI data.
13	Reverb	Effect used to give impression of a bigger space
14	Quantise	Moving notes that have been performed out of time, to the nearest beat, meaning any errors can be quickly fixed for large sections.

RELIGIOUS EDUCATION



RELIGIOUS EDUCATION

Current Learning

1	Ableism	Discrimination or social prejudice against people with disabilities.
2	Ageism	Prejudice or discrimination on the grounds of a person's age.
3	Anti-Semitism	Hostility or prejudice to Jewish people.
4	Discrimination	To act differently towards or against someone or a group on the basis of prejudice.
5	Homophobia	An extreme dislike/fear of homosexuality and homosexual people.
6	Islamophobia	Dislike of or prejudice against Islam or Muslims, especially as a political force.
7	Prejudice	Believing some individuals or groups are inferior or superior without even knowing them, forming an unreasonable opinion without evidence for it.
8	Racism	Prejudice or discrimination directed against someone of a different race or ethnicity.
9	Sexism	Prejudice, stereotyping, or discrimination, typically against women, on the basis of sex or gender.

Prior Learning

10	Caste	Any of the social groups in traditional Hindu society. Each caste has its own role, privileges, and limitations, based on family grouping and birth.
11	Equality	The belief that all humans are equal.
12	Karma	The forces that influence people's fortune and future rebirth.
13	Reincarnation	The religious belief that the soul or spirit, after death, begins a new life in a new body that may be human, animal or spiritual depending on the moral quality of the previous life's actions.
14	Sikhism	A monotheistic religion, that originated in India about 550 years ago.



SCIENCE

SCIENCE

Current Learning

1	Atmosphere	A thin layer of gases including nitrogen, oxygen, and carbon dioxide that surrounds the Earth.
2	Renewable Energy	Energy resources that will not run out, as they are constantly replenished.
3	Carbon Cycle	A model describing the movement of carbon between the atmosphere, organisms, oceans, etc.
4	Combustion	A reaction where fuel burns in oxygen to release energy (exothermic).
5	Climate Change	Changes to Earth's average temperature over time.
6	Global Warming	The gradual increase in the Earth's average surface temperature.
7	Greenhouse Gas	Gases, like carbon dioxide and methane, that trap thermal energy in the atmosphere.
8	Fossil Fuel	Fuels formed from dead organisms over millions of years, such as coal and oil.
9	Wind Turbine	A device that converts kinetic energy from wind into electrical energy.
10	Watt	The unit of power, symbol W, equal to one joule of energy transferred per second.

Prior Learning

11	What term describes igneous rocks that form when magma cools and solidifies beneath the Earth's surface?	Intrusive
12	What term describes igneous rocks that form when lava cools and solidifies on the Earth's surface?	Extrusive
13	What type of rock forms from the cooling and solidification of molten material (magma or lava)?	Igneous
14	What type of rock is formed from the accumulation and compaction of sediments, such as sand, mud, and minerals?	Sedimentary
15	What type of rock has been changed from its original form by high pressure, temperature, or chemical processes?	Metamorphic
16	What is the process by which rocks are broken down into smaller pieces due to factors like wind, water, or biological activity?	Weathering
17	What is the term for the remains or impression of a prehistoric organism preserved in rock?	Fossil
18	What term describes the surroundings or conditions in which an organism lives, including natural elements like air, water, and land?	Environment
19	What is a large molecule composed of repeating structural units, often derived from natural or synthetic sources (e.g., plastics)?	Polymer
20	What term describes something that has limits or boundaries and is not infinite or unlimited?	Finite