YEAR 9

Home Learning

05 / 10 / 26

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	Collage	A technique where different materials (paper, images, textures) are cut and arranged to create an artwork.	Create a small collage using cut and glued materials (e.g. magazines, coloured paper). Arrange them to make an interesting composition.
9	Monoprint	A printing technique where a single unique print is created from a surface.	Create a simple monoprint by drawing onto a surface (e.g. plastic sheet) and pressing it onto paper to transfer the image.
10	Oil Pastel Resist	A technique where oil pastel resists paint or ink to create contrast.	Draw a design using oil pastels, then paint over it with a wash to reveal the resist effect.
11	Abstract Art	Contemporary art often explores ideas using shapes, colours, and textures instead of realistic images.	Create an abstract drawing using shapes, lines, and patterns to express a mood or feeling.
12	Mixed Media	Using more than one material or technique in a single artwork.	Create a small artwork combining at least two techniques (e.g. collage and drawing, or pastel and print).
13	Personal Expression	Contemporary artists often explore personal ideas, identity, or experiences.	Create an artwork that shows something about you (your interests, feelings, or experiences).
14	Experimentation	Trying out different materials, techniques, and ideas to discover new effects.	Create a page of small experiments, testing different techniques (e.g. mark-making, textures, layering) and label what you tried.
15	Still Life	Drawing everyday objects arranged in a composition. Contemporary artists may explore unusual angles or styles.	Draw a simple still life of objects at home (e.g. fruit, shoes, or stationery) using line and shading.

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.

Prior Learning		
11	Cyber attack	An attack on an organisation that tries to access their systems to steal large quantities of data
12	Malware	Malicious software is intended to cause damage to files and systems
13	Encryption	Converts information using a public encryption key into a meaningless form that cannot be read if intercepted
14	Social engineering	The art of exploiting human psychology, rather than technical hacking techniques, to gain access to buildings, systems or data
15	Hacking	A term used to describe illegal access of computer systems by unauthorised users
16	Personal data	Any data /information relating to an individual that can allow them to be identified e.g. first name, date of birth
17	Firewall	Controls the transmission of data between a computer and other network computers on the Internet

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.

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 organisation 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	Subversion of domestic events	This story subverts the simple understanding of a 'lottery'
2	Juxtaposition	The story juxtaposes families and characters to create a sense of distrust and dishonour.
3	Presentation of communities	The community in the story form together for the ritualistic event.
4	Setting and atmosphere	Shirley Jackson develops a calming, yet uncomfortable, setting to lull readers into a sense of insecurity.
5	Conformity	Each adult and child conforms to the unspoken rules of the lottery
6	Foreshadowing	Events hinting and leading to others later in the story.
7	Morality	A sense of right and wrong.
8	Rituals	A repeated action within a certain culture that is rarely broken deriving from religion.
9	Narrative arc	The typical journey through a narrative following the rise and fall in tension and events. See Freytag's pyramid.
10	Writer intention	The reasons why Shirley Jackson wrote this novella and her author intentions behind it.

Prior Learning		
11	Dystopian short stories	The fame behind dystopian short stories and the wonder that follows them
12	Ray Bradbury's fiction	Short exposure to Farenheit 451 and surrounding stories by Bradbury.
13	The subversion of a new born baby	Using the bliss of a newborn baby, and presenting him as a devilish alien from earth, to create uncertainty in the reader.
14	Fractured marriages	Highlighting how the 'newborn' experience can fracture marriages in the worst way.
15	Character flaws	The construction of character flaws and how they materialise through stories. The 'wrong' parts of a character.
16	Narrative arc	The typical journey through a narrative following the rise and fall in tension and events. See Freytag's pyramid.
17	Innoculous	Something harmless and inoffensive.
18	Deviant	A character or person who goes against agreed rules or expectations.
19	Religious allusion	A phrase or story which alludes to the works and stories of religion (not exclusive to one religion alone).
20	What are levels?	How high or low you are in the space.

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		
11	Low biological value protein (LBV)	Low biological value (LBV) proteins are missing one or more of the essential amino acids we need.
12	High biological protein (HBV)	High Biological value (HBV) proteins contain all the 10 essential amino acids. Functions in the body.
13	Amino Acids	Amino acids are molecules that combine to form proteins. Amino acids and proteins are the building blocks of life
14	Deficiency	a lack or shortage
15	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	What are greenhouse gases?	Carbon dioxide (CO_2), methane, and nitrous oxide.
2	What are the sources of carbon dioxide?	Industry, transport, burning fossil fuels.
3	What are the sources of methane?	Agriculture (cows), rice farming, waste.
4	What is the enhanced greenhouse effect?	This is a range of different activities that humans do to add to the greenhouse gas effect.
5	What is the largest sector that contributes to greenhouse gas emission?	Electric power stations.
6	What are the environmental effects of climate change?	• Melting ice sheets • Rising sea levels • Ocean warming
7	What are the human effects of climate change?	• Droughts • Clean water availability • Flooding
8	What % of coral has been lost between 1985 and 2012?	50.70%
9	What is a drought?	A prolonged period of low rainfall, leading to a shortage of water.
10	What areas is a risk from coastal flooding?	Maldives and the Netherlands.

Prior Learning		
11	What does interglacial period mean?	Warm period
12	What does glacial period mean?	Cold period
13	What evidence do we have to show climate change is happening?	• Ice cores • Tree rings • Sea positions
14	What is measured in ice cores?	Gases such as carbon dioxide
15	When was the first temperature measured?	1860

HISTORY

Current Learning		
1	Who made a speech in Warrington to try and gain support for female suffrage?	Emmeline Pankhurst
2	What was made in Warrington during the First World War?	Barbed Wire
3	Who was Burtonwood handed over to in 1942?	Americans
4	How many airplanes were assembled a week at Burtonwood by 1944?	269
5	When was the Warrington bombing?	20th March 1993
6	What was created by families of the victims of the Warrington bombing?	Peace Centre
7	What is Warrington's population today?	209000
8	What intersect (cross) at Warrington?	Motorways
9	Which company chose to build their first UK store in Warrington?	Ikea
10	How has Warrington become a more multicultural town in the 21st century?	Cultural diversity is reflected in community events, Schools welcome students from many different cultures, Local organisations and the town council promote inclusion

Prior Learning		
11	When did the Warrington Academy open?	1757
12	Who was the famous student/teacher from Warrington Academy?	Joseph Priestley
13	What was the name of the big changes that were happening in Britain in the Eighteenth century?	Industrial Revolution
14	What was an important method of transport that allowed for hundreds of thousands of pounds of goods to be transported to Warrington?	Canals
15	What were the three industries that grew in Warrington?	Wires, clocks and sails.
16	Which city was an important port of call for slave ships and was home to many wealthy slave traders?	Liverpool
17	Which goods linked to the slave trade helped Warrington gain money?	Sugar and Copper
18	What was the Ryland's family business?	Warrington Wire Iron Works
19	What disease was casing deaths in Warrington in the nineteenth century due to unhygienic conditions?	Cholera
20	What did Charles Dodgson/Lewis Carroll write?	Alice's Adventures in Wonderland

MFL

Current Learning		
1	le mardi	on Tuesday
2	à treize heures	at 1pm
3	les maths	maths
4	heureusement	fortunately
5	la bibliothèque	the library
6	les informations	the news
7	nous avons regardé	we watched
8	car c'est entraînant	because it is catchy
9	la semaine dernière	last week
10	il n'y avait pas de devoirs	there was no homework

Prior Learning		
11	chaque jour	each day
12	j'étudie	I study
13	la géographie	geography
14	c'est propre	it is clean
15	il n'y a pas de piscine	there is no swimming pool
16	je préfère	I prefer
17	les feuilletons	soap operas
18	la musique rock	rock music
19	hier soir	last night
20	c'était plus petit	it was smaller

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		
11	Drum kit – Bass drum, Snare, Hi-hat, Toms, Cymbals	Parts of a traditional drum kit
12	Piano Roll	Where MIDI data can be input and edited on logic either using MIDI controller or a mouse.
13	Software instrument	A track type used to provide sound for MIDI data.
14	Reverb	Effect used to give impression of a bigger space
15	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

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		
11	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.
12	Equality	The belief that all humans are equal.
13	Karma	The forces that influence people's fortune and future rebirth.
14	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.
15	Sikhism	A monotheistic religion, that originated in India about 550years ago.

SCIENCE

Current Learning		
1	Carbohydrate	Compounds of carbon, hydrogen, and oxygen that provide the body with energy.
2	Benedict's Solution	A blue chemical reagent used to test for the presence of simple carbohydrates (sugars).
3	Glucose	A simple carbohydrate that releases energy during cellular respiration.
4	Vitamin	Nutrients required in small amounts for body function, e.g., Vitamin C.
5	Mineral	Nutrients required in small amounts, e.g., iron or calcium.
6	Anaemia	A condition caused by a lack of iron, leading to pale skin and low energy.
7	Diabetes	A condition where the body cannot correctly control blood sugar levels.
8	Digestive Enzyme	A biological molecule that speeds up digestion.
9	Reagent	A chemical which is used to test for another chemical.

Prior Learning		
10	Airplanes fly through the layer of gases made mostly of nitrogen and oxygen that surrounds Earth. What is this layer called?	Atmosphere
11	A school installs solar panels that continue to provide energy as long as the Sun is shining. What type of energy resource is this?	Renewable Energy
12	Animals breathe out carbon dioxide, and plants use it during photosynthesis. Which model explains how carbon moves between the atmosphere, organisms, and oceans?	Carbon Cycle
13	When coal is burned in a power station, it reacts with oxygen and releases heat energy. What is this type of reaction called?	Combustion
14	Rising global temperatures have caused melting ice caps and shifting weather patterns. What term describes these long-term changes in Earth's average climate?	Climate Change
15	Records show Earth's average surface temperature has been slowly increasing over the last century. What is this gradual rise called?	Global Warming
16	Methane released from cattle and carbon dioxide from cars trap heat in Earth's atmosphere. What are these heat-trapping gases called?	Greenhouse Gases
17	Coal, oil, and natural gas were formed from the remains of ancient plants and animals over millions of years. What do we call these energy sources?	Fossil Fuels
18	On a windy day, large blades spin and generate electricity. What is the name of this device that converts wind's kinetic energy into electrical energy?	Wind Turbine
19	A lightbulb uses one joule of energy every second. Which unit, measured in joules per second, is used to describe this power?	Watt
20	What term describes something that has limits or boundaries and is not infinite or unlimited?	Finite