

YEAR 8

Home Learning



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 - Progress and Outcomes

ART



Current Learning

1	Composition	A formal element in art. The placement and arrangement of your artwork and how shapes relate within it. i.e., The layout and positioning of your work
2	Contrast	Difference and variety i.e., Dark against light
3	Low relief collage	Bas-relief subtle layers to capture our illustrations and to create a surface to draw on to.
4	Render	Making our bas-relief shapes and details obvious by drawing onto the surface.
5	Definition	To make something "Stand out" and become obvious
6	Depth	Creating 3 dimensions using graduated shading
7	Formal Elements	Formal Elements are parts used to make a piece of artwork. The 8 elements are Line, Form, Shape, Tone, Pattern, Texture, Colour and Composition
8	Proportion	Comparison of size. The relative size of parts of a whole i.e. Are the eyes the right size for the face?
9	Guidelines	Creating a series of lines to draw within so everything is the same size i.e. A title in your sketchbook so you can get all your letters the same size, cardboard construction and layout.

Prior Learning

10	Graduated Shading	Shading with a pencil/ pencil to create depth. Where dark gradually turns into light without any imperfections.
11	Blending	Gently bringing together two or more colours to create the softening of lines i.e., shading blue and yellow together to create blue graduating to green graduating to yellow.
12	Design Illustration	Recording or ideas to show our inspiration from Paolozzi within our own designs.
13	Depth	Creating 3 dimensions using graduated shading
14	Tone	Is an formal element in art and literally means light and dark.


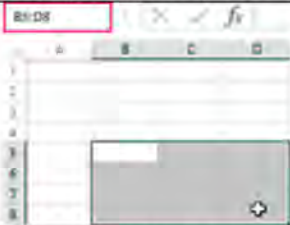
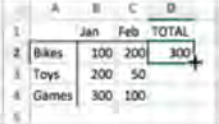
A 3D visualization of a human head and neck, constructed from a dense array of glowing blue dots and lines. The structure is positioned centrally, with the head tilted slightly to the left. The background is a dark, deep blue, featuring a grid of smaller, dimmer blue dots that create a sense of depth and digital space. The overall aesthetic is futuristic and technological.

COMPUTER SCIENCE

Current Learning

1	Binary	This is a digital coding system which uses two values to represent data, 0 and 1.
2	Denary	Base 10 number system. What we use every day 0-9
3	Nibble	The name given to 4 bits or half a byte.
4	Byte	Computer storage space is measured in bytes. A byte is a series of 8 bits. One character on a keyboard is a single byte.
5	Kilobyte	It is generally thought of as 1,000 bytes. However, to be completely correct, it is actually 1,024 bytes
6	Megabyte	It is generally thought of as one million bytes or 1,000 kilobytes. However, to be completely correct, it is actually 1,048,576 bytes or 1,024 kilobytes.
7	Gigabyte	It is equivalent to 1024 Megabytes although you will commonly see it referred to as 1,000 Megabytes.
8	Terabyte	1,000 (1024) Gigabytes.

Prior Learning

1	Spreadsheet	<p>A spreadsheet is a piece of software which is used to carry out calculations.</p> <p>Spreadsheets are very common in business, as they are excellent for handling data such as sales, engineering or financial data.</p>
2	Cell Reference	<p>Each cell in a spreadsheet has an 'address' that describes its position in the worksheet. The address is made of two parts</p>  <p>a) its column position and b) its row position</p> <p>This address is called the 'cell reference'.</p> <p>A typical cell reference for the most top left cell in the workbook is A1 this means its sits along Column A and is also in Row 1</p>
3	Range	<p>This can be one cell or a collection of cells</p> 
4	Formula	<p>A formula is used to do every single calculation in the spreadsheet.</p> <p>A formula can be as simple as adding up two numbers in different cells or it can be as complex as working out a statistical result from millions of pieces of data collected over months. It always starts with =</p>
5	Drag handle	 <p>The handle will appear as a small square in the bottom-right corner of the selected cell. You can drag it to copy formulas</p>
6	Function	<p>A function does a very specific job within a spreadsheet.</p> <p>SUM - will add up at set of numbers COUNTA- counts the number of non-blank cells (not empty) in a cell range MAX- will find the highest value in a set of numbers MIN- will find the lowest value in a set of numbers AVERAGE- will find the average of a set of numbers IF- checks to see if a statement is true or false and then does one of two things depending on the result COUNTIF- will add up numbers only if those numbers meet certain conditions</p>

DRAMA

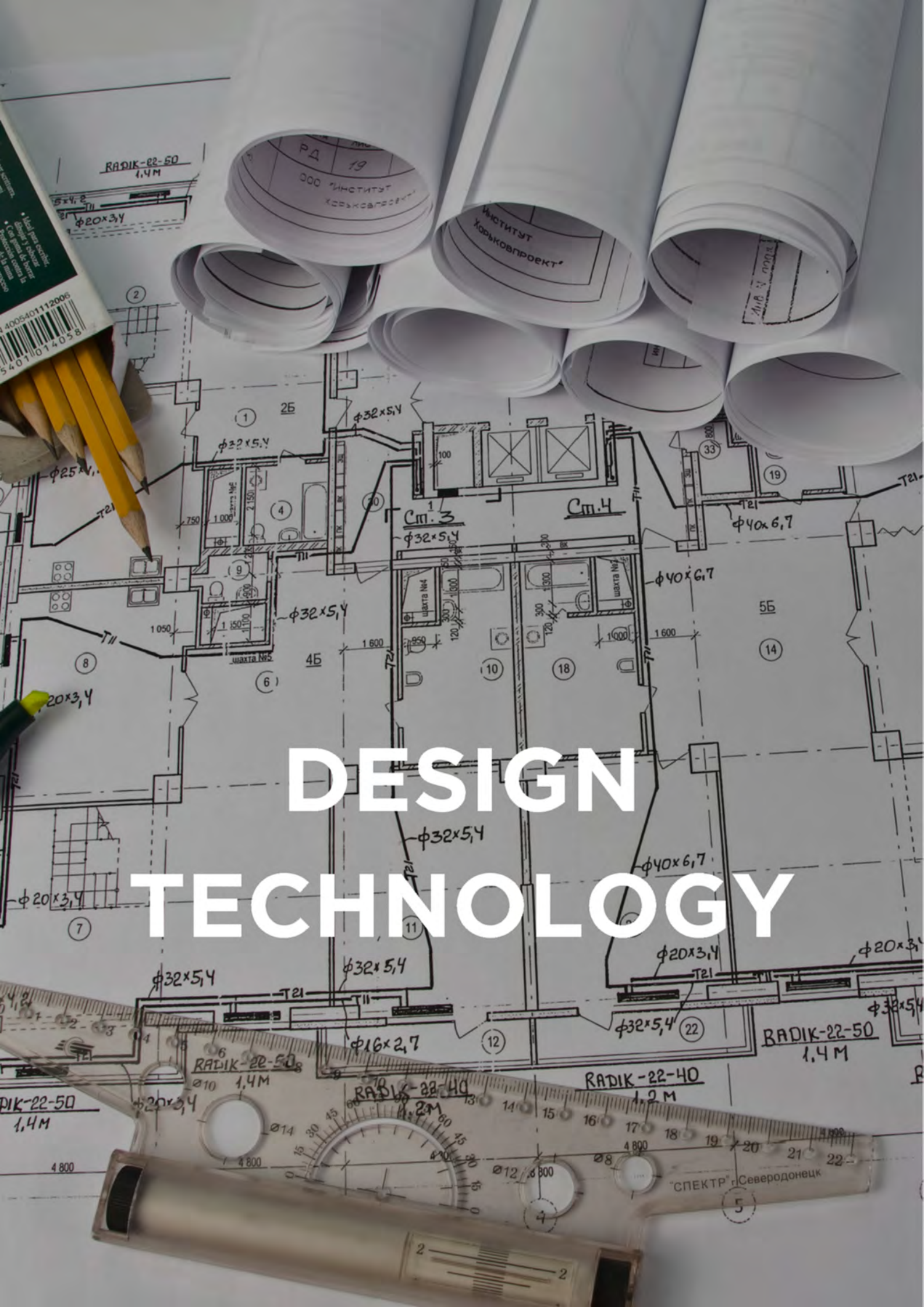


Current Learning

1	What is storytelling?	Where we communicate a narrative to an audience.
2	What does it mean to use movement to tell a story?	Creating a section of movement to represent a story.
3	What does represent mean?	To show something to the audience.
4	What is a still image?	A frozen picture or image.
5	What is mime?	Acting without speaking.
6	What is body-as-prop?	Using yourself and your own body to create the objects, prop and set on stage.
7	Why would we use body-as-prop?	To create a more interesting performance, because you don't have time to change set, and because you may not have access to everything you need.
8	What is slow motion?	Moving at an exaggerated slow pace.
9	Why would we use a still image?	To highlight a key moment.

Prior Learning

10	What is a narrator?	The person who tells a story to add information for the audience.
11	What are levels?	How high or low you are in the space.
12	What is facial expression?	The way you use your face to express emotion.
13	What is posture?	The way you hold your body.
14	What is space?	The distance / space between characters to show their relationships.



DESIGN TECHNOLOGY

RADIK-22-50
1,4 M

РД 19
300 ИНСТИТУТ
ХАРЬКОВПРОЕКТ

ИНСТИТУТ
ХАРЬКОВПРОЕКТ

Лист N 1000

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2

1

2Б

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33

19

См.3

См.4

1050

8

45

1600

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18

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5Б

14

20x3,4

7

$\phi 32 \times 5,4$

$\phi 40 \times 6,7$

$\phi 32 \times 5,4$

$\phi 32 \times 5,4$

$\phi 20 \times 3,4$

$\phi 20 \times 3,4$

RADIK-22-50
1,4 M

RADIK-22-40
1,2 M

RADIK-22-40
1,2 M

RADIK-22-50
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PIK-22-50
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СПЕКТР Северодонецк

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Current Learning

1	What is a wood joint?	Joinery is a part of woodworking that involves joining together pieces of wood or lumber, to produce more complex items
2	What is glass paper?	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 a mitre saw?	A mite saw is a saw used to make accurate crosscuts and mites in a work piece by pulling a large backsaw back and forth across the work to cut at a desired angle.
6	What is a disc sander?	A machine having one or more flat circular disks faced with abrasive for smoothing wood surfaces
7	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
8	What is CAM?	Computer Aided Manufacture
9	What is sand sealer? And what does it do?	A sanding sealer can be used on bare timber products, it protects the timber making it resistant to water and adds a shinney finish
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	Name 3 H/S rules in a DT classroom?	
15	What is an evaluation? And why do we use them?	Designers evaluate their finished products or prototypes to test whether they work well and if the design can be corrected or improved.

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relation
point of
English
language
and the
residence

Current Learning

1	Scythe	A tool used for cutting crops, often represented as a curved blade on a long handle; in the book, it symbolizes death and the role of reaping souls.
2	Dystopia	An imagined society that is undesirable or frightening, often characterized by oppressive societal control and the illusion of a perfect society
3	Immortality	The ability to live forever; in "Scythe," this concept is explored in the context of a world where people do not age or die.
4	Population	The total number of people living in a specific area; the book discusses the implications of controlling population growth.
5	Reaping	The act of harvesting crops; metaphorically used in the book to describe the act of taking lives by Scythes.
6	Controversial	Likely to cause disagreement or controversy; the actions of Scythes and their moral implications are central to the plot.
7	Ethics	The moral principles that govern a person's behaviour or the conducting of an activity; the book raises questions about the ethics of killing in a world of immortality.
8	Apprentice	A person who is learning a trade from a skilled employer; in "Scythe," characters train under experienced Scythes.
9	Legacy	Something handed down from an ancestor or predecessor; the characters in the book consider their legacies in the context of life and death.
10	Governance	The action or manner of governing a state, organization, or people; the book explores the governance of a society without death.

Prior Learning

11	Introduction to Heroes and Villains	Explore the characteristics of heroes and villains in literature and popular culture.
12	Character Creation	Students design their own hero or villain, focusing on backstory, appearance, personality, and motivations.
13	Descriptive Writing Skills	Learning techniques to describe characters vividly using sensory details, figurative language
14	The Hero's Journey	Looking into the famous 'Hero' structure found in many myths.
15	Villainous Motivations	Exploring the reasons behind a villain's actions (e.g., greed, revenge, trauma).
16	World-Building	Focusing on effective worlds and setting descriptions across stories.
17	Editing and Revising	Understanding the importance of editing and revising work.
18	Daedalus and Icarus	The famous tale of an overly-ambitious young man who flew too close to the sun.
19	Scylla	A deadly monster found in the myth linked to the witch 'Circe'
20	Figurative language	Recapping and mastering the understanding and usage of similes, metaphors, personification.

FOOD TECHNOLOGY

A chef in a white uniform is chopping carrots on a green cutting board in a kitchen. The text "FOOD TECHNOLOGY" is overlaid in white. The chef is using a knife to slice the carrots into small, round pieces. There are several whole carrots and some potatoes on the cutting board. A large metal pot is visible on the left side of the frame.

Current Learning

1	Special diet	Diet that has been adapted to the needs of an individual or group
2	pescatarian	person who does not eat meat but does eat fish.
3	Vegetarian	a person who does not eat meat or fish, and sometimes other animal products, especially for moral, religious, or health reasons.
4	vegan	a person who does not eat any food derived from animals and who typically does not use other animal products.
5	Omnivorous	an animal or person feeding on a variety of food of both plant and animal origin.
6	Boiling	the action of bringing a liquid to the temperature at which it bubbles and turns to vapour.
7	Frying	cook (food) in hot fat or oil, typically in a shallow pan.
8	Deep frying	cook (food) in hot fat or oil, typically in a deep pan.
9	Simmering	keep (food) just below boiling point when cooking or heating it

Prior Learning

10	High Risk food	Food poisoning bacteria grow more easily on some foods than others
11	Balanced diet	a healthy balanced diet containing foods from each food group, so they get a wide range of nutrients to help them stay healthy
12	Deficiency	the state of being deficient; lack; incompleteness; insufficiency.
13	Deficiency disease	a disease caused by a lack of one or more essential substances (as a vitamin or mineral) in the diet.
14	Scurvy	Lack of vitamin c

GEOGRAPHY



Current Learning

1	What is a brownfield site?	Land that has been previously built on
2	What is a greenfield site?	Land that has not been previously built on
3	What are the advantages of a brownfield site?	<ul style="list-style-type: none"> • Greater chance of gaining planning permission • Utilities (water) are already in place • There is the potential to retain the old building
4	What are the disadvantages of a brownfield site?	<ul style="list-style-type: none"> • Smaller area makes building more restricted • Potential issues for accessibility of construction vehicles • Clearing the land from previous use can be expensive
5	What are the advantages of a greenfield site?	<ul style="list-style-type: none"> • The land is usually cheaper • Allows expansion of the city easing the pressure on space • Larger area of land increases the potential of construction
6	What are the disadvantages of a greenfield site?	<ul style="list-style-type: none"> • Destruction of natural habitats • Potential increase in noise and air pollution • New utilities are required to be connected
7	What is urban sprawl?	The unplanned growth of a city into the countryside
8	What is a commuter settlement?	Where the residents live in the village but commute every day into the city to work

Prior Learning

9	What is urbanisation?	The increase in % of people living in urban areas, as people move from rural areas.
10	Where did urbanisation first occur?	High income countries
11	What has happened to urban population since 1950?	Rapidly increased
12	What factors affect the rate of urbanisation?	<ul style="list-style-type: none"> • Natural increase • Rural to urban migration
13	What is natural increase?	Birth rate exceeds death rate
14	What is rural to urban migration?	Moving from a rural area (countryside) to an urban area (town/city)
15	What are push factors?	Factors that make you want to move away from an area
16	What are pull factors?	Factors that make you want to move to an area

HISTORY



Current Learning

1	Which Tory aristocrat became a champion for factory reform during the 1830s?	Lord Anthony Ashley Cooper (7th Earl of Shaftsbury)
2	The 1833 Factory Act set what age as the minimum for factory employment?	9 years old
3	What did employers have to provide for child labourers under the age of 13?	Two hours a day of schooling
4	In 1842, women, girls, and boys under the age of 10 were banned from working where?	Coalmines
5	What is an association of workers formed to pursue collective interests called?	Union
6	Which six Dorset farm labourers were transported to Australia in 1834?	Tolpuddle Martyrs
7	What was their supposed crime?	Swearing an oath to join a friendly society
8	What local payment was given to the poor and unemployed since the Tudor Period?	Parish Relief
9	What Victorian institutions were built to provide for the poor and unemployed?	Workhouses
10	What workhouse did a scandal emerge in 1846 over the actions of the workhouse master?	Andover Workhouse

Prior Learning

11	In what sense way did factory work tend to be different to rural work?	More specialised and repetitive
12	How long were the days often worked by labourers in Britain's early factories?	12-14 hours
13	How were employees who broke factory rules often punished?	Docked pay
14	What age, on average, were children sent to work in industrial areas during the early 19th century?	Eight and a half
15	What two jobs did children often carry out in cotton mills?	Scavenger and piecer
16	How were disobedient children punished?	Placed in shackles
17	What was often the consequence of the strain of physical labour on child workers?	Lifelong deformities
18	What name was given to textile weavers who attacked factories and destroyed machines?	Luddites
19	In what year did their first attack on Nottingham stocking frames take place?	1811
20	Who was the mythical leader of the textile weavers that attacked factories?	Ned Ludd/ General Ludd

MFL

AHOJ TER HALLO
iHOLA ER OLA HEJ
HELLO HALLO
MERHABA KUMUSTA
BONJOUR

Current Learning group 1 (15 words)

1	Vivo	I live
2	Vive	He/she lives
3	Vivimos	We live
4	Casa	House
5	Piso	Flat
6	Edificio	Building
7	Pequeño/a	Small
8	Moderno/a	Modern
9	Antiguo/a	Old
10	grande	Big

Prior Learning

11	Mi madre	My mum
12	Mi padre	My dad
13	Tengo	I have
14	Tiene	He/she has
15	es	He/she is



MUSIC

Current Learning

1	Primary Chords	Chords 1, 4 and 5
2	Stave	Five lines used to write staff notation on
3	Treble Clef	Symbol representing higher pitched music, used in notation
4	Bass Clef	Symbol representing lower pitched music, used in notation
5	Tablature	Form of notation for guitar/ukulele using numbers to represent frets and lines for strings.
6	Riff	Memorable section of a song that is usually repeated. Typically played by Guitar/Bass
7	Ensemble	Group of performers
8	Expression	Use of articulation and dynamics in music to improve performance
9	Dynamics	Volume of the music - using this to improve a performance

Prior Learning

10	Style/Genre	The type of music e.g. pop/rap
11	Decade	Period of 10 years
12	Chord	Three notes played together at the same - notes 1, 3 and 5 of the scale.
13	Staff Notation	Traditional music notation using a stave
14	Chord Box	Diagram to display hand position on a guitar/ukulele to make a chord

RELIGIOUS EDUCATION



Current Learning

1	Buddhism	A religion that started in India 2500 years ago, it is now the world's fourth largest religion.
2	Buddha	The awakened or enlightened one.
3	Caste System	A series of social classes that determine someone's job and status in Indian society.
4	Dharma	The Buddhist teachings.
5	Enlightenment	The state of being awakened to the truth about life.
6	Four Sights	Four things seen by Siddhartha when leaving the royal palace - old age, sickness, death and a holy man.
7	Five Precepts	Five rules all Buddhists are expected to follow.
8	Karma	The forces that influence people's fortune and future rebirth
9	Samsara	A continual process of life, death, and rebirth.

Prior Learning

10	Allah	Arabic word for God.
11	Greater jihad	This refers to the duty of every Muslim to live a good life, staying faithful to the beliefs and obeying the commands of Islam.
12	Monotheism	A belief in one God.
13	Muhammad	The final prophet, to whom God revealed messages to, to be shared with people about how they should live their lives.
14	The Five Pillars	These are the main points that support the religion of Islam. Muslims should observe these to help lead a good life. They are five individual acts of worship.



SCIENCE

Current Learning

1	Intrusive	Describes igneous rocks that form when magma cools and solidifies beneath the Earth's surface.
2	Extrusive	Describes igneous rocks that form when lava cools and solidifies on the Earth's surface.
3	Igneous	A type of rock that forms from the cooling and solidification of molten material (magma or lava).
4	Sedimentary	A type of rock formed from the accumulation and compaction of sediments, such as sand, mud, and minerals.
5	Metamorphic	A type of rock that has been changed from its original form by high pressure, temperature, or chemical processes.
6	Weathering	The process by which rocks are broken down into smaller pieces due to factors like wind, water, or biological activity.
7	Fossil	The remains or impression of a prehistoric organism preserved in rock.
8	Environment	The surroundings or conditions in which an organism lives, including natural elements like air, water, and land.
9	Polymer	A large molecule composed of repeating structural units, often derived from natural or synthetic sources (e.g., plastics).
10	Finite	Something that has limits or boundaries; it is not infinite or unlimited.

Prior Learning

12	Classification	The process of placing living organisms into groups based on their structure and characteristics.
13	Organism	A term used to describe any living things such as a human or a bacterium.
14	Classification Key	A series of questions that allow an organism to be identified based on its characteristics.
15	Dichotomous	A classification key based around a series of pairs of phrases or descriptions.
16	Carl Linnaeus	A Swedish scientist who developed the system of classification we use today.
17	Genus	A rank of classification below family and above species. Its name must be written with a capital letter at the start.
18	Species	A group of similar organisms that can breed with one another to produce fertile offspring.
19	Vertebrate	Animal organisms that do have a backbone, for example, humans and snakes.
20	Invertebrate	Animal organisms that do not have a backbone, for example, insects or jellyfish.
21	Mammal	Vertebrate animals that are warm-blooded, have hair and feed their young with milk.
22	Insect	Invertebrate animals that have three body segments, three pairs of legs and most have two pairs of wings.