# Year 7 Art and Design Spring Term Knowledge Organiser

Ke	y Vocabulary:		Land /	Art		
1	The Formal Elements of Art	The formal elements of art are used to make a piece of artwork. These elements are line, tone, texture, shape, pattern and colour.	10	Earth Art	Land art or Earthworks is an art movement that began in the 1960s and 1970s, mainly taking place in the UK and the USA.	
2	Line	A line is a mark or link between two points.			This type of art uses the materials of the earth for	
3	Mark	Mark making describes the different lines, dots, marks, patterns and textures created to produce a work of art. Artists use gesture to express their feeling and emotions in response to something seen or something falt			building sculptures. Examples of materials used could be rocks, soils, plants, water, and vegetation. Many sculptors choose to take photographs of their work to use in art galleries.	
Λ		ieit.	11	Sculpture	Sculpture is a type of visual art that operates in three dimensions (as opposed to 2D art - paintings)	
4	Tone and Form	Tone refers to the light and dark values of an object when drawing. There are three different types of tone: shadows, mid tones and highlights.			Sculpting used to always consist of carving into stone, metals, ceramics and wood, but since the Modernism era in the 19 <sup>th</sup> /20 <sup>th</sup> centuries, there is now more	
5	Texture	Texture stimulates two different senses: sight and touch.			freedom in materials used and the processes explored.	
6	Shape	Shape is a flat, enclosed area such as a square or triangle.			Modern sculptures can use almost any material, and can involve assembling, welding, casting and	
7	Form	Form can refer to a three-dimensional composition or			modelling.	
		object.	12	Materials	Materials are what things are made from. Materials	
8	Pattern	Pattern can be a repeated decorative design.			have different qualities: they can be smooth or rough; hard or soft; heavy or light; fragile or indestructible.	
9	Colour	Colour is the element of art that is produced when light strikes an object, and is reflected back to the eye.			Artists choose materials because of their particular qualities.	
		A colour wheel is an illustrative organisation of colour hues around a circle, which shows the relationships between primary colours, secondary colours and tertiary colours.		Media	Media is the materials and tools used by the artist to create a work of art. For example ,pen and ink. The pen is the tool and the ink is the material.	

#### Year 7 Computing Autumn Term Knowledge Organiser Block Based Coding in Scratch



# Year 7 Computing History of Computing & Introduction to Networks

Key Vocabulary:			Key Vocabulary:				Key Vocabulary:			
1	Cryptography:	The art of writing or solving codes.	11	Bandwidth	Amount of data that can be moved from one point to another in a given time.	17	Hub	Connects a number of computers together. Ports allow cables to be plugged in from each		
2	Decipher:	Convert (a text written in code, or a coded signal) into normal language.	12	Buffering	Data arriving slower that it is being processed	18	Sever	connected computer. A powerful computer which provides services to a network		
3	Hardware:	Parts of a computer system you can physically hold and touch.	13	IP address	A unique address for every device on the internet	19	Cable	Used to connect different devices together. They are often		
4	Software:	The programs on a computer you cannot physically hold and touch.	14	Packet	Networks send/receive messages	20		made up of a number of wires.		
5	Input:	Information (data) put in to a computer.			in units called packets	20	Router	networks together across the internet		
			15	Protocol	All methods of communication			$\sim$		
6	Process:	Actions or steps taken to achieve an end result.			need rules in place in order to pass on the message successfully. These sets of rules are called 'protocols'					
7	Output:	Information (data) displayed by a computer after it has been through a process.	16	Network Hardware	Physical equipment required to set up a network		Hub	r		
								Server		
8	Wired	Wired networks send data along cables.	_					-		
			Ho	w Computers proc	ess information					
9	Wireless	Wireless networks send data through the air using radio waves.	In	Input Iformation (data) pu	Process ut Actions or steps taken	Informatio	Output on (data) displayed	by a		
10	Bandwidth	Amount of data that can be moved from one point to another in a given time.		in to a computer.	to achieve an end result.	compu th	iter after it has bee rough a process.			

### Year 7 Drama Spring Term Knowledge Organiser

Кеү	v Vocabulary:		The Terrible Fate of Humpty Dumpty Rehearsals				
1	Characterisation	Use of voice and					
		movement to create a role.	8 What is characterisation?				
2	Stage Levels	Staging to create Status – height,	At the heart of all good drama is a story and characters. The art of story telling is one of the most necessary skills required to create meaningful and interesting dramatic work. During this topic you will study and practically explore how to create characters and storylines.				
		in charge, recations	9 What is Stereotyping?				
2			Stereotyping is a popular and simplified characterisation of people often made according to how they visually appear or behave. In drama, stereotypes are how we assign a role to a				
3	Facial Expressions	Matches the character's feelings/emotions	character in a drama. The Hero, the Mentor, the Villain and s forth.				
			10 Which key skills are developed?				
			Communication Freeze Frames				
4	Body language	Over exaggerated to create identifiable characters to a young audience.	Teamwork Characterisation Script writing Reading Vocal and physical				
			11         Facial Expressions and emotions				
5	Gestures	Exaggerated hand and head movements	What are the emotions?				
			12 What we do				
6	Monologue	A character speaks directly to the audience about their feelings.	<ul> <li>Experiment with strategies for use of stage voice to show meaning.</li> <li>Read and interpret characters in scripts.</li> <li>Learn to look for the given circumstances.</li> <li>Explore character motivation and develop vocal</li> </ul>				
7	Tableaux	A single frame forming a motionless image	<ul><li>performance from this.</li><li>Prepare for and perform scenes from 'The Terrible Fate of Humpty Dumpty' by David Calcutt</li></ul>				

#### The Terrible Fate of Humpty Dumpty Performance

13	Performance Keywords
Key words	Definitions
Diction	How clear and precisely words
	are spoken
Projection	Speaking using clear stage voice
Pace	The speed of speech
Pitch	How high or low the voice is
Pause	Break in the speech
Volume	How loud or soft you speak
Accent	Pronunciation based on place of origin
Emphasis	The syllable or word that is stressed
Intonation	Adapting voice to show
	meaning
Expression	Making the emotion clear to the
_	audience - visual and audible
Given	The facts about the character
Circumstances	that the actor cannot change
Script	A play text
Interpretation	Deciding on the meaning of a script
Motivation	What a character wants in a scene
Stage	Instructions in a script for action
direction	and interpretation
Staging	Plan the use of space
Renearsal	Practising the piece of drama.
BIOCKING	to stage a scene tocusing on transition
Dramatic	To create suspense for the
Tension	audience
Dialogue	Conversation between
	characters

# Year 7 Science Autumn Term Knowledge Organiser – Elements, Atoms & Compounds

Key Vocabulary:		Elements & I	Periodic Table	Compounds and formulae			
,	· · · · · · · · · · · · · · · · · · ·		14. Ele	ements	17. Compounds		
1	Atom	The smallest particle of an element that can exist.	<ol> <li>All substances are composed of atoms</li> <li>Elements are made</li> </ol>	3. There are about 100 different elements	14. Compounds are formed from elements by chemical reactions 15. Chemical reactions always involve the production of one		
2	Condensing	A physical process that results in the change of state from a gas or vapour to a liquid.	from only one type of atom.	part of an element that can exist	or more new substances e.g. in the diagram below there are two elements that when they react together, make a new compound		
3	Compound	A compound is a substance that contains two or more elements chemically bonded together.	element because it is made from only one type of atom.	properties. 6. Physical properties = state, properties.			
4	Corrosive	Has the potential to seriously damage skin or surfaces. The <b>corrosive</b> liquid burned through the bench.		<ul> <li>appearance, smen, magnetic,</li> <li>etc.</li> <li>7. Chemical properties =</li> <li>what it reacts with and how</li> <li>reactive it is</li> </ul>	liquid element gas element solid compound		
5	Element	A substance made up of only one type of atom. <i>Oxygen is an <b>element</b>.</i>	15. Peric	odic Table	joined together in fixed proportions 17. A compound has different properties from the elements it's composed 18. Compounds can only be separated into elements by chemical reactions		
6	Flammable	Will set on fire easily.	9. The Periodic Table is organised in the 10. Groups are vertical column	sed into periods and groups			
7	Matter	Any substance which takes up space and has mass. All the chemicals were made of	<ol> <li>Periods are horizontal rows</li> <li>Elements in a group have s</li> <li>Metals are on the left hand</li> </ol>	s imilar chemical properties I side of the 'staircase' and non-	19. A molecule is two or more non-metal atoms chemically joined together – this can be an element (e.g. H2) or a compound (e.g. H2O)		
		matter.	metals are on the right hand si	de of the 'staircase'.	18. Naming compounds		
8	Molecule	A small group of non-metal atoms chemically joined together There are millions of <b>molecules</b> of water in a swimming pool.	1         H           1         Be           1         Be <tr tb=""></tr>	NON-METALS         P           B         C         N         N         P         Nee           B         C         N         N         P         Nee           B         C         N         N         P         Nee           B         Si         B         Si         C         N         Nee           B         Si         B         Si         C         C         Nee           B         Si         B         Si         C         C         Nee           B         Si         B         Si         C         Nee         Nee           B         Si         B         Si         C         C         Nee           B         B         B         Si         C         Nee         Nee           B         B         B         Si         Si         Nee         Nee      <	<ul> <li>20. There are rules to follow when naming compounds:</li> <li>a. Usually the metal goes first and the non-metal goes second</li> <li>b. If a metal and a non-metal react, the name of the non-metal ends in -ide</li> <li>c. For some compounds, if there are a different number of</li> </ul>		
9	Malleable	Can easily be shaped.	K Ca Sc Ti V Cr Mn Fe C	o Ni Cu Zn Ga Ge As Se Br Kr	atoms we add in 'mono' for 1, 'di' for 2 and 'tri' for 3		
10	Particle	A tiny portion of matter.	Rb Sr Y Zr Nb Mo Tc Ru R	h Pd Ag Cd In Sn Sb Te I Xe	d. If the compound names ends in -ate then it usually		
11	Periodic Table	A table which orders all of the known chemical elements.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	r Pt Au Hight Hight Pb Bi Pb At Rn r Pt Au Hight High	contains three elements, including a non-metal and oxygen		
12	Sonorous	Makes a ringing sound when struck.	16 Hazar	d Symbols	19. Chemical formulae		
13	State	Short for 'state of matter'. The states of matter are solid, liquid and gas.	Corrosive Explosive Oxidi	Serious Harmful to health the sing hazard environment	<ul> <li>21. Each element is represented by a chemical symbol.</li> <li>e.g. Iron = Fe, oxygen = O, magnesium = Mg, gold = Au</li> <li>22. The chemical formula of a molecule or compound tells</li> </ul>		
		temperature is liquid.			you which elements and how many atoms of each are in one molecule		

Harmful Flammable

Toxic

Gas under

pressure

e.g. In HNO3 there is 1 atom of hydrogen, 1 atom of nitrogen and 3 atoms of oxygen per molecule.

the number of atoms of that element are in one molecule

# Year 7 The Girl of Ink and Stars Half Term 2 Knowledge Organiser

Key	y Vocabulary:			Themes:	Characters:		
1	Tension	A build up to the most exciting or	9	Friendship	13 Isabella		
		fearful part of the story.	Isab	ella and Lupe show both extremities of a friendship; the good and the bad.	The protagonist who is Da's daughter.		
			10	Mystery and Tension			
2	Metaphor	A comparison, saying something is something else.	The s myst atter Terri Yote	tory begins with Cata's death, which creates immediate ery. This is then followed by Lupe's disappearance as she npts to find the murderer. She goes to the Forgotten tories where the audience learn more about Arinta and	14DaIsabella's father is a map maker. He is imprisoned in the Dedalo.		
3	Mood	Emotions that are presented	11	Plot Summary:			
		within a story. Setting can help to develop a mood.	A you frien orcha	ung girl, Cata, mysteriously dies after Isabella's best d, Lupe, asked her to get her some dragon fruit from the ard.			
4	Protagonist	The main character in a story.	Isabe accus prepa	ella and Lupe have a big argument and Isabella ses Lupe of causing Cata's death. The Governor makes arations to leave the island with his family, but their is burnt down by some angry rebels, including Pablo	Lupe Isabella's best friend who goes missing. Her father organises a hunt for her.		
5	Hero	A person who is admired for their bravery.	Lupe impr orgai	runs away. There is an uprising and many people are isoned in the Dedalo, including Da. The Governor hises a search party into the Forgotten Territories. As a			
6	Uprising	Rebelling against someone or something.	carto is eau walls rivers is stin	grapher's daughter, she has knowledge of the stars, and ger to navigate the island. But the world beyond the is a monster-filled wasteland – and beneath the dry s and smoking mountains, a legendary fire demon (Yote) rring from its sleep.	Isabella's father, he is the cruel dictator of Joya.		
7	Magical realism	A type of writing that creates a	Isabe	la and Lupe get lost in the Labyrinth beneath the			
		real world, but adds magical elements to it.	Forge While the le relea	otten Territories and must avoid the terrifying Tibicenas. st there, Isabella comes face to face with Yote, and using egendary sword of Arinta, she saves the island by sing the ocean's water and flooding the demon world. In	17 <b>Pablo</b> Family friend of Isabella and Da. He is the son of Masha and is very protective.		
8	Dictator	A powerful person who forcefully	the p from	rocess, Lupe becomes stuck in the flood water and slips Isabella's grasp.			
		controis a country.			18 Masha		
			The I trapp trapp	Dedalo floods with water and it seems that many are bed. But Pablo manages to save them by breaking the loor which had been nailed down by the Governor.	She is the mother of Pablo and is very protective of Isabella.		
9	Theme	Main ideas that are explored throughout a narrative.	Wate to flo	er continues to flow beneath the island, and Joya begins bat. The island is now safe.			

# Mi familia-Year 7

		Family				Let's show off	7. Para	
1.	<b>En mi familia hay</b> In my family there is	mis padres – my mi madre – my r grandad mi padre – my d mis abuelos – m	mis padres – my parents     mi abuela – my nan       mi madre – my mum     mi abuelo – my       grandad     mi tío – my uncle       mi abuelos – my arandparents     mi tía – my aunty			Ojála tuviera un hermano/una hermana – If only I had a brother/sister	1	
		Apperance				Nos peleamos como el perro y el gato – we fight like cat and		
2.	<b>Tengo</b> – I have <b>Tiene</b> – he/she/it has <b>Tienen</b> – they have	los ojos - eyes		azules – blue marrones - brown verdes – green arises - grey		aog Me parezco mucho a mi madre/mi padre – I really look	3.	
		el pelo - hair		castaño – brown		like my mum/dad	4.	
				rubio – blond		Larger numbers		
				liso – straight	5	20 – veinte 30 – treinta	5.	
			<b>rizado</b> – curly <b>largo</b> – long			40 - cuarenta	6.	
		pecas – freckles		cono - snorr		<b>50</b> – cincuenta <b>60</b> – sesenta		
		barba – a beard bigote – a mous	l tache			70 – setenta	7.	
	<b>Soy</b> – I am <b>Es</b> – he/she/it is	calvo – bald pelirrojo – a redł	gord head delg	do - fat jado - slim	<b>90</b> – noventa			
	<b>Son</b> – they are	<b>alto</b> – tall <b>baio</b> – short	joven vieio	- young - old		100 - cien	8.	
	<b>Llevo</b> - I wear <b>Lleva</b> – he/she wears	gafas - glasses				Remember!		
	Llevan – they wear				6		9.	
		My house			Ū	When we want to form numbers		
3	Vivo en - I live in Un	<b>ia casa</b> a house	antiguo/a bonito/a	I – old grande – big - nice moderno/a –		from 30 – 99, we have to use "y"	10.	
	un	<b>piso</b> - a flat	modern cómodo/	<b>a</b> – comfortable		e.g.		
			pequeño,	<b>/a</b> – small		setenta y cinco – thirty and 5 (35) setenta y dos – seventy and two (72)	11.	
	Está en – it's in el	campo – the countryside el norte – the north				(81) (81) (81) (81) (81) (81) (81)	12	
	la ur el la	costa – the coast na ciudad – a city desierto – the des montaña – the m	sert Iountains	el sur – the south el este – the east el oeste – the west el centro – the		cuarenta y ocho – forty and eight (48)	12.	
	Ce U	entre <b>1 pueblo</b> – a villaa	ie				13.	
		Key questions	5					
4	<b>¿Cuántas personas hay</b> family?	<b>en tu familia?</b> - h	iow many	people are there in your			14.	
	¿De qué color son tus o	<b>jos?</b> – What colou	r are your	eyes?			15.	
	¿Cómo es? – What is he ¿Cómo es tu casa o tu ¿Dónde está? – Where i	e/she like? piso? – What is you is it?	ur house of	r flat like?			16.	

7. Paralle	l Text:	
1	Hola. Me llamo <u>Julia</u> y tengo <u>once</u> años.	Hello. My name is <u>Julia</u> and I am <u>11</u> years old.
2.	Soy bastante <u>alta</u> y <u>delgada</u>	I am quite <u>tall</u> and <u>slim</u>
3.	y tengo los ojos <b>marrones</b> .	and I have <u>brown</u> eyes.
4.	Tengo el pelo <u>rubio</u> y <u>largo</u>	l have <u>long</u> , <u>blond</u> hair
5.	<u>y llevo gafas.</u>	and I wear glasses.
6.	¡Me parezco mucho a <u>mi</u> <u>madre</u> !	l really look like <u>my mum</u> !
7.	Vivo en una casa <b>pequeña</b>	l live in a small <u>house</u>
8.	que está en el <u>campo</u> .	which is in the <b><u>country</u></b> .
9.	Mi casa es <u>antigua</u>	My house is <u>old</u>
10.	pero es muy <u>cómoda</u> .	but it's very <u>comfortable</u> .
11.	En mi familia hay <u>cinco</u> personas.	In my family there are <b>five</b> people.
12.	Hay mi <u>madre</u> , mi <u>padre</u> , mi <u>hermano</u> , mi <u>hermana</u> y yo.	There is my <u>mum</u> , my <u>dad</u> , my <u>brother</u> , my <u>sister</u> and me.
13.	Mi hermano tiene el pelo <u>castaño</u>	My brother has <u>brown</u> hair
14.	y es bastante <u>bajo</u> y <u>gorda</u> .	and he's quite <u>short</u> and <u>fat</u> .
15.	Es muy <u>tonto</u>	He's really <u>silly</u>
16.	y nos pelamos como el perro y el gato.	and we fight like cat and dog.

# Year 7 GCSE Science Autumn Term Knowledge Organiser - Forces

Кеу	Vocabulary:		18	Forces	20	Interaction Pairs
1 2 3	Air resistance Contact Deformation	A force that acts in the opposite direction to motion. When two objects touch each other to cause a reaction. When a force changes the shape of an	1. 2.	A force is an interaction (e.g. a push, pull or twist) between 2 objects. A force can change an object's shape, speed or direction.	1. 2. 3.	Forces <i>always</i> act in interaction pairs. Interaction pairs act on 2 different objects. If A exerts a force on B, then B exerts a force on A. The forces are equal in size but opposite in direction.
-		object.	5. 4.	Contact forces need the objects to be touching.	21	Deformation
4	Drag	A force of resistance that opposes motion in fluids and includes air resistance and water resistance.	5.	Examples of contact forces include: drag forces, friction, air resistance, tension and normal contact	1. 2.	Changing the shape of an object can be called deformation. The extension of a spring is an example of
5	Extension	The difference between the original length of an object and its length after it has been stretched.	6.	Non-contact forces can act at a distance. They do not need the objects to be touching.	3.	deformation. The extension of a spring = final length- original length.
6	Force	A push, pull or twist that can change the shape, speed or direction of an object.	7. °	Examples of non-contact forces include: gravity, electrostatic attraction and magnetism.	4. 5.	The extension of spring can be measured when different weights are added. The extension is larger when more weight is
7	Free-body force diagrams	Diagrams that are used to show how forces act on an object.	9.	<ul> <li>Forces nave size and uncertain.</li> <li>Forces acting on one object are represented by free- body force diagrams using arrows to show the direction and size.</li> </ul>		added.
8	Friction	The resistance to motion of between two surfaces			6.	If too much force is added, then a spring does not
9	Gravity	A force of attraction that acts	10			return to its original shape. The spring has reached its
10	Interaction	When forces or objects affect one another.	19	Balanced and Unbalanced Forces	22	elastic limit.
11	Lubricant	A substance that can be used to reduce friction.	2.	same object are equal in size but opposite in direction.	1	Drag forces occur in fluids. Eluids are liquids and gases
12	Magnetic	A force caused by magnets.	Ζ.	forces are balanced.	1.	Drag forces include water resistance and air resistance.
13	Non-contact	A force that acts on an object without coming physically in contact with it.	3. 4.	Unbalanced forces change an object's shape, speed or direction. The unit of force is Newton (N).	2. 3.	Friction occurs between solids. Drag forces and friction are caused by interaction of 2 objects moving or trying to move over one another.
14	Opposing	To work against each other.	5.	The resultant force on an object is the net force or the	4.	Drag forces and friction act in the opposite direction to motion
15	Resultant force	The net force or the overall effect of all the forces acting on an object.	6.	overall effect of all the forces acting on an object. When forces are balanced the resultant force is ON.	5.	To move a block along a surface, the forces need to be unbalanced. The pulling force needs to be just bigger
16	Tension	A force exerted on a rope, chain, string or cable.		Resultant force = 30 N - 30 N = 0 N		
17	Water resistance	A type of force that acts in the opposite direction to motion on objects that are moving through water	7. W ON.	When the forces are unbalanced the resultant force is not 30  N $50  NResultant force = 50 N - 30 N = 20 N right$	6. 7.	Rougher surfaces generate more friction than smoother surfaces. Friction is reduced by adding a lubricant.

# YEAR 7 HALF TERM – Climate

Key vocab	Definition	2. The Greenhouse Effect			4. Renewable vs Non Renewable			
Greenhouse Effect	The natural process of the warming of the earth that allows life o exist.	The green	house effect				Advantages	Disadvantages
Enhanced Greenhouse Effect	The magnifying of the greenhouse effect caused by human activities that release greenhouse gases.	Solar radiation	Some solar radiation is reflected by the earth and the	Some of the infi passes through and some is ab re-emitted in all effect of this is	rared radiation the atmosphere, sorbed and I molecules. The to warm the earth's	ħ	Solar energy does not generate carbon emissions. Solar panels can be placed	Advance costs can be expensive. Equipment needs regular maintenance.
Greenhouse Gases	Carbon Dioxide (CO2), methane nitrous oxide and CFC's (chlorofluorocarbons)	passes through the clear atmosphere	e atmosphere	surface and the	e lower atmosphere.	Solo	on houses allowing households to become more energy secure.	Manufacturing of panels requires fossil fuels to be used.
Quaternary	The last 2.6 million years	Most radiation is absorbed by the			Infrared radiation is emitted from the			Habitats can be damaged with solar panel farms.
Renewable	An energy source that can be used again and will not run out, e.g. solar and wind power.	and warms it	earth's surface and warms it		earth's surface		Wind power does not	Wind power can only be
Non Renewable	An energy source that can only be used once and will eventually run out, e.g. fossil fuels and nuclear power.	3. Humo	3. Human Activities that contribute to alobal warming.			Wind	generate carbon emissions. The land beneath turbines can be used for other things.	used when the wind blows. Some people think turbines spoil views and make a noise.
Fossil Fuels	Oil, natural gas and coal which are made from decomposing plants and animals from millions of years ago.	Farming of livestock produces a lot of methane – cows love to fart.		lels	Fossil fuels have been used for many years and so they	Burning fossil fuels releases carbon dioxide, adding		
Global Warming	The effect of the enhance greenhouse effect where the earth's temperatures increase unnaturally.	Farming	flooded farms produce methane. Deforestation contributes to global warming as trees absorb CO2			Fossil Fu	are easy to use. They generate large amounts of energy relatively cheaply.	The UK is dependent on prices set by other countries.
Glacial	A very cold period of time, such as an Ice Age.		Most industry uses a l	lot of energy.				
Interglacial	A warmer period of time.	Industry	gases. Industrial waste may end up in landfill sites where it decays, releasing methane.			Power	Small amounts of uranium produce lots of energy. Once up and running, it is	power are highly dangerous and can cause loss of life. They can also have long
Adaptation	Changing the way that you live to reduce the impacts of climate change on people and the economy, e.g building houses on stilts in flood prone areas.	Energy	CO2 is releases in to like coal, oil and natu stations.	the atmosphere ural gas are bur	e when fossil fuels nt, e.g. in power	Nuclear	cheap to produce electricity. Carbon emissions are low.	lasting affects. The waste from nuclear power is dangerous and so expensive to store.
Mitigation	Trying to stop climate change from happening by reducing the amount of greenhouse gases		Most cars, lorries, ship which release green	os and planes ru	un on fossil fuels, den burnt			
	produced.	_	Car ownership is rapi China.	idly increasing ir	n countries in	5. Mitigation and Adaptation		Adaptation
	1. Natural Climate Change	Transport	More cars are on the Congestion increase	; roads in urban s – cars are runr	areas. hina for longer, so	Flo	<b>bod Defences –</b> Protecting t levels and flo	he coast from rising sea
<ul> <li>Last 2.5 million years: global climate shifted between</li> <li>Cold glacial periods (100,000 years)</li> <li>Warmer interglacial periods (about 10,000 years)</li> <li>20,000 years ago: Earth was cold (Ice Age)</li> <li>12,000 years ago: end of the last glacial period, Earth warms up.</li> <li>Last 10,000 years: climate mainly warm.</li> <li>Last 1000 years: global warming – rapid increase in global temperature.</li> </ul>		RENEWABLE ENERGY BIOMASS GEOTHERNMAL WIND GEOTHERNMAL WIND GEOTHERNMAL WIND GEOTHERNMAL WIND GEOTHERNMAL WIND GEOTHERNMAL WIND ENERGY ENERGY HE FORLOF ENERGY HE FORLOF ENERGY ENERGY ENERGY ENERGY ENERGY ENERGY ENERGY ENERGY ENERGY ENERGY			ABLE ENERGY COAL	<ul> <li>Drought Resistant Crops – Farmers will need to change the crops that they grow as temperatures change.</li> <li>Crops can also be genetically engineered to need less water as rainfall becomes less reliable.</li> <li>Electric Vehicles – By driving electric vehicles there are less fossil fuels burnt and the issue of transport contributing the enhanced greenhouse effect is reduced.</li> <li>Building Changes – When new buildings are designed ensure that they are able to withstand the impacts of climate change. For example building houses on stilts in flood prone areas.</li> <li>International Agreements – Countries can get together and create targets around renewable sources of energy and greenhouse gases.</li> </ul>		

# YEAR 7 HALF TERM 4 – FIELDWORK

Vocab	Definition				2. Risk	< Assessments	Presentation and Analysis: e.g. Bar Chart	
Primary Data	Data that you persond fieldwork.	Illy collect when doing	It is in By ic	mportant to dentifying a ri	carry out a risk ass sk in advance, I a pring waterproof c	sessment in order to ensure that I stay safe. can put in measures to reduce the risk. For	Bar charts are used to show the number of things (or frequency)	
Secondo y Data	Data that someone el	se has collected.	CXG	npie, by wee	Risk	Mitigation	<ul> <li>Plot categories on the x-axis.</li> <li>Leave gaps between the bars</li> </ul>	
GIS	Geographical Informa and interactive maps	tion Systems – online maps that help represent data.	her	Wet weath dangerous	ner is s due to	Students advised to bring plenty of water and sun cream if the weather	as data is not continuous.	
Quantito ve Data	ati Data with a numerical	value such as statistics.	Weat	slippery gr weather a risk of deh	oynes etc. Hot Iso poses the ydration.	forecast is hot. If the weather forecast is wet, students are advised to bring appropriate clothing and footwear.	What are the highest and lowest bars? Is there any data that surprises you? Use data to help support your points.	
Qualitat e Data	<ul> <li>Data that is words or ir views, opinions or feeli</li> </ul>	nages, usually containing ngs.	<u>ה</u> מ	Risk of verb members o	oal abuse from of the public	Students told to walk around in pairs or more. Meeting point given to students	Presentation and Analysis: e.g. Line Graph	
Analysis	Detailed examination	of something usually data.	ener	especially out question	when carrying onnaires. Also	to meet at regular times and a head count to be done. Students to be polite	A line graph is used to show	
Conclus n	Drawing together resu fieldwork drawing resu enquiry question.	Its to reach an answer. In Its from data to answer the	<u>б</u> а	risk of abd	uction.	when asking questionnaires.	Changes in temperature through a day. More than one line can be plotted so that a comparison	
Evaluatio n	Weighing up the positi something. In fieldwork reliable and accurate	ves and negatives of < it refers to considering how the results are.		There are many different types of maps. Maps display information and data that geographers may find useful			<ul> <li>can be made over time.</li> <li>Both the x and y axis are numerical and continuous.</li> <li>If time is one of the variable, always plot it on the x-axis.</li> </ul>	
Accurac	uracy How limited errors have been, therefore making data more likely to give true results.			(height and shape of the land) and we can use four figure and six figure grid references to locate places.		ape of the land) and we can use four gure grid references to locate places.	Analysis Is the line going up or down? Is the line steep or does it go up or down slowly? Is the line smooth or does it zig- zag? Use data to help support your points.	
Reliabilit	How trustworthy data	How trustworthy data is based on it being a good		estionnaire	A questionnaire is designed and the investigator asks			
	When something is not	done fairly as there is a			Note of the grap of investigation. Add datailed		Presentation and Analysis: e.g. Pie Chart	
Bias	preference given.	···· , ··· . · · ·	Field Sketch		annotations on	rea or investigation. And detailed	A pie chart is a circle divided in to sections. Each section	
Correlat n	When there is a link or pieces of data.	relationship between two			the field sketch interactions wh	and comment on the noticeable ich you find particularly important.	represents a percentage. ➤ Sectors can be shaded or coloured, and need labels or a	
Physical Fieldwor	Enquiry questions base k environment and proc	ed around the natural esses.		Photos	Photographs of present relevar	f areas within the investigation that nt aspects of the investigation, e.g. litter in	<ul> <li>key.</li> <li>Multiple pie charts can be used where the size of each circle shows ration.</li> </ul>	
Human Fieldwor	k Enquiry questions base interactions with the environments.	Enquiry questions based around human interactions with the environment and man-made environments		a park or destroyed outdoor furniture. A survey where a chosen aspect is rated using polar		oyed outdoor furniture. e a chosen aspect is rated using polar	Analysis Which categories are the smallest or largest sections of the pie chart? Are the categories divided up equally?	
	1. Types of D	ata		Bipolar Survey	opposite rating scale of -5 (cor	is (e.g. from -5 to +5) For example: On a mpletely against) to +5 (completely for),	Use data to help support your points.	
	Primary Data	Secondary Data		what is your opinion of				
Quantitative	Cloud cover using the Okta Scale Wind Direction Wind Speed	Weather data ArcGIS Online	Lo	and Use Survey	your chosen and an area of lanc building, comm	ey, choose a relevant area that will be of what is being investigated. Walk down ea and note down (tallys are useful) how d is being used (entertainment, public hercial, service, outdoor etc.)	Refer back to your hypothesis, in two simple sentences try to provide an overview of your findings. Did you disprove your hypothesis? Ensure that your hypothesis is consistent with what you are saying in your analysis.	
Qualitative	Environmental quality survey People counts Questionnaires and interviews Photographs Land use mapping	OS maps and maps of schools Satellite images	Th Usi Environmental er Quality Survey gr sh sc		The area of a c using a scale, for environment ar greenery etc. B should be chos specific to your	chosen environment is rated or example 1-5. Different aspects of the re rated such as noise, building condition, defore conducting, investigation sites en and your survey should be made r investigation purpose.	What were the strongest or most reliable sections of your investigation? How could you develop your investigation? What else could you have investigated? Were there any problems with your techniques? Were there any limitations?	

### Year 7 Science Spring Term - Gravity

	Key Vocabulary:						
1	Accelerate	When an object changes speed or direction.	•				
2	Asteroid	A small, rocky object that orbits the Sun (smaller than planets).	•				
3	Astronaut	A person who is travels or is trained to travel in space in a spacecraft.	•				
4	Attract	When one object pulls another towards it.	1				
5	Contact Force	A force that requires objects to be directly touching in order to have an effect.	•				
6	Eclipse	When light to an object in space is blocked by another object.	•				
7	Galaxy	A system of millions if stars, gas and dust, held together by gravity.	•				
8	Gravity	The attractive non-contact force between all objects with mass.	1				
9	Gravitational Field Strength	The force exerted per unit of mass (a measure of how 'strong' the gravity is.	•				
10	Lightyear	The distance light can travel in one year.	•				
11	Mass	The amount of matter in an object.	•				
12	Non-Contact Force	A force that doesn't require objects to be directly touching in order to have an effect.	•				
13	Orbit	The curved path of one object around another, usually a planet, moon or satellite.	2				
14	Satellite	An object in space that orbits a planet.	•				
15	Universe	All of space and time, including planets, starts, galaxies and all matter and energy.	•				
16	Weight	The force of gravity acting on a mass.					

17	Gravity	2	1	
• G • G • N • N	iravity can also be called gravitational force. iravitational forces act on and between all objects. iravity is a non-contact force. Ion-contact forces have a force field that weakens vith distance.	•	T A A C	he <b>satellite</b> natural sat rtificial sate ommunicati
• T d	he gravitational field strength decreases with istance.	2	2	
18	Weight and Mass	•	lt Y	takes the E ear.
• T • V • T • V	he unit of mass is kilograms (kg). Mass stays the same everywhere. <b>Veight</b> is the force of gravity acting on a mass. he unit of weight is Newtons (N). Veight = mass x gravitational field strength (N) (kg) (N/kg)	•	TI TI ax	he Earth rot he seasons xis at 23.5°C
19	Space and Gravity			
<ul> <li>G</li> <li>A</li> <li>a</li> <li>T</li> <li>C</li> <li>T</li> <li>Ii</li> </ul>	iravity is the force that holds objects in orbit. In orbit is the curved path of an object in space round another object in space. There are many billions of <b>galaxies</b> in the universe. Our solar system is a tiny part of one galaxy. The Universe is so large that distances are described in ghtyears.			
• A y	lightyear is the distance that light can travel in 1 ear.	2	3	
20	The Solar System	•	A b	n eclipse is locked by a
• C si • T • T • T	Our solar system contains lots of objects including the un, planets, satellites, asteroid belts and comets. the <b>sun</b> is the star at the centre of our solar system. the <b>planets</b> orbit the sun. he planets are in the order: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.	•	T e A b t t A b E	here are tw clipse. solar eclips locked from he moon co lunar eclips locked from arth comes

21	Satellites
• T • A • A c	he <b>satellites</b> orbit planets, asteroid belts and comets. natural satellite is a moon which orbits a planet. rtificial satellites include those that orbit the Earth for ommunication.
22	Day and Night and Seasons
<ul> <li>It</li> <li>Y</li> <li>P</li> <li>T</li> <li>T</li> <li>a</li> </ul>	takes the Earth <b>365 days</b> to orbit the sun once. This is a <b>ear</b> . lanets rotate on their axis which produces day and night. the Earth rotates once every 24 hours. the seasons are caused because the Earth is tilted on an axis at 23.5°C.
23	Eclipses
• A b	n eclipse is when the light to an object in space is locked by another object.

- There are two types of eclipses; a solar eclipse and a lunar eclipse.
- A solar eclipse happens when light from the Sun is blocked from reaching parts of Earth. This happens when the moon comes between the sun and the Earth.
- A **lunar eclipse** happens when light from the Sun is blocked from reaching the moon by the Earth when the **Earth comes between** the moon and the sun.

# Year 7 History Medieval King Problems Spring Term 2 Knowledge Organiser

Кеу	v Vocabulary:		Why was the Church so powerful and who challenged it's power?	Who challenged the king's power?		
1	The Church	the Catholic religion led by the pope supported by archbishops	9 Why was the Church so powerful in the Medieval period?	12 Why were the barons angry at King John?		
2	Significance	an event that leads to change in	<ul> <li>Showed path to heaven and hell- priests would forgive people's sins and help them get to heaven, it was taught in he Bible and on Doom paintings that good people who didn't sin went to heaven.</li> <li>Helped the community, priests visited the sick and gave</li> </ul>	<ol> <li>John went to war fwice against the French king. He was beaten <b>and</b> lost land.</li> <li>John raised taxes in England to pay for the wars. This upset his BARONS! He ordered them to pay far more tax than earlier kings had done.</li> </ol>		
		the future.	<ul> <li>food, shelter and help to the poor</li> <li>Rich – peasants had to give a tithe (a tenth) of their crops to the Church and King William had granted the Church</li> </ul>	3.He quarrelled with the Pope about how to run the Church. From 1208 until 1213, the Pope banned all church services in England and		
3	The Pope	the leader of the Catholic Church, believed to be God's representative on Earth. There would be power struggles between the Pope and medieval kings	<ul> <li>25% of the land in England.</li> <li>Providing Entertainment &amp; Social events- These included feasts and fairs, puppets shows, archery contests and dances. There were also drinking parties known as church ales and mystery plays.</li> </ul>	English people feared that they would all go to HELL!		
4	Heaven	the religious belief taught in the Bible and church services that if	10 Who was Thomas Beckett?			
		you have led a good life you will	Thomas Beckett was the Archbishop of Canterbury and had	13 What did the Magna Carta promise?:		
		be rewarded by spending eternity in the home of God	been the closest friend of King Henry II. He was murdered in 1170 in Canterbury Cathedral by 3 knights. Thomas Beckett had been made Archbishop of Canterbury (he most powerful Church position in medieval England) by Henry II who was angry at the amount of power the Pope had over him.	The King must not interfere with the Church. When a baron inherits land he should pay the king no more than £100 The king cannot collect new taxes unless the barons and bishere care		
5	Hell	the religious belief that If you have sinned during life you will spend the afterlife in a place of	11 Who is to blame for the murder of Thomas Beckett?	No freeman can be put in prison without a proper trial with a jury The king's men must not take anyone's goods/crops without		
		evil and suffering.	The Knights- They did not have orders from the King. They decided to kill Becket just to gain the King's approval. They	paying for them. Justice will be given without delays or bribes		
6	Human Rights	rights we are entitled to simply because we are human.	believed Henry really wanted Becket dead and they wanted to please him. <b>Thomas Beckett himself-</b> He had a good chance to escape but refused to go. He carried on the quarrel after he returned to England and he knew this would put him in danger. He	Free men and traders must be able to travel freely without having to pay tolls. Barons will be fined only if the other barons say they are guilty.		
7	sources	evidence remaining from the past that we use to find out what happened.	seemed to want to be a martyr so that he could serve God and the Church. He knew that he would go to heaven. <b>King Henry II-</b> He more or less ordered the murder. It was clear that he wanted it done. Henry was angry at his former friend who was causing him so much trouble. He wanted him			
8	interpretations	a point of view about a person/event	dead.			

# Year 7 History Spring Term Knowledge Organiser: How did the Normans transform England?

Key Vocabulary:			How did William gain complete control over England? How did the Normans transfo		How did the Normans transform England?
1	Feudalism	the system by which society was organised after the Normans came to England	8 <b>Castles</b> Building castles helped the Normans gain control because:	11	The Domesday Book:
			<ul> <li>They provide a safe base for Norman lords and soldiers</li> <li>The English had never seen castles before so they were intimidated.</li> <li>A few Normans could control huge areas of land.</li> </ul>	exact corre He se	ly how rich the country was so he could collect the ct amount of money. ent out officials to find out who owned what and what
2	Normanisation	The way England was changed by the Normans after the conquest in 1066	They can be used to launch attacks on new areas not currently under Norman control.	it was place Also V king	s worth. This way he could work out how much each would pay. This is called the Domesday Book. Within a few years of William the Conqueror becoming over 40 per cent of the land was in the bands of a small
3	Norman	People originally from Northern France, led by William, Duke of Normandy and later the King of	Bridge	numb abolis the <b>D</b> the p	ber of people, all of whom were foreign. The Normans shed slavery after information collected for <b>Domesday Book</b> had revealed that about 10 per cent of eople were enslaved.
Δ	Anglo-Sayon	England.	Moat		
4	Angio-Saxon	around Germany who had	Palisade Bailey	12	Buildings:
		migrated to England after the fall of the Roman Empire.	9 Feudal System <u>The King-</u> William said that all of the land was his. He kept 20% for himself and 25% he gave to the Church. The rest he gave out to his followers. <u>Barons (about 200)</u> They were allowed to control the land William gave them	They style were Rufus but th to be	were master builders and introduced the Romanesque to England. Hundreds of castles, abbeys and cathedrals built during the reign of William and his son William s. These imposing structures served different purposes hey all reminded the population that the Normans were a permanent presence in England.
5	Monarchy	A country led by a king or queen	In return they had to build castles and provide William with money and soldiers. Knights (about 4000)		
			The barons allowed their knights to control some of the land.	13	Surnames:
			Peasants (about 2 million)         They worked on the land and got protection from the knights.         They had to give away part of their crop. They had         little freedom. They were not allowed to leave their land	The v becau peop	vay we name ourselves also comes from the Normans use they introduced the system of surnames to show le's occupations or where they had migrated from.
6	Interpretation	a point of view about a person/event	without permission and even had to ask to get married. 10 Harrying of the North:	14	Language:
			In the winter of 1069 – 1070 William was faced with local rebellions in northern England. In order to punish those taking part William destroyed large parts of the north.	The N Old F would	lormans also introduced a new language, a dialect of rench, although for some time only the conquerors d have understood it which meant that there was one
7	Inference	a suggestion/guess based on evidence.	William's 'scorched earth' policy came to be known as the 'Harrying of the North'. As a consequence the North had lost over half its wealth and population since 1066.	langu Old E	age for the rulers and another for the ruled. Over time nglish and Old French came together in one language.

### Year 7 Design and Technology Spring Term Knowledge Organiser

Ke	y Vocabulary:		Mechanisms	2D Design		
1	Rotary	Rotation around a fixed axis is a special case of rotational motion. Familiar examples of rotary include a washing machine drum and wheels on the bus go round and round.	8 Mechanisms - What are they? In engineering, a mechanism is a device that transforms input forces and movement into a desired set of output forces and movement. Mechanisms generally consist of moving components. Mechanical motion is defined as one of the four types of	13 Linkage - What is it? A mechanical linkage mechanism is an assembly of bodies connected to manage forces and movement. The movement of a body, or link, is studied using geometry so the link is considered to be rigid. The connections between links are modelled as providing ideal movement, nure rotation or		
2	Linear	Linear motion is one-dimensional motion along a straight line, and can therefore be described mathematically using only one spatial dimension. Familiar examples of linear include a train moves on a straight line track and	motion that you will find in a mechanical system. The different types of motion are: rotary, linear, oscillating and reciprocating.	sliding.		
3	Oscillating	drawing a straight using a ruler. Oscillation is the repetitive or periodic variation of some		A pulley is a wheel on an axle or shaft that is designed to support movement and change of direction of a taut cable or belt, or transfer of power between the shaft and cable.		
		measure about a central value (often a point of equilibrium). Familiar examples of oscillation include a swinging pendulum and alternating current.	<ul> <li>9 Lever - What is it?</li> <li>A lever is a simple machine consisting of a beam or rigid rod pivoted at a fixed hinge, or fulcrum. A lever is a rigid body capable of rotating on a point on itself.</li> <li>On the basis of the locations of fulcrum load and effort, the</li> </ul>	PULLEY		
4	Reciprocating	Reciprocating is a repetitive up- and-down or back-and-forth linear motion. It is found in a wide range of mechanisms, including reciprocating engines	lever is divided into three types.			
		and pumps. Familiar examples of		15         Oblique Projection		
		and down on a trampoline and	10 Gear Train - What is it?	It is a simple type of technical drawing of graphical projection used for producing three-dimensional (3D)		
		using a coping saw to cut a piece	A gear train is a mechanical system formed by mounting	images of objects.		
5	Fulcrum	A fulcrum is the support about which a lever pivots.	gears on a frame so the teeth of the gears engage. Gear teeth are designed to ensure the pitch circles of engaging gears roll on each other without slipping, providing a smooth transmission of rotation from one gear to the next.			
6	Load	Something lifted up and carried or a mass or weight supported by	Gear ratio of the pitch circles of mating gears defines the			
		something.	speed ratio and the mechanical advantage of the gear set.	16 Evaluation		
7	Effort	The new or directly applied to a	0.0	they work well and if design can be corrected or improved.		
/	Enort	machine to lift a load is called Effort.	Ó°O Ó	It is important to evaluate your work constantly during the project to see if it is on track and so that improvements can be built-in throughout the design process, not just at the		

2.4.5

end.

						Mi insti	Year 7			
				Scho	ol subkects			5. Paral	el Text:	
1	Estudio – I stu Me encanta Iove	dy e - I lo Io	<b>el inglés</b> – english a <b>educación físic</b> a <b>biología</b> – biolo	el alemán – g a – PE ogy la historio	german <b>n</b> – history	<b>porque es</b> – because it is	<b>interesante</b> – interestir <b>aburrido</b> - boring	ng 1	Estudio matemáticas, inglés, y música.	l study ( <u>ten</u> subjects including) <u>maths</u> , <u>English</u> and <u>music</u> .
	Me gusta – 11 Prefiero – 1 prefer Odio – 1 hate	ike la la c	<b>a química</b> – cher <b>a geografía</b> – geo art <b>a música</b> – music	nistry ography <b>el d</b>	ibujo –	porque no es – because it isn't	importante – importar bueno - good	nt 2	pero no estudio informática	But I don't study IT
	No me gusta don't like No soporto –	-1 c 1 c	drama a religión – RS el español – span	ish la tecno	physics logía –		activo - active fácil - easy	3	Mi día favorito es el <u>martes</u>	My favorite day is Tuesday
	can't stand		DT <b>el francés</b> – fre CT <b>as matemáticas</b> -	nch <b>la inforr</b> - maths	nática –	porque (no) son –	relajante - relaxing difícil – hard	4	porque estudio <u>historia</u> .	because I study history
		2 E	2 subjects e.g. <b>el</b> i English and art	inglés y el dibu	jo –	are(n't)	<b>entretenido</b> - entertain <b>útil</b> – useful	ning <sup>5</sup>	Me encanta <u>la</u> <u>música</u> porque es <u>divertida</u>	Il love <u>music</u> because it's <u>fun</u>
							creativo - creative inútil – useless	6	y mi profe es paciente y gracioso	and my teacher is <u>patient</u> and <u>funny</u>
Teachers								7	pero prefiero <u>el</u> inglés porque es pan comido.	but I prefer <u>English</u> because it's a piece of cake.
2.	Mi prote de	<b>es</b> - is	antipático – m gracioso – funi	rient ean/unpleasar ny	raro – v nt aburi simpátio	weira se rido – boring ico – nice/pleasant	<b>divertido</b> – fun	8	No me gustan las ciencias	I don't like <u>science(</u> s)
	My teacher	nos de	a muchos deber	<b>es</b> – he/she gives us lots of homework				9	porque son <u>difíciles</u> y <u>aburridas</u> .	because it is (they are <u>) difficult</u> and <u>boring</u> .
	grita mucho – he/she shouts a lot explica bien – he/she explains things well tiene buen sentido del bumor – he/she bas a good sense of humour						10	<u>Me gusta mi insti</u>	<u>Llike</u> my school	
				My	school			11	porque es <u>moderno</u>	because it's <u>modern</u>
3	<b>(En) Mi insti</b> – (in) my	es - (is) no es -	(it's not)	<b>antiguo</b> – old – small	<b>mo</b> horrible – ho	<b>derno</b> – modern prrible <b>grande</b> – b	<b>bonito</b> – nice pequ ig <b>feo</b> - ugly	ueño 12	y hay <u>un patio</u> <u>enorme</u> .	And there is an enormous yard
	school	hay - († no hay tiene -	here is) - (there isn't) (it has)	un laboratorio – un campo de fú un salon de act	a science la <b>tbol</b> – a foot <b>os</b> – a theatr	lab <b>una aula</b> – a classroom otball pitch <b>una piscina</b> – a pool atre <b>un gimnasio</b> – a gym		13	Pero no hay piscina	But there isn't a swimming pool
		<b>no tiene -</b> have)		esn't una pista de tenis – a tennis co un patio – a yard/playground una clase de informática – an l		court una id un an IT room un	biblioteca – a library a cafetería – a canteen comedor – a dining room	14	Primero como algo, un <u>bocadillo</u>	First I eat something, a snack
	Let's show off Kev questions				15	o a veces <u>una pizza</u>	or sometimes a pizza			
4	En el futuro	o voy a e	estudiar in the fu	uture I'm going	5.	¿Qué estudias? - What	do you study? ' – What is your fayourite do	16	Normalmente bebo agua	Normally I drink water
Es pan comido – It's a piece of cake				¿Por qué? – Why? ¿Te gusta(n)? – Do you ¿Qué hay en tu insti? – v	u like? vhat is there in your school?	17	Durante el recreo <u>hablo con mis</u> <u>amigos</u>	During break I talk to my friends		
Siempre me ha gustado – l've always liked						¿Cômo es tu insti? - What is your school like? ¿Qué haces durante el recreo? - What do you do during breaktime?		during 18	y también <u>escribo</u> <u>SMS</u>	And I also write SMS

### Year 7 Music Spring Term Knowledge Organiser

Ke	Key Vocabulary:			Music Theory		Music Context		
1	Malady	The main tune or musical theme	8	# - Sharps and b - Flats	11	The Waltz		
1	Melody		Sharps = # to the right	Flats = b C D E F G A C D F G A C D F G A B C C D E F G A B C D E F G A B C left	Orig nam dano The	ins - The ancestors of the waltz include folk dances with es such as the Dreher, Weller and Spinner – i.e. couple ces with spinning as a distinguishing feature. Waltz is a dance in 3/4 time – with an accompaniment		
2	Articulation	How the notes are played – smooth (legato) or short (staccato)			that line Scar	has the feature of an Omm – Pah- Pah sounding bass and chords. dalous! - The dancing couples had to hold tight to each		
			9	Cnords	othe	er to be able to keep up with the tempo and with their		
3	Practice	Ways to learn and improve your own music skills – going slowly, playing little chunks of music at a time etc.	\$ \$		The tem	Viennese Waltz is the fastest ballroom dance with the po at 180 beats per minute the slowest!		
_				C E G	12	301/0111 50/0055 11		
4	Musical genres	Different styles of music Classical Pop Opera Musical Dance music - Ballroom and Modern (disco style music)	10	G B D Beethoven	Joha died an A beca "Kin Blue	nn Strauss II (born <u>Vienna</u> , <u>October 25 1825</u> ; <u>Vienna June 3 1899</u> ) was ustrian composer, conductor and violinist. Strauss ame very famous for his waltzes. He was known as the g of the Waltz". His most famous one was called <i>The</i> <i>Danube</i> .		
		Film music	Luck da una		Joha Bat)	nn Strauss II wrote two operas: <i>Die Fledermaus</i> ( <i>The</i>		
			Ludwig van whose Symi	Beethoven was a German planist and composer phony 5 is a beloved classic. Some of his greatest	livel	y music and jokes which can sometimes be made		
5	Accompaniment	Music to accompany (play in the background) the melody.	works were	composed while Beethoven was going deaf.	diffe own	rent in each performance: the singers can put in their jokes about modern times.		
			On 26 Marc concert. His	h 1778, Beethoven had his first piano recital father had arranged this to show off his son's	Toge	ether with his brothers Josef and Eduard, Johann had		
6	Chords	2 or more notes played together to accompany the melody E.g CEG a chord of C	exceptional Beethoven I	musical talent. nad a difficult time learning how to spell, he could Il and was so poor in mathematics that he gave	com the surr	plete control of the balls and concerts in the houses of rich people in Vienna. Wherever he went he was bunded by lots of admirers.		
			up on it.		His v peop	valtzes are still as popular as ever, and millions of ole in different countries hear them when they are		
7	Broken chords	Like chords but the 3 notes are played separately – Adele uses them in Someone like you!	His well-kno dramaturgio favour of sh Beethoven o	wn Fifth Symphony demonstrated his mastery of cal compositions by eschewing extended motifs in orter ones that were simpler to understand. died aged 57 on March 26, 1827	play	ed at the traditional New Year's Day concert in Vienna.		

#### Year 7 Music Spring 2 Term Knowledge Organiser

Key	y Vocabulary:		Music Theory	
4	NA - III -	The second data and second and the second	8 Omm pah pah bass line	11
1	ivielody	The main tune or musical theme		Oricia
			, , <u>, , , , , , , , , , , , , , , , , </u>	Origin
				danco
				uance
				The W
2	Articulation	How the notes are played –		that h
		smooth (legato) or short		line ar
		(staccato)		
				Scand
			9 Chords	other
3	Editing	The ability to use the editor		bodies
		function on garageband to make		Tho
		sure all your parts of music are in		tomno
		time and sound good together		tempt
				12
4	Musical genres	Different styles of music		Johan
		Classical		died <u>V</u>
		Pop		an Au
		Musical		becam
		Dance music - Ballroom and	e G B D	"King
		Modern (disco style music)	G B D	Blue D
		Film music		
				Johan
				Bat) a
5	Accompaniment	Music to accompany (play in the		difford
	·	background) the melody.	F A C	own ic
				ownje
			10 Famous Waltzes	Toget
				compl
6	Chords	2 or more notes played together	Waltz of the flowers – from Tchaikovsky's The Nutcracker	the ric
		to accompany the melody	Ballet	surrou
		E.g., CEG a chord of C	Kalan Mala Jahan Channa II	
			Kaiser Waitz – Johann Strauss II	His wa
			Wiener Plut – Johann Strauss II	people
7	Bass and chord	Still 3 notes but – the bass notes		played
		of the chord is played on its own	The Blue Danube – Johann Strauss II	
		and the other 2 notes played		
		together afterwards		

#### **Music Context**

#### The Waltz

Origins - The ancestors of the waltz include folk dances with names such as the Dreher, Weller and Spinner – i.e. couple dances with spinning as a distinguishing feature.

The Waltz is a dance in 3/4 time – with an accompaniment that has the feature of an Omm – Pah- Pah sounding bass line and chords.

Scandalous! - The dancing couples had to hold tight to each other to be able to keep up with the tempo and with their bodies close together – touching!

The Viennese Waltz is the fastest ballroom dance with the tempo at 180 beats per minute the slowest!

Johann Strauss II	

Johann Strauss II (born <u>Vienna</u>, <u>October 25 1825</u>; died <u>Vienna June 3 1899</u>) was

an Austrian composer, conductor and violinist. Strauss became very famous for his waltzes. He was known as the "King of the Waltz". His most famous one was called *The Blue Danube*.

Johann Strauss II wrote two operas: *Die Fledermaus* (*The Bat*) and *Zigeunerbaron* (*Gypsy Baron*). They are full of fun: lively music and jokes which can sometimes be made different in each performance: the singers can put in their own jokes about modern times.

Together with his brothers Josef and Eduard, Johann had complete control of the balls and concerts in the houses of the rich people in Vienna. Wherever he went he was surrounded by lots of admirers.

His waltzes are still as popular as ever, and millions of people in different countries hear them when they are played at the traditional New Year's Day concert in Vienna.

# Year 7 Religious Studies Spring Term Knowledge Organiser – Hindu Beliefs and Practice

Key	/ Vocabulary:		What do Hindus believe?	How do Hindus practice their religion?		
			8 Monotheism			
1	Brahman	Hindu term for 'God'. Brahman is present in all living things as part of the soul.	<ul> <li>Hindus believe that there is only one God: Brahman.</li> <li>Brahman is in every living thing as part of the atman, or soul. All living creatures deserve respect because they contain Brahman.</li> <li>9 Avatars</li> <li>It can be very difficult to understand Brahman, so</li> </ul>	<ul> <li>Holy Books         <ul> <li>Hindus follow many holy books, rather than just one authoritative text. These include books like the Laws of Manu, the Upanishads and the Vedas. These books contain stories, laws and teachings from Brahman.</li> <li>Worship</li> <li>Hindu worship can take place in a holy building or at home.</li> </ul> </li> </ul>		
2	Monotheist	Monotheist means 'believes in one God'. Hinduism is a monotheistic religion.	Hindus believe that there are thousands of avatars, or representations of God to help them understand. These gods and goddesses represent the different aspects of Brahman's nature.10Samsara	Many Hindu families will have shrines in their homes dedicated to certain gods and goddesses. Worship happens in lots of different ways, including meditation. Hindus will often use puja trays during worship.		
3	Trimurti	The Trimurti are the three main avatars, or aspects, of Brahman. Brahma, Vishnu and Shiva represent creation, preservation and destruction.	Samsara is the endless cycle of life, death and rebirth that all living things experience. Our actions result in karma, which can be good or bad, and our karma decides our next life. Hindus believe that by following the cosmic law, our souls can escape samsara and achieve perfect	15Holy BuildingsThe Hindu holy building is called the Mandir. There is always a place for Hindus to wash before worship, and usually a large main prayer hall with smaller prayer rooms surrounding it. Mandirs are used for other activities, like music classes, study groups and charity work too.		
4	Samsara	Samsara is the endless cycle of life, death and rebirth.	happiness (nirvana) where the soul is reunited with Brahman.	16 <b>Festivals</b> There are lots of Hindu festivals throughout the year but we will explore two of the most well-known: Diwali and Holi.		
5	Puja	Puja is the Hindu term for 'worship'. Hindus worship Brahman in lots of different ways, including meditation and prayer.	11ReincarnationHindus believe that our physical body is temporary, and that when we die the body has no purpose anymore.However our soul lives forever, and is reincarnated into a new living thing when we die. What we are reincarnated as depends on how good our karma is in our past lives.	Diwali is the festival of light and celebrates the story of the Ramayana. This is a story of good defeating evil, where Lord Ram saves his wife Sita from the demon King, Ravan. Each of the characters is an avatar, representing a different aspect of Brahman. Holi remembers the story of Holika and Prahlad, and is a festival that celebrates equality. During this festival, castes		
6	Mandir	The Mandir is the Hindu holy building and place of worship.	12 <b>Caste System</b> This is a cultural practice that was made illegal in India in the 1950s. Some Hindus believe that we are born	are ignored and everyone can celebrate together.		
7	Festival	A festival is a religious celebration that usually marks an important event in that religion.	into castes which decide our status in life. The Brahmin caste is at the top, followed by Kshatriyas, Vaishyas, Shudras and Dalits.	<ul> <li>Ashramas</li> <li>Hinduism teaches that there are four ashramas, or stages, in our lives:</li> <li>Brahmacharya (childhood)</li> <li>Grihastha (marriage)</li> <li>Vanaprastha (retirement)</li> <li>Sanyaas (wandering holy man)</li> </ul>		

### Year 7 Physical Education Spring Term Knowledge Organiser

Кеу	Vocabulary:		Physiology - The human body			
		an internal framework of	8 The skeleton			
1	Human Skeleton	bone, cartilage, or other rigid material supporting or containing the body of an animal or plant:	<ul> <li>The adult human skeleton consists of 206 bones.</li> <li>There are different types of bones, such as:</li> <li>Femur = long bone</li> <li>Scapula (shoulder blade) = flat bone</li> </ul>			
2	Functions	an activity that is natural to or the purpose of a person or thing:	<ul> <li>Vertebrae = irregular bones</li> <li>Patella (knee), carpels and tarsals = short bone</li> <li>Skull</li> <li>Clavicle (Collarbone)</li> </ul>			
3	Support	bear all or part of the weight of; hold up:	Sternum (Breastbone) Spine Radius Ulna			
4	Protection	The bones protect the vital organs	Femur Patella (Kneecap) Tibia			
		Warm up – to prepare your body and mind to perform				
5	Warm up Cool down	Cool down – to promote recovery to return the body back to pre work out level	<ul> <li>9 Functions of the Skeleton</li> <li>The skeleton has four main functions:</li> <li>to support the body</li> </ul>			
6	Skeletal muscle	Skeletal muscle is joined to bones. Its cells contract to	<ul> <li>to protect some of the vital organs of the bo to help the body move</li> <li>to make blood cells</li> </ul>			
		bend.	10 Muscles			
7	Contract Relax	Muscles work together so one relaxes and one contracts	Your muscles are made of bundles of muscle cells forming muscle tissue. Muscles can only contract relax, so they always work in pairs called antagonic muscles. Skeletal muscle is joined to bones. Its cell contract to make bones move and joints bend. The are over 650 muscles in the human body.			

here are different types of bones, such as: Femur = long bone Scapula (shoulder blade) = flat bone Vertebrae = irregular bones Patella (knee), carpels and tarsals = short bones							
	Skull Clavicle (Collarbone) Sternum (Breastbone) Spine		Humerus Ribcage Radius Ulna Patella (Kneecap) Fibula				

9	Functions of the Skeleton						
The • •	skeleton has four main functions: to support the body to protect some of the vital organs of the body to help the body move to make blood cells						
10	10 Muscles						
Your form relax	Your muscles are made of bundles of muscle cells forming muscle tissue. Muscles can only contract ar relax, so they always work in pairs called antagonisti						

ract and onistic nuscles. Skeletal muscle is joined to bones. Its cells ontract to make bones move and joints bend. There re over 650 muscles in the human body.

	Preparing for P.E							
11	11 Warming up							
Pulse raiser – GETING YOUR HEART RATE UP - Slow to fast Jogging / side stepping / heel flicks / high knees								
Stretch and exercise	e – MOBILISING MUSCLES AND JOINTS							
Stretch – the MAJOI Exercises - Star jump	R muscles you will use os / tuck jumps / squats / lunges							
Activity challenges Foxes and rabbits / Keep ball / rondo / p	- PREPARING THE MIND Tag piggy in middle							
12	Cooling down							
A cooldown is to p	promote recovery and return the body							
to a pre-exercise of	or pre-workout level.							
A relaxing range o stretching exercise	f S S S S S S S S S S S S S S S S S S S							
13	School focus							

RESPECT – BE polite and considerate Shaking hands after the game

**RESILIENCE** – Positivity Trying that skill again even though its difficult

ASPIRATION – belief in our self What can I do to improve my performance

	Year 7 Food Technology Spring Term Knowledge Organiser								
Key Vocabulary: Nutrition		Key	Key Vocabulary: Cooking		Ke	Key Vocabulary: The Eatwell Guide			
1	L The Eatwell Guide	A healthy eating model showing the types and proportions of foods needed in the diet.	1	cut, slice and chop		1	The Eatwell Guide		
2	2 Hydration	The process of replacing water in the body.	2	grate		2	Fruit and vegetables		
3	B Dietary Fibre	A type of carbohydrate found in plant foods.	3	peel		3	Potatoes, bread, rice, pasta or other starchy carbohydrates		
4	Combination Food	Food made with ingredients from more than one food group.	4	mix and combine	Ű	4	Dairy and alternatives		
5	5 Macronutrients	Nutrients needed to provide energy and as the building blocks for growth and maintenance of the body.	5	use the grill		5	Beans, pulses, fish, eggs, meat and other protein		
6	6 Micronutrients	Nutrients which are needed in the diet in very small amounts.	6	use the hob	888 201	6	Oil and spreads		
7	7 Food provenance	Knowing where food was grown, caught and raised. Knowing how food was produced and transported	7	use the oven		7	Foods high fat, salt and sugar		

# Year 7 Maths Knowledge Organiser - Place Value and ordering decimals and integers –Spring Term

Key	Vocabulary:		10 Integer Place Value	15 Decimal intervals on a number line			
1	Digits	The numerals used to form a number.	Billions         Millions         Thousands         Ones           H         T         O         H         T         O         H         T         O           H         T         O         H         T         O         H         T         O           J         J         J         4         8         O         J         J         O         2         9	One whole split into 10 parts makes tenths = 0.1 One tenth split into 10 parts makes hundredths = 0.01 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1			
2	Place Value	his is the value of each digit in a number dependent on where it is. E.g. the 5 in 350 represents 5 tens or 50; the 5 in 5,006 represents 5 thousands or 5000.	Placeholder Three billion, one hundred and forty-eight million, thirty-three thousand and twenty-nine	16 Decimals 0 ones 5 tenths 2 hundredths			
3	Range	The difference between the greatest value and the smallest value in a set of data.	11         Intervals on a number line           Image: Constraint of the state of the stat	0+0.1+0.1+0.1+0.1+0.1 +0.01+0.01 =0.52			
4	Median	The middle number in an ordered list.	Divide the difference by the number of intervals (gaps). E.g.: 100 ÷ 5 = 20 (The intervals go up in twenties) 12 Compare integers using < > = ≠	Ones     Tenths     hundredths       01     01     01			
5	Round	To make a number simpler, but keeping its value close to what it was.	< less than > greater than	0.3         0.23         0.3 > 0.23           18         Range (spread of values)			
6	Powers of 10	The result of multiplying 10 by itself a number of times to give a value such as 10, 100, 1000, 10 000 and so on.	= equal to       ≠ not equal to         13       Rounding to the nearest power of ten         If the number is halfway between we 'round up'	Difference between the greatest and the smallest. 3  9  8  12 Range = greatest value – smallest value 12 - 2 = 9			
7	Significant figures	Digits in a number that have value.	5495 to the nearest 1000       5475 to the nearest 100         5000       1       6000         5475 to the nearest 10       5400         5475 to the nearest 10	19     Median (the middle value)       Example 1: 4     3     9     8     12			
8	Power	This is written as a small number to the right and above the base number, indicating how many times to use the number in a multiplication. E.g. the 5 in 2 <sup>5</sup> .	14     Round to 1 significant figure (sf)       Round to the first non zero number	Put them in order: 3 4 8 9 12         Find the middle number: 3 4 8 9 12         Example 2: 150 154 148 137 160 158         Put them in order:			
9	Standard form	A number written in the form A x 10 <sup>n</sup> where A is at least 1 and less than 10, and n is an integer.	370 to 1 sf is 400 37 to 1 sf is 40	Find the middle number There are 2 middle numbers. Find the midpoint.			

# Year 7 - Spring Term Knowledge Organiser - Solving Problems with Multiplication and Division

Key Vocabulary:			9	Factors	
1	Multiply	The result of multiplying a number by an integer. The times tables of a number	A re	number that divides exactly into another number without a semainder. It is useful to write factors in pairs	13 Use formal methods to multiply integers Long multiplication column $326 \times 32 = 10,432$ Th H T O Make the unit 0 then carry on multiplication
2	Product	The result of a multiplication calculation.		Factors of 4         Factors of 36           I, 2, 4         I, 2, 3, 4, 6, 9, 12, 18, 36	$\begin{array}{c} 6 & 5 & 2 \\ + & 9 & 7 & 8 & 0 \\ 1 & 0 & 4 & 3 & 2 \\ 1 & 1 & 1 \end{array}$
3	Multiples:	Found by multiplying any number by positive integers	10 The r table	Multiples result of multiplying a number by an integer. The times es of a number Lowest Common Multiples LCM of 9 and 12 The first time ther Multiples match 9, 18, 27, 36, 45, 54 LCM - 36	14 Use formal methods to multiply decimals Multiply 0.03 by 1.1= 0.033 Multiply 0.03 by 1.1= 0.033 Multiply 0.03 by 1.1= 0.033
4	Factor	Integers that multiply together to get another number.	11	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<ul> <li>Multiply without decimal points: 3 × 11 = 33</li> <li>0.03 has 2 decimal places, and 1.1 has 1 decimal place, so the answer has 3 decimal places: 0.033</li> <li>15 Use formal methods to divide integers and decimals.</li> </ul>
5	Quotient	The result of a division	re	mainder. It is useful to write factors in pairs $100s 10s 1s \times 100$ $100s 10s 1s \times 100$ $3 \times 100 = 300$	$3584 \div 7 = 512$ $\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
6	Divisor	The number we divide by	12	1100 = 3	All give the same solution as represent the same proportion .Multiply the values in proportion until the divisor becomes ar integer.
7	Mean	The average of the all values, whereby all of the values are added together and then divided by the number of values.	Wh con big unit	en we vert from unit to small $mm \xrightarrow{x10} cm \xrightarrow{x100} m \xrightarrow{x1000} km$	16 Order of operations Brackets Indices or roots Break down the calculation using the order of operations.
8	Equivalent	Something that is essentially the same or equal to something else	mul we fror to b divi	tiply and if convert n small unit $g \xrightarrow{\times 1000} kg$ $ml \xrightarrow{\times 1000} L$ tig unit we de.	$\begin{array}{c c}  & & & & & \\ \hline & & & $

# Year 7 Key Stage 3 Knowledge Organiser Fraction, decimal and percentage equivalence.

Key Vocabulary:			10 Tenths and hundredths on a number line	13 Fractions on a number line			
1	Fraction	A number that compares equal parts of a whole. Each part of the whole is a fraction.	One tenth = $\frac{1}{10}$ = 0.1 0.1 $0.1$	One whole split         into 18 equal         parts.         18 is the         denominator         6 is the numerator         6         3			
2	Numerator	The top number in a fraction. This tells us how many of the equal parts are required.	$0 + \frac{1}{100} = 0.01$ One hundredth = $\frac{1}{100} = 0.01$ One whole split into 100 equal parts	$\frac{1}{18} = \frac{1}{9} = \frac{1}{3}$ 14 Convert fractions. Decimals and Percentages			
3	Denominator	The bottom number in a fraction. It tells us how many equal parts the whole has been split into.	11       Fractions on a diagram         The denominator is represented by equally sized parts – this shape is split into quarters	$ \frac{70}{100} \longrightarrow \begin{array}{c} \text{means} \\ 70 \div 100 \end{array} \longrightarrow \begin{array}{c} 70 \\ \text{hundredths} \\ = 70\% \\ \text{Using a} \\ \text{calculator} \end{array} $			
4	Per cent	Parts per hundred	12   Equivalent Fractions	↓ □ → s⇔D Convert to decimal			
5	Equivalent	Equal in value. E.g. 2+5 is equivalent to 4+1	1 whole	This will give you the answer in the simplest form Simple Pie Charts			
6	Quotient	The result of a division.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Split into 10 parts			
7	Convert	To change from one form to another. E.g. to convert from a fraction to a percentage.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10% = 36 °           Split into 2 parts           50% = 180 °			
8	Pie chart	A graph in which a circle is divided into sectors that each represent a proportion of the whole.	$\overline{8}$	A pie chart has 360° so all			
9	Sector	A part of a circle formed by two radii and a fraction of the circumference.	For Example $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{5}{10}$	360.			

### Year 7 Mathematics Knowledge Organiser – Solving Problems with Addition and Subtraction

#### **Key Vocabulary:**

1	Addition	To find the total of two or more numbers. Other words to describe addition include: 'add', 'plus', 'sum'.
2	Subtraction	To find the difference between two numbers. To find out how many are left when some are taken away.
3	Commutative	Changing the order of the operations does not change the result. This applies to addition and multiplication.
4	Integer	A whole number that can be positive, negative or zero.
5	Decimal	A number with a decimal point in it. Can be positive or negative.
6	Associative	When you add or multiply you can do so regardless of how the numbers are grouped.
7	Inverse	To perform the opposite operation. For example, the inverse of addition is subtraction.
8	Balance	The amount of money in an account.
9	Credit	Money that goes into an account.
10	Debit	Money that leaves an account.
11	Standard Form	A way to write very big numbers or very small numbers with one number before the decimal point, multiplied by a power of 10. It allows saying and calculating with very big numbers or very small numbers to be easier to handle.



Addition and multiplication can be done in any order; these are **commutative** calculations, for example:



However when subtracting the order does matter, for example:

9-3=6 which is not the same as 9-6=3

14					Fo	ormal Wi	itter	n Me	etho	ds
column method:										
261	+ 30	37 +	- 64	122			863	- 75		
		4	2	6	1			70	15	12
		3	0	3	7			ø	9	
	+	6	4	2	2		-		7	5
	1	3	7	2	0			7	8	8
•	1		1	1					<u> </u>	

8 Remember the place value of each column. When adding you may need to include the exchange in the next column. When subtracting you may need to exchange 10 units to the column below in order to be able to subtract.

<sup>1</sup>3

5

6

15	Formal Methods with	De	cim	als		
Colur	nn method:		7	7.83	+ 1	.6
Use o	olumns as when adding and					
subtr	acting integers. You may find it			7.	. 8	
usefu	I to add a place holder 0 to empty	+	1	6.	6	1
decir	al point acts as a placeholder and		2	4.	. 4	1
align	s the other values.		1	1		
-						

#### The perimeter is the length around the outside of a shape. For example, the perimeter of the guadrilateral is 16.7 mm. What is the length of the side marked x? P = 6.8 + 4.2 + 1.2 + x4.2 mm 16.7 = 12.2 + xx = 16.7 - 12.2 $x = 4.5 \, \text{mm}$ 17 Solve Problems with Finance Below is an example of a bank statement. Date Description Credit Debit Balance 254.76 1 Mar Opening Balance 3 Mar Wages 1.402.11 1.656.87 4 Mar Phone Bill 34.45 1.622.42 Here we can see the balance is the amount already in the

**Solve Problems with Perimeter** 

bank account at the beginning of the month. Wages are a credit, as that amount is paid into the account. The phone bill is a debit, so that amount is subtracted from the balance. 10

	18			Table	s and '	Timetables
I	Dista	nce T	Fables:			
	Aberde	een				A distar
	490		Cambridge			shows t
	355		149	Leeds		betwee

371

Standard form

16

667

19

343

distance table lows the distance etween two places.

 $= 7 \times 10^4$ 

To find the distance between Aberdeen and Leeds follow the arrows to where their row and column intersect to find the distance.

Truro

#### **Frequency Trees** A frequency tree is made up from part-whole models. One

piece of information leads to another. For example: There are 50 plastic triangles and squares in a bag. All of the shapes are red or green. Red There are 23 triangles. Triangle 12 of the squares are red. 60 There are 24 green shapes. Square To use this information to complete the frequency tree, start by filling in the given information and then fill in the gaps! 19 Standard Form Adding numbers in standard form. Writing large numbers For example:  $3 \times 10^4 + 4 \times 10^4$ in standard form.  $4,000 = 4 \times 1,000$ = 30,000 + 40,000 $=4 \times 10^{3}$ Ordinary form = 70,000