

Name:

Base Group:



Year 9 Knowledge Organiser

Autumn Term

Homework at Ipswich Academy

How to use the Knowledge Organiser

You have been provided with an exercise book and a knowledge organiser. Your knowledge organiser contains everything that you need to learn this term. Each week, you will be asked to learn a set of words, along with their definitions. You will talk about these in class.

In order to learn the words you will be expected to use :

'look, cover, write, check'

You have been given an exercise book to practise your homework in. The expectation is that you will write out neatly the words, along with their definitions. A week later, your teacher will check that you have completed your homework and you will be given a test to check that you have remembered everything.

This will be your homework for: Maths, English, Science, History, Geography and French.

You will need to remember:

- to take your exercise book and knowledge organiser to all lessons;
- to take your exercise book and knowledge organiser home each night;
- to write neatly;
- to practise every night.

If you do all of these, you will learn a lot.

MATHS**Number**

1	BIDMAS	brackets, indices, divide, multiply, add, subtract	8	index or power	the number of times a number is multiplied by itself
2	square number	number multiplied by itself	9	factor	divides into a number
3	multiple	in the times table	10	prime factors	factor that is a prime number
4	square root	inverse of finding the square of a number	11	prime factorisation	expressing a number as a product of its prime factors
5	prime number	has exactly two factors	12	product	the result of multiplying numbers together
6	estimate	approximation	13	reciprocal	1/ number
7	highest common factor	largest number that divides into a given number (HCF)	14	lowest common multiple	smallest number that is in the times table of two or more numbers (LCM)

Algebra

1	simplify	collect like terms	4	expand brackets	remove the brackets
2	identity	\equiv	5	factorise	take out the common factor
3	substitution	putting numbers where letters are			

MATHS

Rules of Indices

1	when multiplying $n^a \times n^b$	add indices $= N^{a+b}$	4	an index number to a power- multiply indices	$(N^a)^b = N^{ab}$
2	when dividing $n^a \div n^b$	subtract indices $= N^{a-b}$	5	any number to the power of zero =1	$N^0 = 1$
3	reciprocals	$N^{-1} = \frac{1}{N}$			

Handling Data

1	frequency	number of times a number occurs	7	interquartile range	upper quartile- lower quartile
2	median	middle value when terms are in order	8	scatter diagram	shows a link between data
3	median	$\frac{n+1}{2}$ th term	9	positive correlation	both sets of data increase together
4	mean	total \div frequency	10	negative correlation	as one set of data increases the other decreases
5	range	highest value-lowest value	11	no correlation	no link between the data

6	quartile	quarter value			
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English Language					
Paper 2 skills					
1	Question 1 is worth 4 marks and you should spend 4 minutes on it				
2	Question 2 is worth 8 marks and you should spend 12 minutes on it				
3	Q 1 skills	select and retrieve	10	connectives to show similarities	similarly in the same way likewise equally as with
4	Q2 skills	summarising, inference, comparing	11	Q2 and 3 key focus	content
5	showing inference 1	this suggests	12	Q 2. always remember	connectives quotes inference
6	showing inference 2	this implies	13	summary	a brief overview of the main points in the text

7	connectives to show differences	on the other hand whereas however nevertheless dissimilarly	14	close analysis	zoom in unpick connotations alternative connotations
8	zoom in	pick out a word or phrase	15	connotations	making links
9	unpick	detailed explanation	16	alternative connotations	thinking outside of the box

English Language					
Paper 2 skills					
1	Question 3 is worth 12 marks and you should spend 20 minutes on it				
2	Question 4 is worth 16 marks and you should spend 20 minutes on it				
3	Q3 skills	analysis of language	12	facts	something that can be proven true or false
4	Q4 skills	analysis of methods, comparison	13	juxtaposition	opposite ideas placed together
5	simile	comparing two things using like or as	14	tone	the attitude of "mood" of a piece of writing
6	metaphor	comparing two ideas using "is"	15	anecdotes	a small story that backs up your argument
7	personification	giving inanimate objects human qualities	16	alliteration	when several words close together start with the same letter

8	symbolism	use of a symbol to represent an idea	14	direct address	addressing the reader, using "you" or "your"
9	plosives	words with "p" and "b" sounds	15	rhetorical questions	a question that doesn't require a response
10	hyperbole	exaggeration	16	q. 3 and 4 key focus	methodology
11	semantic field	words that relate to the same topic	17	always remember	quotes zoom in on key words use subject terminology

LITERACY-vocabulary							
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
1	adequate	actual	actress	acquisition	acquire	adjust	Learn the spellings using look, cover, write, check.
2	advocate	adviser	advise	actor	activism	afford	
3	agricultural	aggressive	agenda	advertise	admire	agriculture	
4	allege	allegation	Allah	afterwards	afraid	alliance	
5	amateur	altogether	alter	alert	alcohol	amazing	Look up definitions to find out the meaning of each word.
6	analysis	amid	amendment	alongside	allied	analyst	
7	arrangement	associate	assistant	ambition	ambassador	arrival	
8	aspect	attorney	attach	Anglican	ancient	assault	
9	assumption	basically	authority	assistance	aside	assure	Write a
10	attractive	belief	barrier	atmosphere	assembly	auction	
11	beaten	breed	beginning	barely	athlete	beauty	

12	belong	Buddhism	breathe	beer	ballot	beneath	sentence for each word. Make sure you use the vocabulary words correctly.
13	brilliant	celebrate	Buddha	boost	bedroom	broadcast	
14	Buddhist	ceremony	charter	broker	bloody	burden	
15	celebration	Christ	cite	charity	broadcasting	cereal	

<u>LITERACY-vocabulary</u>							
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
1	chamber	civilian	colonel	circumstance	calculated	chaos	Learn the spellings using look, cover, write, check.
2	cigarette	column	comfortable	collective	characteristic	cinema	
3	clinic	command	communicate	comedy	circuit	code	
4	combat	communication	competitor	commissioner	colleague	combination	
5	commander	complaint	confident	competitive	combine	commentator	
6	comparison	confront	congressional	consequence	commerce	compensation	Look up definitions to find out the meaning of each word.
7	complicated	connection	considering	construction	compete	component	
8	conscience	consist	consult	continent	consciousness	conscious	
9	consistent	consultant	contract	convention	construct	constitution	
10	contemporary	contrast	conventional	convince	context	content	

11	contribute	conversation	cooperate	counsel	controversy	controversial	Write a sentence for each word. Make sure you use the vocabulary words correctly.
12	convert	corporation	counter	debut	conviction	convict	
13	corruption	counterpart	declaration	deficit	cough	cottage	
14	coup	definitely	define	deliberate	delegation	delegate	
15	definition	demonstrate	delight	depth	depression	deposit	

<u>Science</u>					
Microscopes and enzymes					
1	eyepiece lens	The part of the microscope you look down.	11	mitochondrion	A sub-cellular structure (organelle) in the cytoplasm of eukaryotic cells, where aerobic respiration occurs. Plural is mitochondria.
2	magnification	How much bigger something appears compared with its actual size.	12	nucleus	The 'control centre' of a eukaryotic cell.
3	objective lens	The part of the microscope that is closest to the specimen.	13	ribosome	Tiny sub-cellular structure that makes proteins.
4	resolution	Smallest change that can be measured by an instrument.	14	cell wall	A tough layer of material around some cells, which is used for protection and support.
5	stain	A dye used to colour parts of a cell to make them easier to see.	15	active site	The space in an enzyme where the substrate fits during an enzyme-catalysed reaction.
6	field of view	The circle of light you see looking down a microscope.	16	denatured	A denatured enzyme is one where the shape of the active site has changed so much that its substrate no longer fits and the reaction can no longer happen.

7	chloroplasts	A green disc containing chlorophyll, found in plant cells. Where the plant makes glucose, using photosynthesis.	17	lock-and-key model	Model that describes the way an enzyme catalyses a reaction when the substrate fits within the active site of the enzyme.
8	chromosome	A structure found in the nuclei of cells. Each chromosome contains one enormously long DNA molecule.	18	specific	Where an enzyme only reacts with one kind of substrate.
9	cytoplasm	The watery jelly inside a cell where the cell's activities take place.	19	enzyme	A substance that can speed up some processes in living things (e.g. breaking down molecules).
10	DNA	A substance that contains genetic information. Short for deoxyribonucleic acid.	20	standard form	A very large or very small number written as a number between 1 and 10 multiplied by a power of 10.

Science

Specialised cells and movement

1	adaptation	The features that something has to enable it to do a certain function (job).	11	active transport	The movement of particles across a cell membrane from a region of lower concentration to a region of higher concentration. The process requires energy.
2	ciliated epithelial cell	A cell that lines certain tubes in the body and has cilia on its surface.	12	diffusion	The movement of particles across a cell membrane from a region of higher concentration to a region of lower concentration. The process does not require energy.
3	epithelial cell	A cell found on the surfaces of parts of the body.	13	concentration	The amount of a solute dissolved in a certain volume of solvent. Measured in units such as g/cm ³ .
4	cilium	A small hair-like structure on the surface of some cells. Plural is cilia.	14	osmosis	The overall movement of solvent molecules in a solution across a partially permeable membrane, from a dilute solution to a more concentrated one.
5	diploid	Describes a cell that has two sets of	15	passive	A process that does not require energy is passive. A

		chromosomes.			passive process is the opposite of an active process (which requires energy).
6	haploid	Describes a cell that has one set of chromosomes.	16	semi-permeable	Describes something that will allow certain particles to pass through it but not others. Another term for 'partially permeable'.
7	specialised cell	A cell that is adapted for a certain specific function (job).	17	solute	The solid that has dissolved in a liquid to make a solution.
8	fertilisation	Fusing of a male gamete with a female gamete.	18	solvent	The liquid in which a substance dissolves to make a solution.
9	gamete	A cell used for sexual reproduction.	19	optimum pH	The pH at which an enzyme-catalysed reaction works fastest.
10	fertilisation	Fusing of a male gamete with a female gamete.	20	optimum temperature	The temperature at which an enzyme-catalysed reaction works fastest.

History

Conflict

1	trenches	a system of long, narrow excavation in the ground, the earth from which is thrown up in front to serve as a shelter from enemy fire or attack such excavations, with their embankments, etc.	6	armistice	an agreement made by opposing sides in a war to stop fighting for a certain time; a truce.
2	Western Front	The zone of fighting in western Europe in the First World War, in which the German army engaged the armies to its west, i.e. France, the UK (and its	7	Remembrance Day	Remembrance Day, or Armistice Day, is observed in Commonwealth states and elsewhere to remember members of the armed forces who have died in the line of duty. It is marked by the symbol of the

		dominions), and, from 1917, the US.			poppy, and at the 11th hour on the 11 November two minutes' silence is held.
3	Passchendaele	The Battle of Passchendaele, fought July 1917, is sometimes called the Third Battle of Ypres. For the soldiers who fought at Passchendaele, it was known as the 'Battle of Mud'.	8	legacy	an amount of money or property left to someone in a will.
4	Ypres	Ypres was one of the most famous/known battles of WWI, the reason being primarily due to the fact that in the second battle of Ypres, the debut of chlorine gas (poison gas) as a weapon was issued.	9	Wall Street Crash	When the Wall Street stock market crashed in October 1929, the world economy was plunged into the Great Depression.
5	memorial	something designed to preserve the memory of a person, event, etc., as a monument or a holiday.	10	Great Depression	By the winter of 1932, America was in the depths of the greatest economic depression in its history.

<u>History</u>					
Conflict					
1	Treaty of Versailles	The Treaty of Versailles was the peace settlement signed after World War One had ended in 1918 and in the shadow of the Russian Revolution and other events in Russia. The treaty was signed at the vast Versailles Palace near Paris – hence its title – between Germany and	6	unemployment	the state of being without a job.

		the Allies.			
2	dictator	a ruler with total power over a country, typically one who has obtained control by force.	7	poverty	the state of being extremely poor.
3	alliances	an agreement between two or more countries to support each other.	8	artillery	heavy guns. The Royal Artillery is the part of the army that uses them.
4	conscription	a law that forces all men (and sometimes women) to join the armed forces if and when they are needed.	9	dugout	a roofed shelter built into the wall of a trench.
5	dressing stations	a place for giving emergency treatment to the wounded.	10	Front line	The land nearest the enemy, where the fighting takes place.

Geography: Development and Tectonics

1	active volcano	A volcano that is currently erupting or showing signs of eruption, such as earthquakes or new gas emissions.
2	appropriate technology	Technology that is suited for the needs, skills, knowledge and wealth of the local people in the environment in which they live. It usually combines simple cheap ideas with readily available materials, especially for use in poorer countries, and environmentally friendly.
3	composite volcano	A steep-sided, dome-shaped volcano that erupts a variety of materials such as sticky acidic lava and ash. These occur at destructive plate margins.
4	conservative plate margin	Tectonic plate margin where two tectonic plates slide past each other.
5	constructive plate boundary	Tectonic plate margin where rising magma adds new material to the plates that are diverging (moving apart).
6	continental crust	The thicker part of the earth's crust.
7	convection currents	The circular movement of magma within the Earth's mantle.
8	core	The centre of the Earth mainly made of iron and nickel, and with a solid inner core and liquid outer

		core.
9	crust	The outer layer of the Earth's structure.
10	debt crisis	A situation where a country cannot pay its debts, often leading to calls to other countries for assistance. Many low-income countries are facing severe debt problems.
11	debt relief	When high-income countries write-off some low-income countries debt, or lower interest rates, so the low-income country has less to pay back.
12	destructive plate margin	Tectonic plate margin where two plates are converging or coming together and the oceanic plate is being subducted. It can also be associated with violent earthquakes and explosive volcanoes.
13	development	The progress of a country in terms of economic growth, use of technology and human welfare.
14	development gap	The difference in standards of living and well-being between the world's richest and poorest countries (between high-income and low-income countries)
15	globalisation	The process that has created a more connected world, with increases in the movements of goods (trade) and people (migration and tourism) worldwide.
16	earthquake	A sudden or violent movement within the Earth's crust followed by a series of shocks.
17	economic opportunity	A chance for people to improve their living standards through employment.

Geography: Development and Tectonics

18	geothermal energy	Energy generated by the heat stored deep in the Earth.
19	human development index	A method of measuring the development of a country by looking at a combination of information about the economy and social indicators (health, education). It can be used to compare how developed one country is against another.
20	infrastructure	The basic equipment and structures (such as roads, utilities, water supply, and sewerage) that are needed for a country or region to function properly.
21	international aid	Money, goods and services given by the government of one country to help improve the quality of life of people in another country.
22	literacy rate	The percentage of people who have basic reading and writing skills.
23	mitigation	Action taken to reduce or eliminate the risks to human life from natural hazards, such as building earthquake resistant buildings.
24	monitoring	Recording physical changes, such as earthquake tremors around a volcano, to help forecast when and where a natural hazard might strike.
25	natural hazard	A natural event (earthquake, volcanic eruptions, tropical storm, flood) that has the potential to cause destruction and death.
26	newly emerging economies.	Countries that have begun to experience high rates of development, especially industrial development.
27	oceanic crust	The thinner part of the Earth's crust.
28	planning	Actions taken to enable communities to respond to, and recover from, natural disasters through measures such as emergency evacuation plans and warning systems.
29	primary effects	The initial impact of a natural event on people or property, caused directly by it, for instance buildings collapsing in an earthquake.
30	richter scale	A logarithmic scale used for measuring the magnitude (strength) of an earthquake.
31	secondary effects	The after-effects that occur as an indirect impact of a natural event, such as people becoming homeless after buildings were destroyed in the earthquake.
32	shield volcano	A wide, low volcano that erupts basic, runny lava. Occurs at constructive plate margins.
33	subduction zone	The area in which an oceanic plate is pushed under a continental plate at a destructive plate margin.
34	tectonic plate	A rigid segment of the Earth's crust which can 'float' across the heavier, semi-molten rock below.

FRENCH MODULE 1

Sur Facebook - On Facebook

Je vais sur ma page perso	I go onto my home page	J'invite mes copains	I invite my friends	Je commente des photos.	I comment on photos./I leave comments on photos	On partage des photos	We share photos
Je lis mes messages	I read my messages	Je fais des quiz	I do quizzes	Je passe des heures	I spend hours.	On s'envoie	We send each other
Je poste des messages	I post messages	Je joue à des jeux	I play games	On organise des sorties	We arrange to go out	Des liens vers des vidéos	Video links
Je modifie mes préférences		I update my likes		Je regarde des photos		I look at photos	

Les adjectifs - Adjectives

arrogant(e)	arrogant	drôle	funny	gentil(le)	kind	lunatique	moody
beau/belle	good-looking/beautiful	égoïste	selfish	jaloux/jalousie	jealous	pénible	a pain
charmant(e)	charming	généreux/généreuse	generous	joli(e)	pretty	timide	shy

Les invitations - Invitations

Je vais/on va	Im/we're going to	faire un piquenique	have a picnic	Ça t'intéresse?	Are you interested?	il y a une séances à...	there's a showing at...
aller au cinéma/en ville	go to the cinema/into town	Tu viens avec moi/nous?	Are you coming with me/us?	On se retrouve où/à quelle heure?	Where/when shall we meet?	à plus	see you later.
aller à la patinoire/ à une fête	go to the skating rink/to a party	Tu veux m'/nous accompagner?	Do you want to come with me/us?	chez moi/toi	at my/your place	à demain /samedi	see you tomorrow/on saturday.
faire les magasins		go shopping					

Les reactions - reactions

Oui, merci. Je veux bien.	Yes, please. I'd like to.	Génial! Bonne Idée!	Great! Good idea!	Je n'ai pas trop envie.	I don't really want to.	C'est vraiment nul!	That's really rubbish!
D'accord, si tu veux	OK, if you like.	Pourquoi pas?	Why not?	Tu rigoles!	You're joking!	J'ai horreur de ça!	I hate that!

Quand? -When?

ce matin/soir	this morning/evening	samedi après-midi	saturday afternoon	hier	yesterday	le weekend dernier	last weekend
cet après-midi	this afternoon	dimanche soir	sunday evening	samedi dernier	last saturday	L'année dernière	last year
demain matin	tomorrow						

	morning						
Les sorties - Going out							
Je suis sorti(e) avec ...	I went out with ...	bavardé	chatted	joué au bowling	went bowling	bien rigolé	had a real laugh
Je suis/On est allé(e)(s) ...	I/We went ...	bu du coca	drank cola	mangé un hamburger	ate a burger	On a dansé ensemble.	We danced together.
au cinéma/à une fête/en ville	to the cinema/to a party/into town	fait les magasins	went shopping	regardé un dvd	watched a dvd	Je suis resté(e) à la maison.	I stayed at home.
J'ai/On a ...	I/We ...	fait une promenade	went for a walk				
Ça s'est passé comment? - How did it go?							
C'était ...	It was ...	intéressant/marrant	interesting/funny	affreux/bizarre	terrible/weird	nul/un désastre	rubbish/a disaster
cool/génial	cool/great	romantique/sympa	romantic/nice	ennuyeux/horrible	boring/horrible		
Les mots essentiels - High-frequency words							
très	very	vraiment	really	tout/toute/tous/toutes	all/every	tous les weekends	every weekend
assez	quite	avec	with	de temps en temps	from time to time	tout le temps	all the time
un peu	a bit	normalement	normally	quelquefois	sometimes	une fois/deux fois ...	once/twice ...
trop	too	en général	mostly	souvent	often	... par jour/semaine/mois	... a day/week/month
carrément	completely	d'habitude	usually	tous les jours	every day		
FRENCH MODULE 2							
Les parties du corps - Parts of the body							
la bouche	mouth	l'épaule (f)	shoulder	la jambe	leg	le pied	foot
le bras	arm	les fesses (fpl)	buttocks	la main	hand	la tête	head
le corps	body	le front	forehead	le nez	nose	le visage	face
le dos	back	le genou	knee	les oreilles (fpl)	ears	les yeux (mpl)	Eyes

On joue au paintball - We go paintballing							
Qu'est-ce qui s'est passé?	What happened?	le terrain	grounds	le matériel	materials	le fairplay	fairplay
Tu es touché(e)?	Have you been hit?	les billes (fpl)	paintballs	Les règles (fpl)	rules	le respect	respect
Où est-ce que tu es touché(e)?	Where have you been hit?	le casque	helmet				
Le sport et le fitness - Sport and fitness							
Pour arriver en forme, il faut ...	In order to get fit, you must ...	bien manger	eat well	être motivé(e)	be motivated	jouer dans une équipe	play in a team
Avoir un bon programme	have a good schedule	bien dormir	sleep well	faire du sport tous les jours	do sport everyday		
Tu aimes le sport? -Do you like sport?							
Le sport ...	Sport ...	est bon pour le moral	is good for morale	Ça me fatigue.	It makes me tired.	Il faut apprendre à suivre les règles.	You must learn to follow rules.
diminue le stress	decreases stress	est important dans la vie	is important in life				
Les opinions - Opinions							
À mon avis, ...	In my opinion, ...	Moi, je trouve ça très ennuyeux de ... (+ inf).	I find it very boring to ...	Je crois fermement que ...	I firmly believe that ...		
Manger sain - Healthy eating							
les boissons gazeuses	fizzy drinks	les gâteaux (mpl)	cakes	le pain	bread	le sel	salt
les céréales (fpl)	cereals	les légumes (mpl)	vegetables	le poisson	fish	les sucreries (fpl)	sweets/confectionary
les chips (fpl)	crisps	les légumes secs	pulses	les pommes de terre (fpl)	potatoes	la viande	meat
l'eau (f)	water	la nourriture salée	salty food	les produits laitiers (mpl)	dairy products	Manger équilibré	to have a balanced diet
les fruits (mpl)	fruit	les œufs (mpl)	eggs	le repas	meal		

Pour être en forme ...- In order to keep fit ...

Je ferai du sport.	I will do sport.	Je jouerai au foot.	I will play football.	Je ne boirai jamais de boissons gazeuses.	I will never drink fizzy drinks.	Je ne prendrai pas le bus.	I will not take the bus.
Je ferai trente minutes d'exercice par jour.	I will do 30 minutes' exercise a day.	Je mangerai équilibré.	I will eat a balanced diet.	Je ne jouerai plus à des jeux vidéo.	I won't play with video games any more.	Je prendrai les escaliers.	I will take the stairs.
J'irai au collège à vélo et pas en voiture.	I will go to school by bike and not by car.	Je marcherai jusqu'au collège.	I will walk to school.	Je ne mangerai plus de frites/hamburgers.	I will not eat chips/hamburgers anymore.	Je prendrai des cours d'arts martiaux.	I will take martial-arts classes.

Les mots essentiels - High-frequency words

alors	so/then	d'abord	first	ensuite	then	pour le futur	for the future
au moins	at least	de bonne heure	early	finalement	finally	quand	when
c'est-à-dire	that is to say	deux fois par semaine	twice a week	où	where	tous les jours	every day
ce qui veut dire	which means	donc	so	peut-être	perhaps	Voilà!	That's that!/ Here you are! /There you go!
chaque	each						