WOOTTON PARK

FOUNDATION FOR GROWTH

'Ipsum quod faciendum est diutius'

Knowledge Maps

Term 3

Subject: Maths – 9D, A & B (Higher)	Term: 3	Topic: Year 9 Units 3&4

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'Ipsum quod faciendum est diutius durant'

Overview

In this term, learners will be studying up to two units which will include the topics of interpreting and representing data and fraction, ratio and percentages.

Key skills:

Interpreting and representing data

Prior knowledge check
Statistical diagrams 1
Time series
Scatter graphs
Line of best fit
Averages and range
Statistical diagrams 2
Problem-solving: Pollution particulates

Fractions, ratio and percentages

Prior knowledge check
Fractions
Ratios
Ratio and proportion
Percentages
Fractions, decimals and percentages
Problem-solving

Key Terms:

Unit 3:

Stem and leaf
Scatter
Outlier
Scatter graph
Correlation
Bivariate data
Time-series
Frequency polygon
Modal
Interpolation
Extrapolation

Unit 4:

Depreciate
Direct proportion
Simple interest
Ratio
Value Added Tax (VAT)
Reciprocal
Income
Recurring decimals
Percentage change
Percentage loss

Unit 4:

Key point 1

The **reciprocal** of the number n is $\frac{1}{n}$. You can also write this as n^{-1}.

Example 4

Write $0.\dot{3}$ as a fraction.

$0.\dot{3} = 0.333333333... = n$ — Call the recurring decimal n.

so $10n = 3.333333333...$ — Multiply the recurring decimal by 10 to shift the sequence one place left.

$10n - n = 3.333333333... - 0.333333333...$

$= 3.000000000...$ — Subtract the value of n from the value of $10n$. This makes all the numbers after the decimal point 0.

$9n = 3$

$n = \frac{3}{9}$ — Solve the equation.

$n = \frac{1}{3}$ — Simplify the fraction if possible.

Key point 9

All recurring decimals can be written as exact fractions.

Example 1

Work out $4\frac{1}{2} - 1\frac{4}{5}$

$4\frac{1}{2} - 1\frac{4}{5} = \frac{9}{2} - \frac{9}{5}$ — Write both numbers as improper fractions.

$= \frac{45}{10} - \frac{18}{10}$ — Write both fractions with a common denominator.

$= \frac{27}{10}$

$= 2\frac{7}{10}$ — Write the answer as a mixed number.

Example 2

Share £126 between Lu and Katie in the ratio 2:5.

2 + 5 = 7 parts — Find out how many parts there are in total.

1 part = £126 ÷ 7 = £18 — Find out how much one part is worth.

Lu: 2 × £18 = £36

Katie: 5 × £18 = £90 — Find 2 parts and 5 parts.

Check: £36 + £90 = £126 ✓

1 : 3 2 : 5 4 : 7 6 : 15 5 : 7.5

Key point 7

Percentage loss (or profit) = $\frac{\text{actual loss (or profit)}}{\text{original amount}} \times 100$

Key point 6

You can calculate a percentage change using the formula

percentage change = $\frac{\text{actual change}}{\text{original amount}} \times 100$

Key point 8

You can use inverse operations to find the original amount after a percentage increase or decrease.

Example 3

In one year, the value of a car dropped by 12% to £9240.
How much was the car worth at the start of the year?

100% − 12% = 88% = 0.88

Original number → [×0.88] → 9240

9240 → [÷0.88] → 10500 — Draw a function machine

The car was worth £10 500 at the start of the year.

It is often easier to write a number as an improper fraction before doing calculations

Subject: Maths – 9D, A & B (Higher)	Term: 3	Topic: Year 9 Units 3&4

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Websites and further reading

- Pearson Active Learn: http://pearsonactivelearn.com
- Maths Watch: http://mathswatch.co.uk/
- BBC Bitesize: http://www.bbc.co.uk/education/subjects/zqhs34j
- Numeracy and Foundation level practice questions and answers: https://corbettmaths.com/5-a-day/gcse1/
- Maths quiz: http://www.educationquizzes.com/ks3/maths/
- KS3 online tests: http://www.romsey.hants.sch.uk/maths/ks3onlinetests.htm

Unit 3:

Key point 1

A **back-to-back stem and leaf diagram** compares two sets of results.

Example 1

The annual salaries of employees working in an ICT company are displayed in the back-to-back stem and leaf diagram.

Key Male: 8 | 1 represents a salary of £18 000 Female: 1 | 9 represents a salary of £19 000

Male					Female			
			8	1	9	9		
9	5	2	0	2	1	2	6	7
8	7	3	0	3	0	4	4	
				4	5	6		
				5	4	8		

Compare the distribution of salaries of the male and female employees.

Male range: 38 000 – 18 000 = £20 000

Female range: 58 000 – 19 000 = £39 000

There are 9 males, so median male salary is: $\frac{9+1}{2}$ = 5th value = £29 000

There are 13 females so median female salary is: $\frac{13+1}{2}$ = 7th value = £30 000

Female employees' salaries have a larger range but the median salaries of men and women are similar.

Write a sentence comparing ranges and medians.

Key point 3

To draw a frequency polygon, plot the frequency against the midpoints for each group.

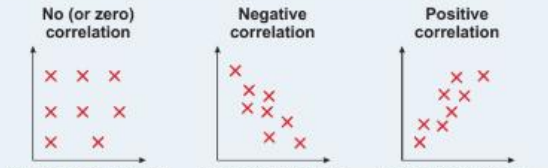
Key point 8

Using a line of best fit to predict data values within the range of the data given is called **interpolation** and is usually reasonably accurate.

Using a line of best fit to predict data values outside the range of the data given is called **extrapolation** and many not be accurate.

Key point 6

A scatter graph shows a relationship or correlation between variables.



No linear relationship between x and y.

Points lie close to a downward-sloping straight line. As x increases y decreases.

Points lie close to an upward-sloping straight line. As x increases y increases.

Example 4

The table shows the times, T, taken for 100 people to queue for a rollercoaster at a theme park.

a Estimate the mean waiting time.

b Explain why the mean is only an estimate.

The third column gives an estimate of the waiting time in each class.

a

Time, T (mins)	Frequency, f	Class midpoint, x	xf
$0 \leq T < 20$	14	10	$10 \times 14 = 140$
$20 \leq T < 40$	55	30	$30 \times 55 = 1650$
$40 \leq T < 60$	31	50	$50 \times 31 = 1550$
Total	100		3340

The fourth column gives an estimate of the total waiting time in each class.

Mean = $\frac{\text{sum of waiting times}}{\text{total number of people}} = \frac{3340}{100}$

= 33.4 minutes

b The mean is an estimate because we don't know the exact times taken.

Key point 2

To draw a **frequency polygon** you can join the midpoints of the tops of the bars in a frequency diagram with straight lines.

Key point 4

A **time series** graph is a line graph with time plotted on the horizontal axis.

Subject: English (Year 9)	Term: 3	Topic: English Language Paper 1 & 2 Section B (Writing)

English Language Paper 1 Section B- Descriptive and Narrative Writing

In Section B of the English Language Paper 1, you will be asked to write either a DESCRIPTIVE or NARRATIVE based piece. This is worth 50% of marks for the paper and will last for 45 minutes.

Example Question:
Write a description of a scene inspired by this image.

AO5 Content and Organisation

Level 4	**24 23 22 21 20 19**	**Content** • Communication is convincing, compelling • Tone, style, register assuredly matched to PAF • Extensive and ambitious vocabulary with sustained crafting of linguistic devices **Organisation** • Highly structured ,developed writing, a range of integrated and complex ideas • Varied and inventive use of structural features
Level 3	**18 17 16 15 14 13**	**Content** • Communication is consistently clear & effective • Tone, style and register matched to purpose, form and audience • Increasingly sophisticated vocabulary and phrasing , chosen for effect with a range of appropriate linguistic devices **Organisation** ▪ Writing is engaging with a range of detailed connected ideas ▪ Effective use of structural features
Level 2	**12 11 10 9 8 7**	**Content** • Communication is mostly successful • Sustained attempt to match purpose, form and audience; some control of register • Conscious use of vocabulary with some use of linguistic devices **Organisation** • Increasing variety of linked and relevant ideas • Some use of structural features
Level 1	**6 5 4 3 2 1**	**Content** • Simple success in communication of ideas • Simple awareness of purpose, form and audience; limited control of register • Simple vocabulary; simple linguistic devices **Organisation** • One or two relevant ideas, simply linked • Random paragraph structure • Evidence of simple structural features

AO6 Technical Accuracy

Level 4	**16 15 14 13**	• Sentence demarcation is consistently secure and accurate • Wide range of punctuation is used with a high level of accuracy • Uses a full range of appropriate sentence forms for effect • Uses Standard English consistently and appropriately • High level of accuracy in spelling, including ambitious vocabulary • Extensive and ambitious use of vocabulary
Level 3	**12 11 10 9**	• Sentence demarcation is mostly secure and accurate • Range of punctuation is used, mostly with success • Uses a variety of sentence forms for effect • Mostly uses Standard English appropriately • Generally accurate spelling, including complex and irregular words • Increasingly sophisticated use of vocabulary
Level 2	**8 7 6 5**	• Sentence demarcation is usually secure • Some control of a range of punctuation • Attempts a variety of sentence forms • Some use of Standard English with some control of agreement • Some accurate spelling of more complex words • Varied use of vocabulary
Level 1	**4 3 2 1**	• Occasional use of sentence demarcation • Some evidence of conscious punctuation • Simple range of sentence forms • Occasional use of Standard English with limited control of agreement • Accurate basic spelling • Simple use of vocabulary

Websites:

GCSE Bitesize:
https://www.bbc.com/bitesize/guides/zy47xsg/revision/1

AQA:
https://www.aqa.org.uk/subjects/english/gcse/english-language-8700

Subject: English (Year 9)	Term: 3	Topic: English Language Paper 1 & 2 Section B (Writing)

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English Language Paper 1 Section B
Descriptive and Narrative Writing

The key to great descriptive and narrative writing is PLANNING! You can use some of these tips to help you plan a great creative response.

1) Structuring a Story

Most fictional (and non-fictional) stories follow a recognisable pattern. One pattern that is familiar to readers is the five-stage story arc. This structure is also used in films and television shows.

A five-stage story arc takes the reader through the following stages:

exposition - an opening that hooks the reader and sets the scene

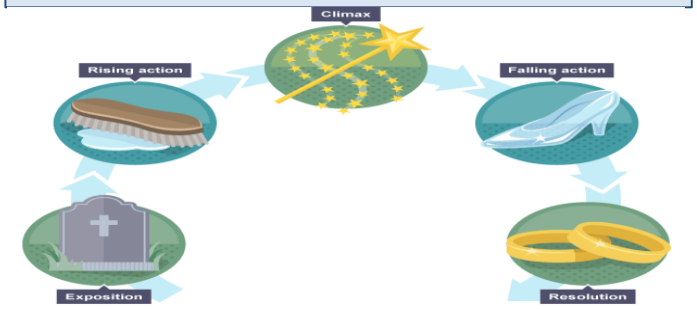
rising action - builds tension

climax, or turning point - the most dramatic part of the story

falling action - realises the effects of the climax

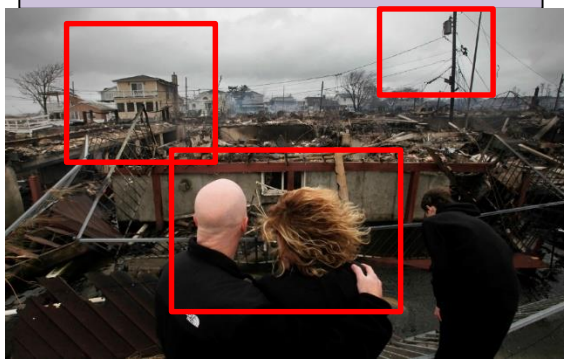
resolution - the story is concluded

Think back to the last book you read - where were the five points to the story?



2. Box Planning

When exploring the image in the question, you could use box planning to help focus your descriptions or narratives on different elements or focus areas



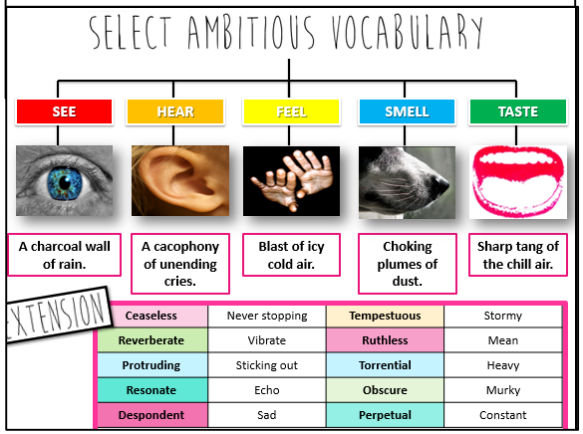
3) Selecting your Vocabulary Carefully

Linguistic Devices:

Metaphor
Simile
Personification
Allusion
Figurative language
Imagery
Sensory detail
Alliteration
Sibilance
Assonance

Structural Devices:

Simple/complex sentences
Foreshadowing
Flashback
Temporal shifts
Macro/Micro focus
Paragraphing for effect



Subject: English (Year 9)	Term: 3	Topic: English Language Paper 1 & 2 Section B (Writing)

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English Language Paper 2 Section B- Discursive Writing

The key to great discursive writing is PLANNING! You can use some of these tips to help you plan a great response.

Introduction to writing non-fiction

Texts that deal with facts, opinions and the real world are usually described as non-fiction. Different text types, or forms of non-fiction have particular **conventions**. These are the typical or expected features of a form and include structure, language and tone. For example, a newspaper article usually has a headline, uses formal language and takes a serious tone. A political speech usually addresses the audience directly, includes persuasive language and often has a rousing tone.

With all writing tasks it is important to consider:

- the conventions of the form
- your intended audience (reader)
- the purpose of your writing

Example Question

Trump has stated that he believes a fifth of teachers should carry weapons and be trained in marksmanship to combat school shootings.

Write a **letter** to **Donald Trump**, **arguing your point of view on this statement.**

Success Criteria

- Persuasive techniques
- Interesting structural features
- Matched to the TAP
- Engaging vocabulary
- Engaging writing
- Discourse markers
- Language techniques
- Personality comes through
- Paragraphs

- Sentence starters
- A **range** of punctuation
- Paragraphs
- Variety of sentence types/lengths
- Standard English
- Accurate spelling
- Sophisticated vocabulary

LANGUAGE EXAMPLES	STRUCTURE EXAMPLES
Word classes (verbs, adverbs, adjectives, nouns, pronouns)	Juxtaposition/ Contrasts
Imagery (olfactory, gustatory, auditory, visual, tactile, kinaesthetic, colour, nature)	Tension
Metaphor	Narrative Voice
Simile	Suspense
Personification	Punctuation
Alliteration	Paragraphing
Tense (past, present, future)	Sentence Types (simple, compound, complex)
Irony	Sentence Functions (declarative, interrogative, imperative, exclamative)
Hyperbole	Lists
Dialogue	Sentence Lengths
Statistics/Facts	Semantic Fields
Emotive Language	Repetition
Triplets	Cliff-hanger
Anecdotes	Cyclical structure
Rhetorical Questions	Expert Opinions
Puns	

Subject: Science	Term: 2	Topic: Year 9 Physics: Particles at work

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I already know from KS3…	I will learn
There are two types of electric charge	How to calculate the charge flow in an electric circuit
Potential difference is measured in volts and current is measured in amperes	How to work out the resistance and potential difference in an electric circuit
A cell or battery pushed electrons round a circuit	How mains electricity differs from electricity supplied by batteries
Power is how much energy is transferred per second	How to calculate the power of an electrical appliance
Mass is the amount of matter in a substance and is measure in kilograms	What we mean by density and how we can measure it
Gas particles move about very quickly and collide with the surface of the gas container	How to explain why the pressure of a gas increases when it is heated in a sealed container
The nucleus of an atom is composed of protons and neutrons	How an unstable nucleus changes when it becomes stable and why the radiation it gives out is harmful.
Energy is released when hydrogen nuclei fuse together in th Sun	What nuclear fission and fusion are

Required practical's:

3. Investigating resistance P4.3 P4.6
4. Investigating different components P4.4
5. Measuring the density of a solid object and of a liquid P6.1

Term 2 Physics Key Words

Year 9 (Electric circuits)
Static electricity
Protons
Neutrons
Ion
Electric field
Electrons
Potential difference
Resistance
Ohm
Diode
Thermistor

Subject: Science	Term: 3	Topic: Year 9 Physics: Electric Circuits

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P4.1 Electrical charges and fields

When you rub a balloon and it sticks to the ceiling, the rubbing action charges the balloon with **static electricity**.

Inside the atom there are **protons** and **neutrons**, the **electrons** move around the space around the nucleus.

When we rub something like a balloon we turn it into an **ion.**

An ion is made by

- adding electrons to make it negative
- Removing electrons to make is positive

This can be done by friction, like in the diagram →

When two objects are charged each creates and **electric field** around itself. If objects have **oppositely charged** electric fields, the two objects will **attract**. If objects have the **same charge** the two objects **repel**.

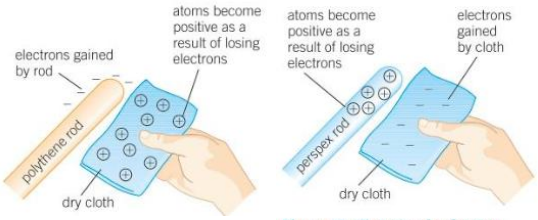


Figure 2 *Charging by friction*

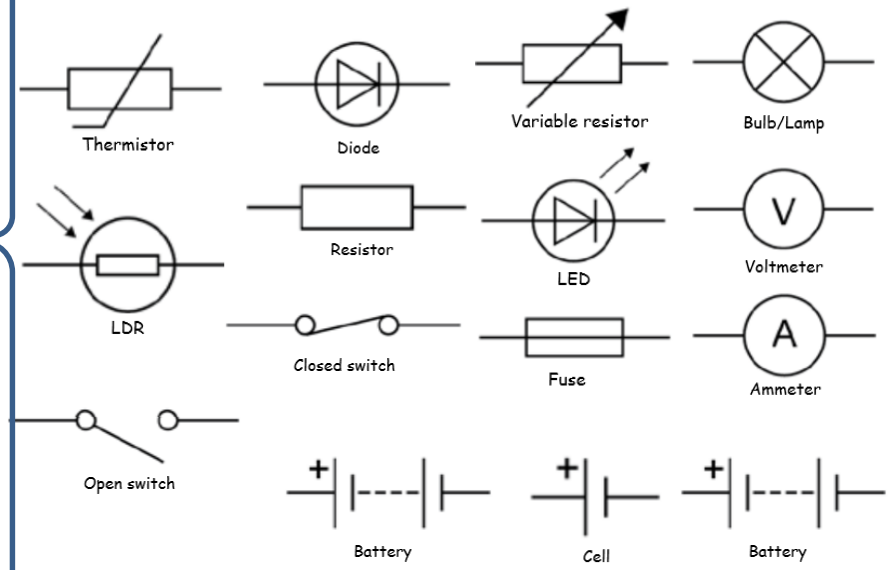
P4.2 Current and Charge

Make sure you know the symbols and their names →

An **electric current** is a *flow of charge*. When an electrical appliance is on, millions of **electrons** pass through the torch bulb every second.

The size of an electric current is the rate of flow of electric charge.

$$\boldsymbol{Charge\ flow, Q = current, I \times time\ take, t}$$
$$(couloumbs, C) \quad (amperes, A) \quad (seconds, s)$$



P4.3 Potential difference and resistance

Potential difference:

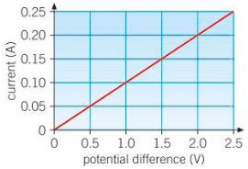
- It is measured by a voltmeter, in volts (V)
- Voltmeters are connect in parallel

$$Potential\ difference\ across\ a\ component, V = \frac{energy\ transferred, E}{charge, Q}$$

$$Resistance, R = \frac{Potenical\ difference, V}{Current, I}$$

Ohms Law:

The current through a resistor at constant temperature is directly proportional to the potential difference across the resistor



Subject: Science	Term: 3	Topic: Year 9 Physics: Electric Circuits

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P4.4 Component characteristics

Have you ever switch a light bulb on only to hear it pop and fail? Electrical appliances can fail at time, this can happen because too much current passes through a component in the appliance.

Using current-potential difference graphs

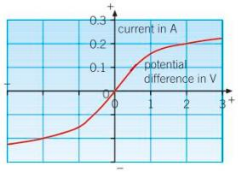
A filament lamp

- The line curves away from the y-axis. So, the current is not directly proportional to potential difference. The filament lamp is a non-ohmic conductor.
- The resistance increases as the current increases
- Reversing p.d. reverses the current.

The diode

The current through a diode flows in one direction only, called the forward direction.

- In the forward direction, the line curves towards the y-axis. So the current is not directly proportional to the p.d. Resistance changes as current changes. A **diode** in a non-ohmic conductor. In the reverse direction the current I virtually zero.



Thermistors and Light Dependent Resistors (LDR)

Thermistor - temperature dependent resistor, and its resistance decreases if its temperature increases.

LDR – resistance of LDR decreases if the light intensity increases.

P4.5 Series circuits

In a series circuit the same current passes through each component. In a series circuit, the total potential difference of the power supply is shared between the components.

Cells in series – the total potential difference of cells in series is the sum of the potential difference of each cell.

Resistance rule for components in series:
The total resistance of two (or more) components in series is equal to the sum of the resistance of each component.

$$Total\ resistance, R_{total}\ (\Omega) = R_1 + R_2$$

P4.6 Parallel circuits

The total current through the whole circuit is the sum of the currents through the separate branches.

For components in parallel, the potential difference across each component is the same.

$$Current, I = \frac{potential\ difference, V}{component\ resistance, R}$$

The total resistance of two (or more) components in parallel is less than the resistance of the resistor with the least resistance.

P5.1 Alternating current

Direct current is when the current only flows in one direction.

Alternating current is when the current repeatedly reverses its direction,

Frequency – the number of cycles it passes through each second. It is measure in Hertz, Hz.

Every mains circuit has a **live wire** and a **neutral wire**. The live wire is dangerous as it its potential changes repeatedly form + to – every cycle. It can reach 325V.

The National Grid

The national grid is a nationwide network of cables and transformers. A power station typically generates electricity at an alternating potential difference of about 25 000 V.

- *Step-up transformers* – used to make the size of the alternation potential difference much bigger (25 000 → 132 000V)
- *Step-down transformers* – used to make the size of the alternation potential difference much smaller again.

Subject: Science	Term: 3	Topic: Year 9 Physics: Electric Circuits

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P5.2 Cables and plugs

Inside a plug there is a live wire, a neutral wire and an **Earth wire.** The earth wire is connected to the earth. This stops a metal case becoming live if the live wire breaks and touches the case.

The plug also contains a fuse. If too much current passes through the wire in the fuse, it melts and cuts of the live wire.

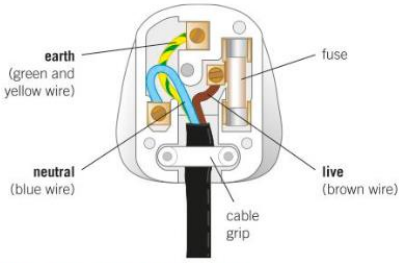

Figure 2 *Inside a three-pin plug*

P5.3 Electrical Power and Potential difference

$$Power, P\ (Watts, W) = \frac{energy\ transferred, E\ (joules, j)}{time, t\ (seconds, s)}$$

Or, $E = P\ \times t$

Power, in watts, is the amount of energy it transfers in joules per second.

$$Power\ supplies, P = curent, I\ \times potential\ difference\ (V)$$

Choosing a fuse – when choosing a fuse you can use the power rating and its p.d. to ensure you select the correct one.

P5.4 Electrical currents and energy transfer

$$Charge\ flow, Q = current, I\ \times time, t$$
$$(coulombs, C) = (amperes, A) \times (seconds, s)$$

When charge flows through a resistor, energy is transferred to the resistor, so the resistor becomes hotter.

P5.5 Appliances and efficiency

Efficiency is how well an appliance can convert input energy into useful energy.

$$Efficiency = \frac{its\ output\ power}{its\ input\ power}(\times 100)$$

Worked example

A 230V, 12 A electric motor in a machine has an efficiency of 60%. Calculate:

a the electrical power supplied to it

b the output power of the motor

c the energy per second wasted by the motor.

Solution

a power supplied = current × potential difference = 12 A × 230 V = 2760 W

b efficiency as a ratio = 60% ÷ 100 = 0.60
output power = efficiency × input power = 0.60 × 2760 W = 1660 W

c energy wasted per second = 2760 W – 1660 W = 1100 W

P5.5 Appliances and efficiency

You can use the equation below to work out the energy, in joules, transferred to a mains appliance in a given time:

$$\boldsymbol{Energy\ transferred\ fromt\ he\ mains, E = Power, P\ \times time, t}$$
$$(joules, J) = (Watts, W) \times (seconds, s)$$

To calculate the power supplied to an electrical appliance use the following equation:

$$\boldsymbol{Power, P = current, I\ \times potential\ difference, V}$$
$$(watts, W) = (amperes, A) \times (volts, V)$$

Subject: Spanish	Term: 3/4	Topic: Viva AQA **GCSE**; Módulo 2: Theme 3 – La educación y el colegio– Education & school

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Key Content 1 – El uniforme *(uniform)*

Saying if you wear uniform

Understanding the differences between Spain and UK

Understanding pros and cons of uniform

Reviewing Y8 content

Key Content 2 – Las asignaturas *(School Subjects)*

Saying what you study and describing your timetable

Giving opinions on teachers, subjects etc.

Saying what you chose, what you used to study and describing options

Key Content 3 – Mi insti *(my school)*

Describing school facilities
Describing positives and negatives of school structures

Key Content 4 –Las normas *(The school rules)*

Saying what you can and cant't do

Saying what your opinión on school rules is

Saying what you have to do

Key Content 6 – Actividades y planes del futuro *(activities and future plans)*

Saying clubs and activities you attend

Describing what your future plans are

Using the future and conditional tenses/structures to say what you are going to do/would like to do

Activities

Designing an ideal uniform

Writing a subject survey or timetable description

Designing an ideal school. Creating a school advert.

Designing a clubs guide

Devising school rules

Websites and further reading:

Search on www.quizlet.com for 'Viva GCSE, M2' or 'colegio/instituto'
Use the first module in your textbook and on www.pearsonactivelearn.com
Use www.spanishrevision.co.uk and practise the preterite tense and holidays tasks
Use www.languagesonline.org and complete grammar tasks

Key Content 5 – ¿Cómo vas al cole? *(How do you go to school?)*

Talking about the journey to school

Saying what you think of different forms of transport

Key Vocabulary & Skills

Over the first two terms we will look at part of Theme 3 from the GCSE. We will start the GCSE course. Some of the vocab and structures will be familiar from Y8. This is Module 1 in the orange VIVA AQA GCSE Book. **You have access to F & H levels online.**

We will review: Present tense regular verbs; Preterite (past) tense; Opinions; Frequency; Using the future tense

We will learn: More complex opinion structures; The imperfect tense (used to be); How to use tenses together; How to use language in spoken conversation in a real-life situation.

We will apply GCSE skills of: Writing in more than one tense; Narrating events & adding description; Doing role-play

¿Te interesa(n)…?	*Are you interested in…?*	la tecnología	*technology*
el arte dramático	*drama*	los idiomas	*languages*
el dibujo	*art / drawing*	las empresariales	*business studies*
el español	*Spanish*	las matemáticas	*maths*
el inglés	*English*	las ciencias	*science*
la biología	*biology*	la asignatura	*subject*
la educación física	*PE*	¿Qué opinas de…?	*What do you think of…?*
la física	*physics*	me encanta(n)	*I love*
la geografía	*geography*	me chifla(n)	*I love*
la historia	*history*	me interesa(n)	*I'm interested in*
la informática	*ICT*	me gusta(n)	*I like*
la lengua	*language*	no me gusta(n)	*I don't like*
la química	*chemistry*	odio	*I hate*
la religión	*RE*	prefiero	*I prefer*

¿Cómo son tus profes?	*What are your teachers like?*		
Mi profe (de inglés) es…	*My English teacher is…*	aburrido/a	*boring*
joven	*young*	gracioso/a	*funny*
viejo/a	*old*	serio/a	*serious*
severo/a	*strict*	simpático/a	*nice / friendly*
tolerante	*easy-going*	antipático/a	*unfriendly*
impaciente	*impatient*	más divertido/a que	*more fun than*
paciente	*patient*	menos creativo/a que	*less creative than*
interesante	*interesting*	tan interesante como	*as interesting as*

¿Qué llevas en el insti?	*What do you wear at school?*	rojo	*red*
(No) llevo…	*I (don't) wear…*	morado / violeta	*purple*
(No) llevamos…	*We (don't) wear…*	naranja	*orange*
Tengo que llevar…	*I have to wear…*		

Year 9 – Key Vocab – Term 3

AQA GCSE Theme 3

You can access the full vocab lists for HIGHER and FOUNDATION on the exam board website…

You can practise GCSE topics on www.spanishrevision.co.uk

¿Cómo es tu insti?	What is your school like?
En mi insti hay…	*In my school there is…*
Mi insti tiene…	*My school has…*
un salón de actos	*a hall*
un comedor	*a canteen*
un campo de fútbol	*a football pitch*
un patio	*a playground*
un gimnasio	*a gym*
una piscina	*a pool*
una biblioteca	*a library*
una pista de tenis	*a tennis court*
unos laboratorios	*some laboratories*
muchas aulas	*lots of classrooms*
Mi instituto / colegio es…	*My school is…*
mixto	*mixed*
femenino / masculino	*all girls / all boys*
público / privado	*state / private*
El edificio es…	*The building is…*
Los edificios son…	*The buildings are…*
nuevo(s)	*new*
antiguo(s)	*old*
moderno(s)	*modern*
amplio(s)	*spacious*
pequeño(s)	*small*
feo(s)	*ugly*
atractivo(s)	*attractive*
lo bueno / malo es que…	*the good / bad thing is that…*
lo mejor / peor es que…	*the best / worst thing is that…*
ni…ni…	*(n)either…nor…*
nada	*nothing / anything*
tampoco	*not either*
En mi escuela primaria…	*In my primary school…*
(no) había…	*there was/were (not any)…*
exámenes	*exams*
deberes	*homework*
instalaciones (deportivas)	*(sports) facilities*
actividades extraescolares	*extra-curricular activities*
la educación infantil	*pre-school education*
la educación primaria	*primary education*
la educación secundaria	*secondary education*
el bachillerato	*A levels*
la formación profesional	*vocational training*
el instituto	*secondary school*

Tenemos que llevar…	*We have to wear…*	rosa	*pink*
un jersey (de punto)	*a (knitted) sweater*	azul	*blue*
un vestido	*a dress*	verde	*green*
una camisa	*a shirt*	gris	*grey*
una camiseta	*a t-shirt*	marrón	*brown*
una chaqueta (a rayas)	*a (striped) jacket*	oscuro / claro	*dark / light*
una chaqueta de punto	*a cardigan*	a rayas / a cuadros	*striped / checked*
una corbata	*a tie*	bonito / feo	*pretty / ugly*
una falda	*a skirt*	cómodo / incómodo	*comfortable / uncomfortable*
unos pantalones	*trousers*	formal / informal	*formal / informal*
unos calcetines	*socks*	elegante	*smart*
unos zapatos	*shoes*	práctico	*practical*
unos vaqueros	*jeans*	El uniforme…	*Uniform…*
unas medias	*tights*	mejora la disciplina	*improves discipline*
amarillo	*yellow*	limita la individualidad	*limits individuality*
blanco	*white*	Las diferencias económicas	*The economic differences*
negro	*black*	no son tan obvias.	*are not as obvious*

Year 9 – Key Vocab – Term 3

AQA GCSE Theme 3

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Year 9 – Key Vocab – Term 4

AQA GCSE Theme 3

You can access the full vocab lists for HIGHER and FOUNDATION on the exam board website…

You can practise GCSE topics on www.spanishrevision.co.uk

¿Cómo vas al insti?	How do you get to school?		
Voy al insti…	I go to school…	Las clases empiezan a las…	Lessons start at…
a pie / andando	on foot / walking	y terminan a las…	and finish at…
en bici	by bike	Tenemos… clases	We have… lessons
en autobús	by bus	al día	per day
en coche	by car	por la mañana	in the morning
en metro	by underground	por la tarde	in the afternoon
en taxi	by taxi	Cada clase dura…	Each lesson lasts…
en tren	by train	el recreo	break
Salgo de casa a las…	I leave home at…	la hora de comer	lunch

¿Cuáles son las normas de tu insti?	What are the rules in your school?		
Está prohibido…	It is forbidden…	estoy de acuerdo	I agree
No se permite…	You are not allowed…	no estoy de acuerdo	I disagree
No se debe…	You / One must not…	En mi opinión, …	In my opinión, …
comer chicle	to chew chewing gum	Pienso que / Creo que…	I think that…
usar el móvil en clase	to use your phone in lessons	es justo	it's fair
llevar uniforme	to wear a uniform	es injusto	it's unfair
ser agresivo o grosero	to be aggressive or rude	no es justo	it's not fair
correr en los pasillos	to run in the corridors	¡Qué va!	No way!
llevar piercings	to have visible piercings	Las normas son…	The rules are…
ser puntual	to be on time	buenas / malas	good / bad
salir del insituto durante el día escolar	to leave the school during the school day	necesarias	necesary
		demasiado severas	too strict

Éxitos	Successes / Achievements	hice / hicimos…	I did / we did…
practico el judo	I do / have been doing judo	una prueba	a test / exam
toco la trompeta	I play / have been playing the trumpet	una película	a film
canto en el coro	I sing / have been singing in the choir	gané / ganamos…	I won / we won…
voy al club de (ajedrez)	I go / have been going to (chess) club	un trofeo	a trophy
soy miembro del…	I am / have been a member of the…	un premio	a prize
club de teatro	drama club	toqué un solo	I played a solo
club de periodismo	reporters club	¡Fue un éxito!	It was a success!
club de lectores	reading club	este trimestre	this term
club de fotografía	photography club	el próximo trimestre	next term
desde hace…años	for… years	voy a continuar con…	I'm going to continue with…
el trimestre pasado…	last term…	voy a ir al club de…	I'm going to go to… club
participé en…	I took part in…	Los clubs extraescolares…	Extra-curricular clubs…
un maratón	a marathon	son divertidos / geniales / interesantes	are fun / great / interesting
un torneo	a tournament	Te ayudan a…	They help you to…
un concierto	a concert	aprender cosas interesantes	learn interesting things
un campeonato	a championship	hacer nuevos amigos	make new friends
un concurso	a competition		

¿Hay problemas en tu insti?	*Are there problems in your school?*		*There are (some) pupils who…*
Un problema es…	*One problem in my school is…*	Hay (algunos) alumnos que…	
el estrés de los exámenes	*exam stress*	intimidan	*intimidate*
el acoso escolar	*bullying*	abusan	*abuse*
la presión del grupo	*peer pressure*	sienten pánico	*feel panic*
Estoy estresado/a.	*I am stressed out.*	hacen novillos	*skip lessons*
Tengo miedo de…	*I am scared of…*	quieren ser parte de la pandilla	*want to be part of the gang*
suspender mis pruebas.	*fail(ing) my assessments.*	son una mala influencia	*are a bad influence*
aprobar mis exámenes	*pass my exams*		

¿Qué vas a hacer?	*What are you going to do?*		*walk*
Voy a…	*I'm going to…*	ir a pie	
Vamos a…	*We're going to…*	llevar ropa de calle	*wear (my/your/our) own clothes*
participar en un intercambio	*take part in an exchange*	ir / comer juntos	*go / eat together*
viajar con mi clase	*travel with my class*	ir de excursión	*go on a trip*
conocer	*meet / get to know*	hacer turismo	*see the sights*
visitar	*visit*	hacer una visita guiada	*do a guided tour*
llegar	*arrive*	ver los edificios	*see the buildings*
estar	*be*	Va a ser…	*It's going to be…*
asistir a clases	*attend lessons*	fácil / guay	*easy / cool*

Year 9 – Key Vocab – Term 4

AQA GCSE Theme 3

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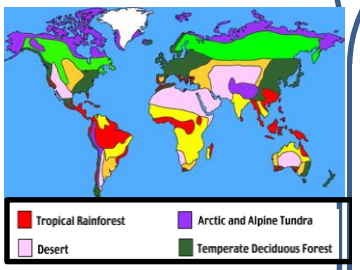
Subject: Geography Year 9 (GCSE AQA A)	Term: 3 and 4	Topic: The Living World – Ecosystems

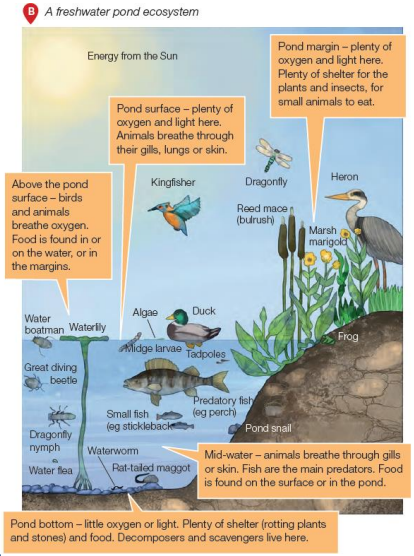
WOOTTON PARK
'Ipsum quod faciendum est diutius durant'

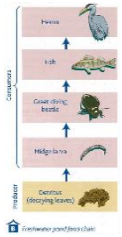
Key concept: What is an ecosystem?

An ecosystem is the living and non-living components(parts) of an environment and the interactions (links) that exist between them.
The balance between ecosystems is hard to achieve. Human interactions (uses) are having a significant impact of animals and their ecosystems. For this unit you need to know an example of a small UK Ecosystem, a Tropical Rainforest ecosystem and a hot or cold climate.



Key concept: Small UK Ecosystem – a pond



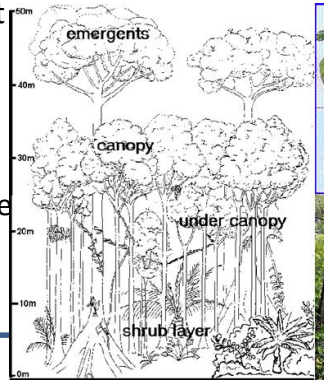


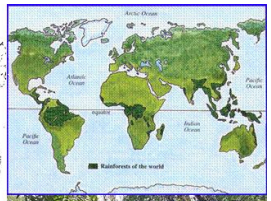
Ecosystems come in indefinite (unlimited) sizes. It can exist in a small area such as underneath a rock, a rotting tree-trunk, or a pond or village, or it can exist in large forms such as an entire (whole) rainforest. You need to know a case study of the rainforest and a local small ecosystem such as a pond. Make sure you know a food chain and a food web for the pond ecosystem.

Key concept: The Tropical Rainforest

Rainforests are located in areas which are warm and wet. They are often found along the equator. There is precipitation (rain) in the rainforest every day.
This helps make the rainforest area extremely fertile and able to support a wide range of plant and animal life.

Rainforest Deforestation:
The rainforests are being destroyed for cattle ranching, resources, palm oil and human settlement growth. Management is key for the future protection of rainforests.





Websites and further reading:
Kerboodle – Living World
https://www.youtube.com/watch?v=eGG7hyx_HlA
https://www.bbc.com/bitesize/guides/zx8n39q/revision/1
https://www.youtube.com/watch?v=WdcAQ6SJtb0
https://www.youtube.com/watch?v=UIbplCn8-zs
https://www.youtube.com/watch?v=2QdlF6Ld1oc
https://www.youtube.com/watch?v=SxwKa5cR3w4

Key terms:

Abiotic **biotic** **Consumer** **Decomposer** **Ecosystem** **Food chain** **Food Web** **Producer** **Biodiversity**
Deforestation **Emergent** **Canopy** **ecotourism** **Farming** **Debt reduction** **sustainability**

Subject: History Year 9 (GCSE AQA)	Term: 3 and 4	Topic: America Opportunity and Inequality 1920-1973

WOOTTON PARK

Key concept 1: American people and the Boom

1. **The Boom**
   - Mass production – Ford
   - Benefits of the Boom
   - Inequalities in Wealth
2. **Social and Cultural Developments**
   - Entertainment
   - Women and flapper culture
3. **Divided Society**
   - Organised Crime and Prohibition
   - Causes of racial tension
   - Immigration
   - KKK
   - Red Scare

Key concept 2: Bust – Americans' experience of the Depression and New Deal

1. **American society during the Depression**
   - Unemployment for farmers and businessmen
   - Hoover's responses and unpopularity
   - Roosevelt's election
2. **The effectiveness of the New Deal on different groups in society**
   - Successes/Limitations of the New Deal
   - Opposition from supreme court
   - Republicans and Radicals
   - Roosevelt's contribution as president
   - Popular culture
3. **Impact of the Second World War**
   - Economic recovery
   - Social Development (African Americans and Women)

Key concept 3: Post-War America

1. **Post-War American society and economy**
   - Consumerism and causes of prosperity
   - The American Dream
   - McCarthyism
   - Rock and Roll and Television
2. **Racial Tension and developments in the Civil Rights campaigns in 1950s and 60s**
   - Segregation laws
   - Martin Luther King Jr (Peaceful Protest)
   - Malcom X (Black Power Movement)
   - Civil Rights Acts 1964/68
3. **America and the 'Great Society'**
   - Social policy (Kennedy and Johnson)
   - Women's Movement (fight for equality)

Websites and further reading:

http://www.bbc.co.uk/schools/gcsebitesize/history/tch_wjec/usa19101929/2riseandfall1.shtml
https://www.bbc.com/bitesize/topics/zq2mn39/resources/1
AQA (1-9) Revision Guide America Opportunity and Inequality
AQA (1-9) Student book America Opportunity and Inequality
https://www.history.com/topics/great-depression/new-deal

Key vocabulary to define and learn:

Boom Bust Mass Production Social Development Flapper Organised Crime Prohibition Immigration Red Scare Ku Klux Klan
Communism Prosperity McCarthyism Segregation American Dream Civil Rights Depression Republican Democrat Economy

Subject: Computer Science	Term: 3	Topic: Computer Networks

WOOTTON PARK
'Ipsum quod faciendum est diutius durant'

Key topic 4.1: Computer Networks & the internet

3.1 Network hardware

- 3.1.1 Introducing networks; data packets and the advantages and disadvantages of using networks. 3.1.2 LAN's, WAN's and other networks (VPN, WPAN)
- 3.1.3 Network topologies and their advantages / disadvantages; bus network, ring network, star network. 3.1.4 Wired and wireless connections +/-.
- 3.1.5 Network hardware; routers, modems, hubs bridges and switches and wireless access points (WAP's)
- 3.1.6 Device addresses; MAC address, Network interface card (NIC)
- 3.1.7 Explaining the differences between networks; Client server / Peer to peer (P2P)
- 3.1.8 Different types of servers; Web servers, applications servers, Network attached storage (NAS), Print servers, Mail servers,

3.2 The internet

- 3.2.1 Being able to explain what is the internet, www, the services available and defining the purpose of a web browser. 3.2.2 The internet of things (IoT)
- 3.2.3 Connecting to the internet; ISP, modem / router (wired or wireless), web browser or app, a connection to the network through a copper wire or a fibre optic cable 3.2.4 Broadband; ADSL, cable, 3G and 4G (and 5G) technology – +/-
- 3.2.5 Internet protocols; TCP/IP (Transmission protocol/internet protocol)
- IP addresses, File transfer protocol (FTP), Hyper text transfer protocol (HTTP), Simple mail transfer protocol (SMTP), Voice over internet protocol (VoIP)
- 3.2.6 Web addresses 3.2.7 Streaming; music and video, buffering

3.3 Webpages and web apps

- 3.3.1 Understanding the difference between static and dynamic websites
- 3.3.2 Providing examples of how application programming interface (API's) are used
- 3.3.3 An introduction to client side and server side scripts
- Client side: Validations rules, flash games, cookies, advertising, responsive design
- Server side: Accessing a database, Information updates, Search engines,
- 3.3.4 Explaining the advantages and disadvantages of cloud computing. Cloud computing ownership.
- 3.3.5 Web development languages and tools:
- CSS, PHP, Javascript, SQL, HTML, HTML5
- 3.3.6 HTML;
- Tags, viewing HTML code, Creating HTML pages

3.4 Security

- 3.4.1 Antivirus software , firewalls, secure passwords, access levels, encryption
- 3.4.2 Network policies; acceptable use policy (AUP), archiving.
- 3.4.3 Network security failures; cyber attacks, hacking.

Key vocabulary to define and learn:

Bridge, data packet, encrypt, Ethernet, hacking, LAN, WAN, MAC address, network card, switch,

Websites and further reading:

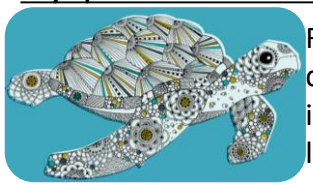
BBC bitesize: https://www.bbc.com/bitesize/guides/zh4whyc/revision/1
Teach ICT: http://www.teach-ict.com

Subject: Textiles	Term: 3	Topic: Landscape

WOOTTON PARK

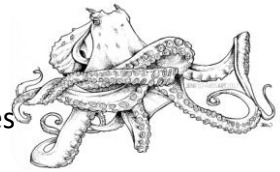
'Ipsum quod faciendum est diutius durant'

Key question 1 : Who are Rachel Russell and Jen Richards?



Rachel Russel is a British graphic designer and illustrator who creates images of sea creatures using intricate lines and bold colour to create graphic patterns. She uses a mixture of tradition techniques and computer technology.

Jen Richards is a British fine artist whose subject matter is also sea creatures. She works with illustrative drawing photo realistic painting. Her subject matter represents her background and promotes knowledge and understanding of the environment.



Key question 2 : How to paint using Acrylics?

Acrylic Painting is an important skill in Fine Art. This medium has become a popular choice because of its properties and versatility.
Acrylic paint and be watered down to create the effect of water colour. It can also be built up in thick layers as with oil paint. It dry's quickly and mixes well.
You will learn techniques for mixing, layering and blending acrylic paint to form interesting textures and patterns.

Key vocabulary to define and learn

Acrylics
Loom
Fabric Manipulation
Composition
Yarn/Thread
Embroidery
Weaving

Key question 3: What is Weaving?

Weaving is the interlacing (crossing) of two or more yarns/ threads to create a fabric. In your lessons this term you will be learning about the textiles industry in Britain. You will create your own loom and learn a variety of weaving techniques to create your own fabric.

Websites and further reading:

BBC Bitesize:
https://www.bbc.com/bitesize/guides/z3dthv4/revision/1
Pinterest:
Search "under the sea textiles" and "textured acrylic painting"
Youtube:
Weaving Techniques
https://www.youtube.com/watch?v=5uI2PjhNdnQ
Artist Research: Jen Richards
https://www.jenrichardsart.com/
Rachel Russell
http://frankly.folksy.com/2013/01/14/meet-the-maker-helen-wilson

Design Challenge:

Can you design your own weaving pattern using your mathematical skills to create a simple image? Templates will be available. Winning design will be displayed in the art class room. All entries due in the last week of term.