

Key Stage 4

Information Evening



Rednock School
Quality, Partnership, Success

Dr Cunningham

Deputy Headteacher & Key Stage 4 Lead

Miss Duncan

Head of English & Literacy Lead

Mr Pugh

Head of Mathematics

Dr Craig

Head of Science



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What are the components of KS4 success?

- Strong partnership between home and school
- Organisation and routines
- Excellent attendance
- Positive mindset
- Physical and mental wellbeing



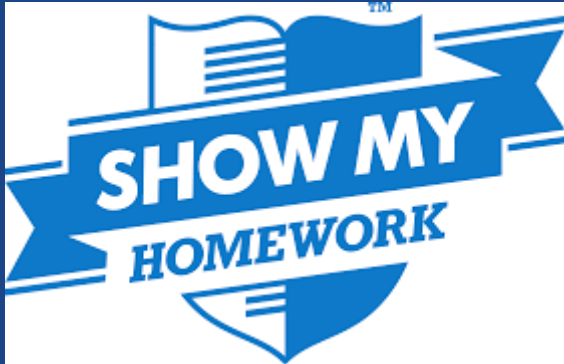
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Students:

Get organised in terms of stationery, notes, access to resources and prioritisation

Set up strong study habits (and stick to them!)

Maintain excellent attendance



Parents/ Carers:

Assist with organisation in terms of stationery, notes and prioritisation

Help to find study space free from distractions

Encourage excellent attendance



Students:

Retain a 'can do' positive mindset and understand the importance of 'not yet'

I can't do
it...yet!

Parents/ Carers:

Offer praise and encouragement to reinforce a 'can do' positive mindset .



Students:

Look after yourself physically, mentally and emotionally

Speak to your parents, tutor and teachers if you need help with your studies or with managing your mood

Keep your end goals in mind



Parents/ Carers:

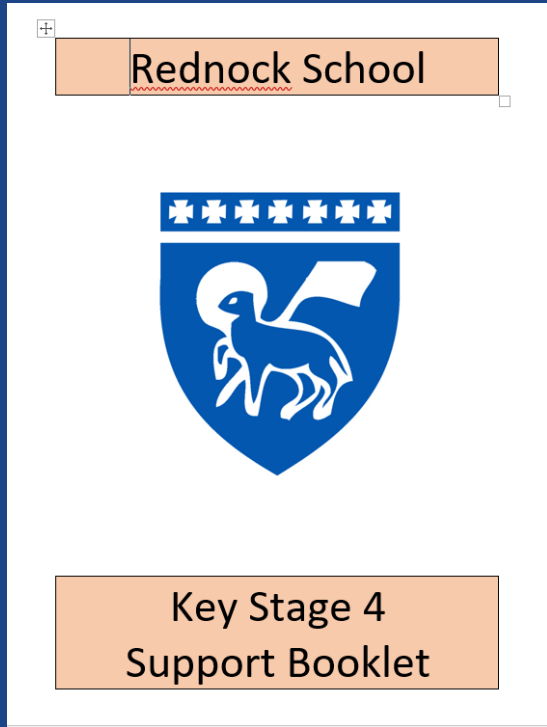
Maintain ongoing dialogue around physical, mental and emotional wellbeing

See N.H.S. advice on managing exam related stress. Speak to us, if you have concerns.

Encourage to focus on end goals and retain a sense of perspective.



Key Stage 4 Support Booklet



- Key components for Key Stage 4 Success
- Information on Homework and Revision
 - 60 mins per subject per week
 - Getting organised using SMHW
 - Revision techniques
- Signposting careers advice and guidance
- Subject specific details linked to revision tips, revision materials and useful websites

English



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Wider Reading

Students will need to be confident readers of a range of high quality, challenging fiction, non fiction and literary non fiction, written during the 19th, 20th and 21st century. The more exposure they have to a wide range of challenging reading material, the better they will do.

Their wider reading could include;

High quality journalism

News websites (BBC, The Guardian, The Telegraph, The Times)

Blogs

Travel Writing

Diaries

Letters

Autobiographical writing

Biographical writing

NEWS



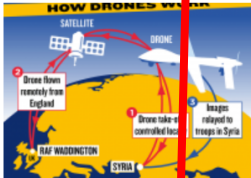
Corbyn's power play: the five big ideas

Wednesday, 26 September 2018

Is he prime minister material? Today, Jeremy Corbyn will address the Labour Party conference in a pitch to be Britain's next leader. Here are five trump cards which could win over voters.

ECONOMICS POLITICS

PDF



Armchair assassins enter ethical minefield

Wednesday, 26 September 2018

Are drone pilots morally indefensible? With a click of a button, they can kill dozens. Now, the British Army is training ethicists to teach them about the morality of remote-control killing.

TECHNOLOGY INTERNATIONAL

PDF

FIGHTING FAKE NEWS

BOOK FREE ONLINE TRAINING

sign up

TO OUR BLOG

Can search for topics of interest using the subjects tabs, or the search tool

Log in details available in the handout

Welcome

Account ID: C39672

Top articles for September



Articles are topical, and most are written to present a viewpoint. Students must develop their own views and opinions in order to write well in Section B.

Log in details available in the handout

Carl Froch: Why I love boxing

Carl Froch dismisses the challenger for his WBA and IBF super-middleweight titles as a 'kid who claims he's invincible' as he discusses pain, fatherhood and his plans for the future

Donald McRae



"I feel pain quite a lot," Carl Froch says as he tries to explain the essential difference between himself as a fighter and as an ordinary man outside the ring. He gazes across a small table as if deciding whether or not he should issue an invitation. "You know what? If you were to punch me hard in the nose right now it would f***** sting. But when I get punched much harder in the nose during a fight I don't feel it because I'm full of adrenaline. I'm full of the heat of battle. Your body releases a natural endorphin when you're fighting. You don't feel pain. Now, it's different. Poke me in the ribs? Pinch me? It would hurt. But punch me in the face on fight night and I don't feel it."

More from Complete Issues...



Why I love swimming
"When I'm in the water I'm elementally myself, floating free of any worries." How swimming makes this writer feel alive ☐



Freddie Flintoff: the hidden pain of sporting stars
The pressure sports stars are under can contribute to depression - yet they need to hide their self-doubt if they are to succeed



A desire, a dream, a vision - the making of a champion
The unique talent, personality and worldwide status of Muhammad Ali.

If your child is a reluctant reader, try to match their reading to their interests. 'Complete Issues' offer other texts linked to the one they are reading.

- Macbeth questions the assassination
- Thinks Duncan is a good King.
- M tells Lady M he doesn't want to kill Duncan
- She tells him the plan
- Macbeth then agrees to murder.

"Fair is foul, and foul is fair"

"When shall we three meet again in thunder, lightning, or in rain?"

our gins,
see my
ep desires"
ue than
ll can pay"
gind the
tron in the
an ken

"So foul and fair a day I have not seen"

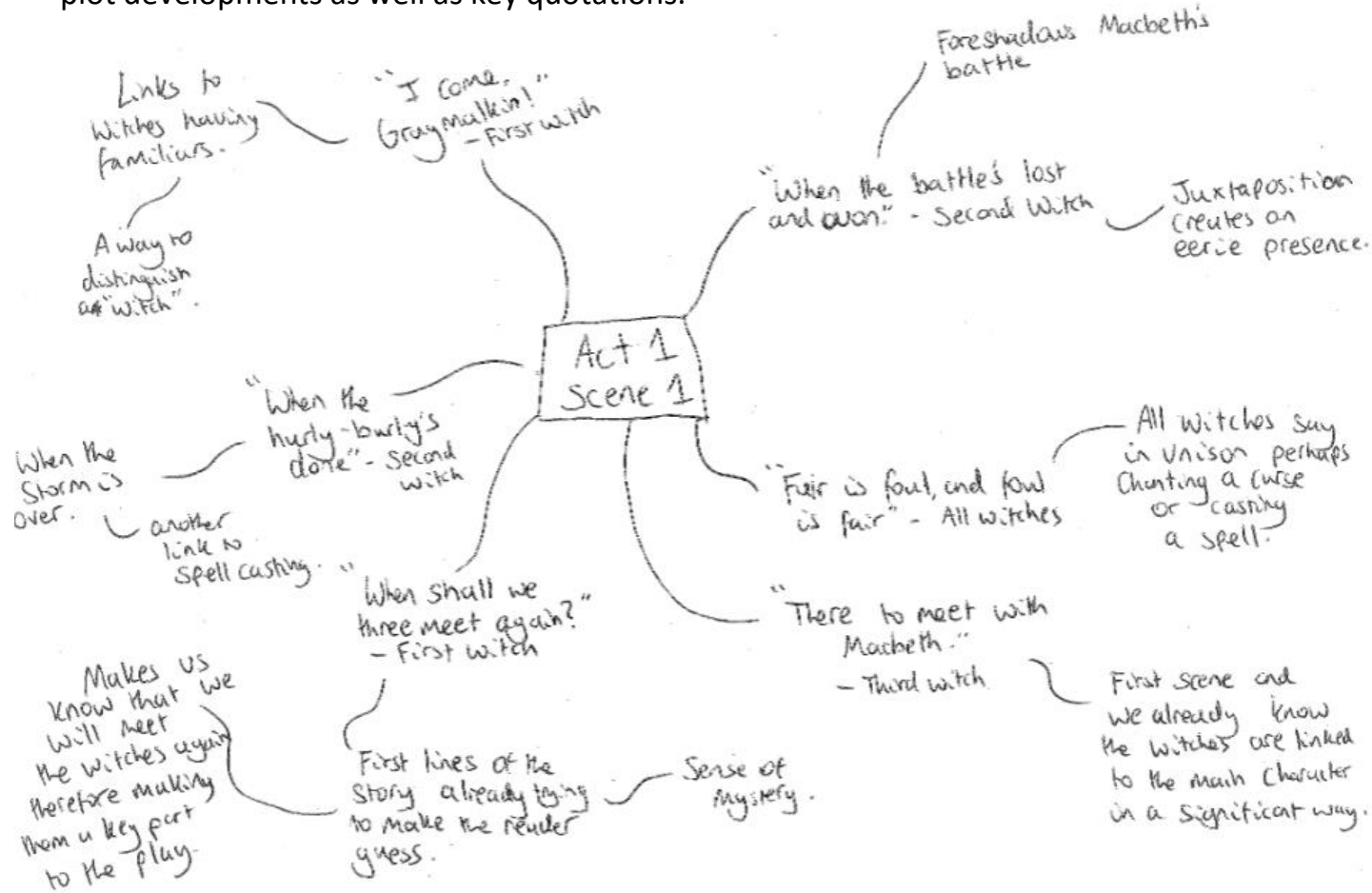
"What, can the devil speak true?"

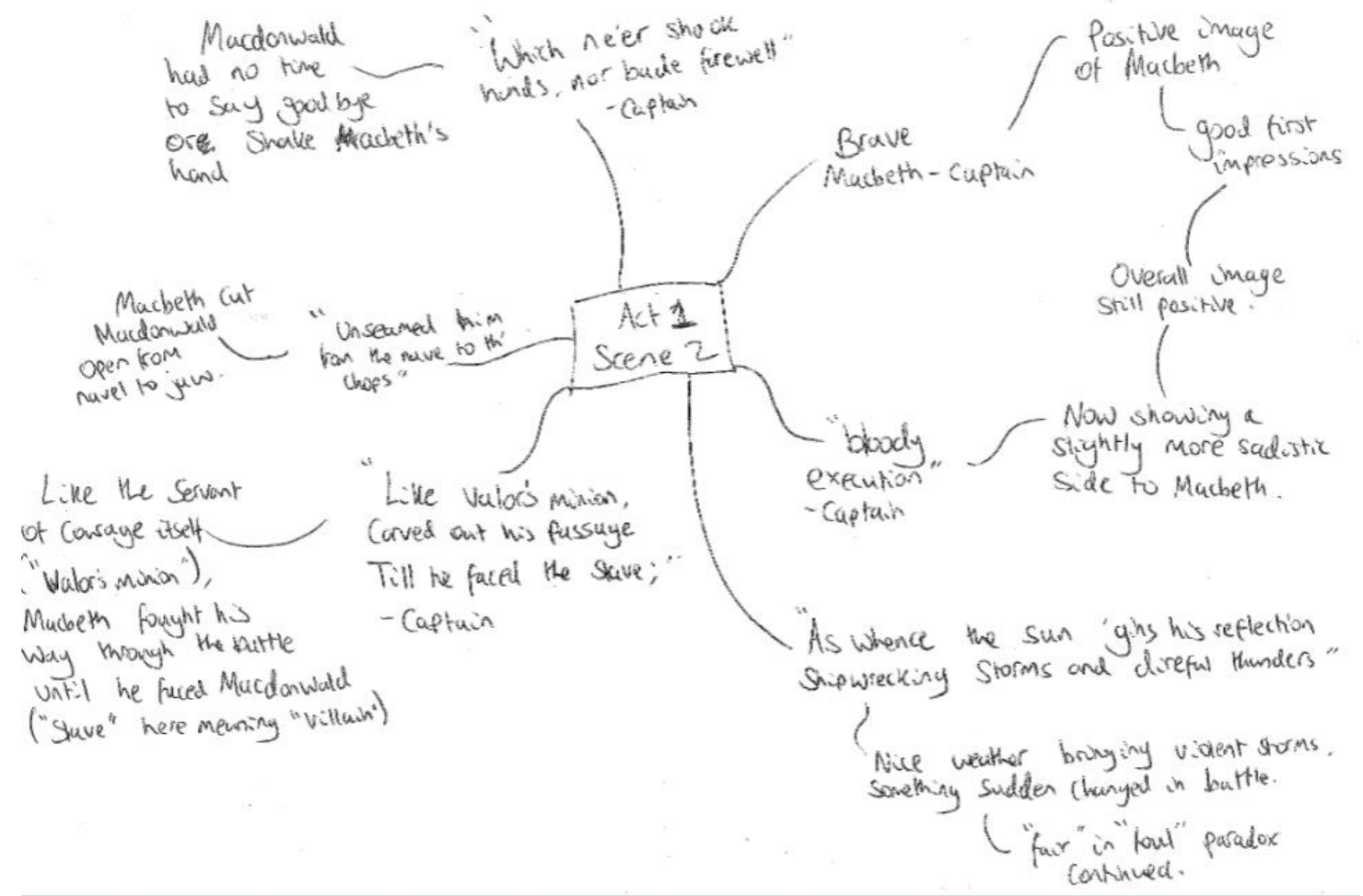
"All hail Macbeth! Hail to the

Creating revision flashcards is a good way to revise. This student has noted the Act and Scene from Macbeth on one side, and then summarised what happens on the other. They have included key quotations.

The notes don't have to be pretty (don't waste time) but need to be useful to the student.

112 This student has created a mind map of each scene from Macbeth. They've included the key plot developments as well as key quotations.





Students complete 'classroom mocks' every term. The feedback they receive will highlight to them where they have met the skills on the mark scheme (in green) and what they need to do to improve (pink).

Also note, there is space for a parent/carer comment. This helps to bridge the gap between school and home, so please do ask your child to show you their work.

		Student name: <i>Oliver Vignarajah</i>
		Teacher: <i>Ms Yeates</i>
Level 6 Cohesive, critical analysis and exploration 20-30 marks	A01	<ul style="list-style-type: none"> Critical, exploratory, conceptualised response to task and whole text Justified use of precise references to support interpretations
	A02	<ul style="list-style-type: none"> Analysis of writer's methods with subject terminology used judiciously Explanation of effects of writer's methods on reader
	A03	<ul style="list-style-type: none"> Explanation of how opposing/view contextual factors shown by specific, detailed links between context/task
Level 5 Thoughtful, developed consideration 21-25 marks	A01	<ul style="list-style-type: none"> Thoughtful, developed response to task and whole text All references integrated into interpretation(s)
	A02	<ul style="list-style-type: none"> Explanation of writer's methods with subject terminology used effectively to support consideration of methods Consideration of effects of writer's methods on reader
	A03	<ul style="list-style-type: none"> Thoughtful comparison of opposing/view contextual factors shown by explanation of detailed links between context/task
Level 4 Clear understanding 16-20 marks	A01	<ul style="list-style-type: none"> Clear, explained response to task and whole text Effective use of references to support explanation
	A02	<ul style="list-style-type: none"> Clear explanation of writer's methods with appropriate use of relevant subject terminology Understanding of effects of writer's methods on reader
	A03	<ul style="list-style-type: none"> Clear understanding of opposing/view contextual factors shown by specific links between context/task
Level 3 Explained, structured comments 11-15 marks	A01	<ul style="list-style-type: none"> Some explained response to task and whole text References used to support a range of relevant comments
	A02	<ul style="list-style-type: none"> Explains/relevant comments on writer's methods with some relevant use of subject terminology Identification of effects of writer's methods on reader
	A03	<ul style="list-style-type: none"> Some understanding of implicit/relevant contextual factors shown by links between context/task
Level 2 Supported, relevant comments 6-10 marks	A01	<ul style="list-style-type: none"> Supported response to task and text Comments on relevance
	A02	<ul style="list-style-type: none"> Identification of writer's methods Some reference to subject terminology
	A03	<ul style="list-style-type: none"> Some awareness of implicit/relevant contextual factors
Level 1 Simple, equal comments 1-5 marks	A01	<ul style="list-style-type: none"> Simple comments relevant to task and text Reference to relevant details
	A02	<ul style="list-style-type: none"> Awareness of writer making deliberate choices Possible reference to subject terminology
	A03	<ul style="list-style-type: none"> Simple comment on implicit/relevant contextual factors
0 marks	Nothing worthy of commenting upon.	

W.W.W. are shown by the highlighting on the mark scheme.
E.B.I. are shown by the highlighting below:

- Don't retell the play or write as if the characters are real. Instead, refer to the playwright throughout. E.g. The playwright uses ... to show ...
- Use the key word(s) from the task regularly in the answer- this will help to keep your answer relevant and focused.
- Plan your answer first to ensure that you cover a range of points.
- Don't just rewrite the quote. Select a specific word from the quote and explain what that word suggests and the effect it has on the audience.
- Make links to relevant context, exploring how the play was influenced by certain events in the time period. Explore how the play influenced past audiences and the effect it has on current audiences.
- Embed short quotations within sentences to act as evidence for your points.
- Write about the 'how'. In other words, explain how language and other literary devices are used by the playwright to make the audience think/feel/imagine something specific.
- Learn key quotations off by heart.
- Use accurate subject terminology.
- Proof read (read back through and check) to ensure that your written expression is accurate.
- Try to develop a more perceptive approach to the characters and/or themes.
- Other:

Overall mark: *31 + 3 (AO4)*

Student's reflection:
I am happy with how I did and I think I can definitely push for a Level 6.

Parent/carer comment: *Allie made some good comparisons to how different classes are treated. I liked his references to the police officer and his view of the Joe classes.*

Mark	AO	Typical features of response
Level 6 Convincing, critical analysis and exploration 26-30 marks	AO1	<ul style="list-style-type: none"> Critical, exploratory comparison Judicious use of precise references to support interpretations(s)
	AO2	<ul style="list-style-type: none"> Analysis of writer's methods with subject terminology used judiciously Exploration of effects of writer's methods on reader
	AO3	<ul style="list-style-type: none"> Exploration of ideas/perspectives/contextual factors shown by specific, detailed links between context/text/task
Level 5 Thoughtful, developed consideration 21-25 marks	AO1	<ul style="list-style-type: none"> Thoughtful, developed comparison App references integrated into interpretations(s)
	AO2	<ul style="list-style-type: none"> Examination of writer's methods with subject terminology used effectively to support consideration of methods Examination of effects of writer's methods on reader
	AO3	<ul style="list-style-type: none"> Thoughtful consideration of ideas/perspectives/contextual factors shown by examination of detailed links between context/text/task
Level 4 Clear understanding 16-20 marks	AO1	<ul style="list-style-type: none"> Clear comparison Effective use of references to support explanation
	AO2	<ul style="list-style-type: none"> Clear explanation of writer's methods with appropriate use of relevant subject terminology Understanding of effects of writer's methods on reader
	AO3	<ul style="list-style-type: none"> Clear understanding of ideas/perspectives/contextual factors shown by specific links between context/text/task
Level 3 Explained, structured comments 11-15 marks	AO1	<ul style="list-style-type: none"> Some explained comparison References used to support a range of relevant comments
	AO2	<ul style="list-style-type: none"> Explained/relevant comments on writer's methods with some relevant use of subject terminology Identification of effects of writer's methods on reader
	AO3	<ul style="list-style-type: none"> Some understanding of implicit ideas/perspectives/contextual factors shown by links between context/text/task
Level 2 Supported, relevant comments 6-10 marks	AO1	<ul style="list-style-type: none"> Supported comparison Comments on references
	AO2	<ul style="list-style-type: none"> Identification of writer's methods Some reference to subject terminology
	AO3	<ul style="list-style-type: none"> Some awareness of implicit ideas/contextual factors
Level 1 Simple, explicit comments 1-5 marks	AO1	<ul style="list-style-type: none"> Simple comments relevant to comparison Reference to relevant detail(s)
	AO2	<ul style="list-style-type: none"> Awareness of writer making deliberate choices Possible reference to subject terminology
	AO3	<ul style="list-style-type: none"> Simple comment on explicit ideas/contextual factors

Student name: Florie Washburn

Overall mark: 22 /30

Estimated grade: 7

W.W.W. are shown by the highlighting on the mark scheme.

E.B.I. are shown by the highlighting below:

- Use the key word(s) from the question regularly in your answer to show a focused response.
- Use the language of possibility to explore different interpretations of language. Use modal verbs such as 'this could reveal...' or 'perhaps this shows...'
- Spend more time annotating the poem and producing a plan of similarities and differences to ensure you cover a range of ideas.
- Compare the two poems in every paragraph, by using the language of comparison e.g. 'however', 'similarly', 'also', 'on the other hand', 'in contrast'.
- Embed short quotations within sentences to act as evidence for your points.
- Don't just rewrite the quote. Select a specific word from the quote and explain what that word suggests and the effect it has on the reader.
- Make links to relevant context, exploring how the poetry was influenced by certain events, and how it influences current readers.
- Explain how the writer uses structure to create meaning (e.g. discussion of enjambment).
- Use subject terminology accurately.
- Proof read to check for literacy errors.

Other: Have another look at 'Storm on the Island' as he's not referencing soldiers.

Student's reflection: I am very pleased with my result but need to remember how to structure my answer so that context is weaved throughout.

Parent/carer comment:

An incisive dissection of two poems that shows a thoughtful and ranging analysis. Well done Florie!
P. H. & P. Dalton ✓

Throughout notes on the end!

Grade boundaries are only decided after students have sat their final exams. We can only use our professional judgement and previous experience to predict grades. What is more important is that students always know what they need to do to improve.

Please remind them of this and don't allow them to become too confident or too disheartened after each mock.

Please do not hesitate to contact me if there is anything I can do to support you and your child.

hannah.duncan@rednockschool.org.uk

Maths



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Hywel Pugh – Head of Maths

AQA GCSE Maths - Assessment

- 3 x 1hr 30 exams (1 of which is non-calculator)
- Two tiers – Foundation (Grades 1 to 5) and Higher (Grades 4 to 9)



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13 In a game the average score was 50

Tom's score was $\frac{5}{2}$ of the average.

Circle Tom's score.

[1 mark]

125

175

30

20

22 Three friends arrive at a party.

Their arrival increases the number of people at the party by 20%

In total, how many people are now at the party?

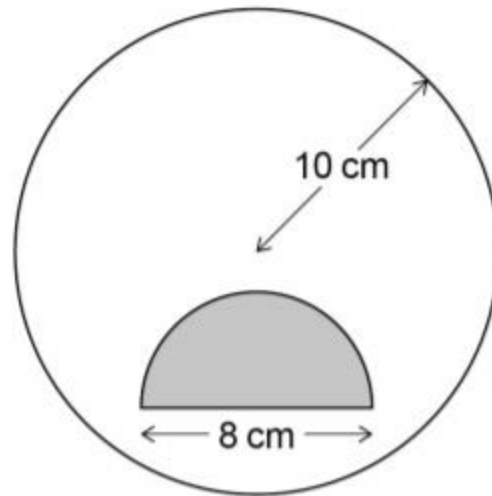
[2 marks]

GCSE Paper 1 questions

25

A shaded semicircle is inside a circle as shown.

Not drawn
accurately



The **radius** of the circle is 10 cm

The **diameter** of the semicircle is 8 cm

How many times bigger is the unshaded area than the shaded area?

[4 marks]

21 Solve the simultaneous equations

$$2x + 3y = 5p$$

$$y = 2x + p$$

where p is a constant.

Give your answers in terms of p in their simplest form.

[4 marks]

Subject area	Foundation Tier weighting	Higher Tier weighting
Number	25%	15%
Algebra	20%	30%
Ratio, proportion and rates of change	25%	20%
Geometry and measures	15%	20%
Probability and statistics	15%	15%

Course Content

Success in Maths

How can you help?

- The Maths has not changed but the methods may look different at times.
- Different methods does not mean you cannot help.
- Studies have shown that students and parents spending time studying together has a positive impact on outcomes.



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Success in Maths

- Spend time working together on problems.
- If the methods you use are different compare solutions, discuss which is more efficient, ask them to explain their methods to you.
- Encourage them to believe they **can** do maths and offer opportunities to access maths at home when possible. Be positive about Maths yourselves.
- Make sure they know the basics – times tables.



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Success in Maths

I'm stuck! What next?

- Look through their exercise book for an example and ask them to explain it to you.
- See if you can do the question together.
- If they are still struggling encourage them to watch a video on the topic on [hegartymaths.com](https://www.hegartymaths.com)
- Still no luck, then ask their Maths Teacher in the next lesson.



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Grades and opportunities

- ▶ Good grades in all subjects are essential but
 - Employers more and more want good grades in Maths and English
 - A minimum standard has been introduced for all students to achieve and they will have to keep studying until 18 to achieve it (Grade 4)
 - This is about more than factual knowledge and is about demonstrating communication skills, problem solving ability and initiative



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GCSE Science – what is involved?

Students sit two papers in Biology, two in Chemistry and two in Physics – triple Science papers are longer.

Triple Science get three grades – one in each Science

Combined Science get two grades – 44, 45, 55, etc.

Tiers of entry

Foundation tier – grades 1-5

Higher tier – grades 4-9 (below that is grade U)

Realistically, students need to be able to consistently achieve a high grade 5 in higher tier practise papers and be in reach of a grade 6 to succeed on the higher.

Final decision doesn't need to be made until spring of Y11.

What do you need to be able to do?

Lots of content to recall – need to learn little and often and keep returning to previous work.

Practical skills are now tested as part of the written papers – need to revise the ‘purple sheet’ required practicals in class.

Many of the questions require application of knowledge – need to practise doing questions and marking them.

Writing precisely and being numerate are very important to Science too!

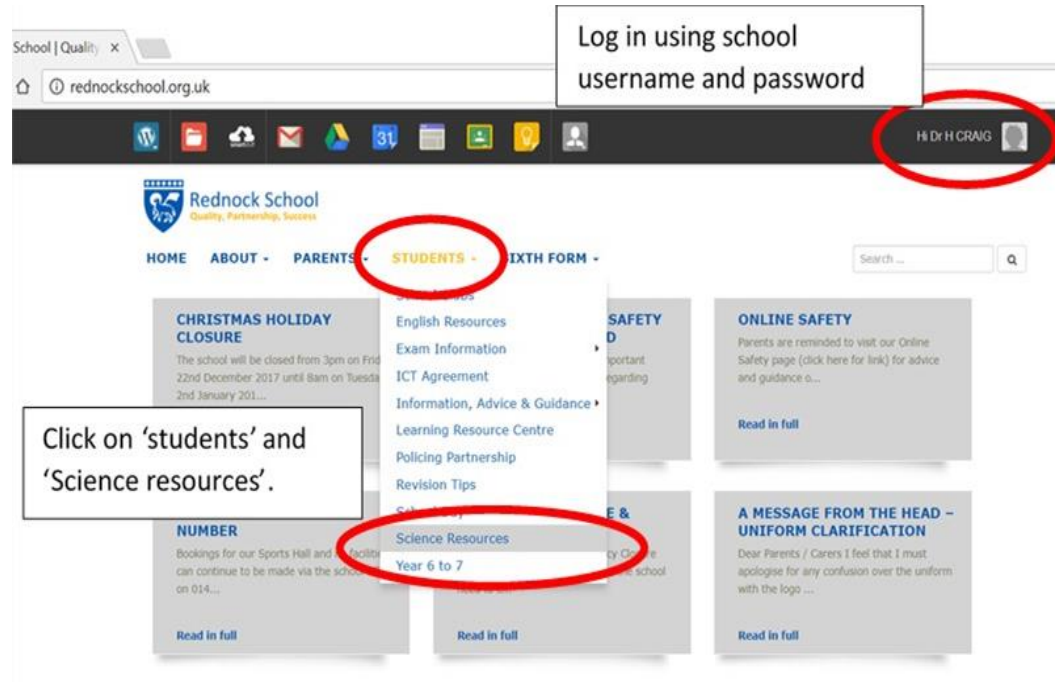
Assessment in Science

Tests every term – look out for the revision lists on show my homework!

Topic	What to revise	How to revise it
Bio	How to make a microscope slide, including the names of the equipment you would use.	Watch the required practical video and look at the practical sheet (both on the Rednock website). From memory try to write down a list of all of the equipment and all of the steps.
Bio	Parts of animals and plant cells – what they are, what they do and how a sperm cell is specialised to do its job. You also need to know what a stem cell is.	Do 'look, cover, write, check' to learn the structure of a plant cell and of an animal cell. Make flash cards for the different parts and what they do – get someone to test you on them.

'Recap' questions every lesson and 10 minutes of silent working to tackle exam questions and key skills.

Lots of resources are available online



School | Quality x
rednockschool.org.uk

Log in using school username and password

Hi Dr H CRAIG

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HOME ABOUT PARENTS **STUDENTS** SIXTH FORM

CHRISTMAS HOLIDAY CLOSURE
The school will be closed from 3pm on Friday 22nd December 2017 until 8am on Tuesday 2nd January 2018...









English Resources
Exam Information
ICT Agreement
Information, Advice & Guidance
Learning Resource Centre
Policing Partnership
Revision Tips
Science Resources
Year 6 to 7

ONLINE SAFETY
Parents are reminded to visit our Online Safety page (click here for link) for advice and guidance o...
Read in full

A MESSAGE FROM THE HEAD – UNIFORM CLARIFICATION
Dear Parents / Carers I feel that I must apologise for any confusion over the uniform with the logo ...
Read in full

Click on 'students' and 'Science resources'.

Required practical resources

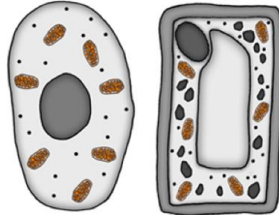
	!GCSE Practical Guide - Biology - Microsc... 	me	26 Sep 2018	me
	Copy of Links to online text book resourc... 	me	12 Mar 2017	me
	Copy of Microscopy.mp4 	me	12 Mar 2017	me
	Copy of Student sheet.docx 	me	12 Mar 2017	me

Cell structure part 1 - Eukaryotes and prokaryotes

All living things are **made** of **cells**, they are the **basic unit** of all **life**.

KnowIT

Eukaryotic cells



Have a cell membrane, cytoplasm and genetic material (DNA) enclosed in a nucleus.

Animal and plant cells are eukaryotic cells

Prefixes are used in science to make very small numbers more manageable. You need to learn the ones in the table and be able to convert to and from standard form.

Prokaryotic cells



These are **smaller** than eukaryotic cells. The genetic material is not enclosed in a nucleus. The DNA is a single loop and there may be one or more rings of DNA called plasmids.

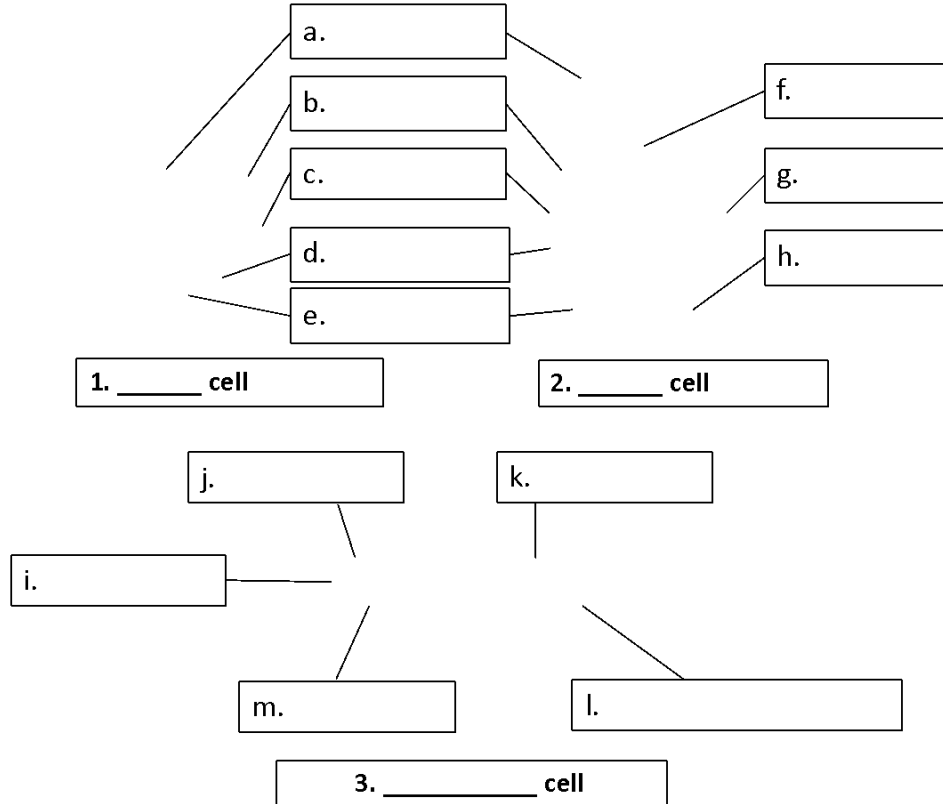
Bacterial cells are prokaryotic cells

Prefix	Multiple	Standard form
centi (cm)	1 cm = 0.01 m	$\times 10^{-2}$
milli (mm)	1 mm = 0.001 m	$\times 10^{-3}$
micro (μm)	1 μm = 0.000 001 m	$\times 10^{-6}$
nano (nm)	1 nm = 0.000 000 001 m	$\times 10^{-9}$

Cell structure part 1 – Question 1

5. Name the structures **A to L** on the diagrams below and label cells 1, 2 and 3.

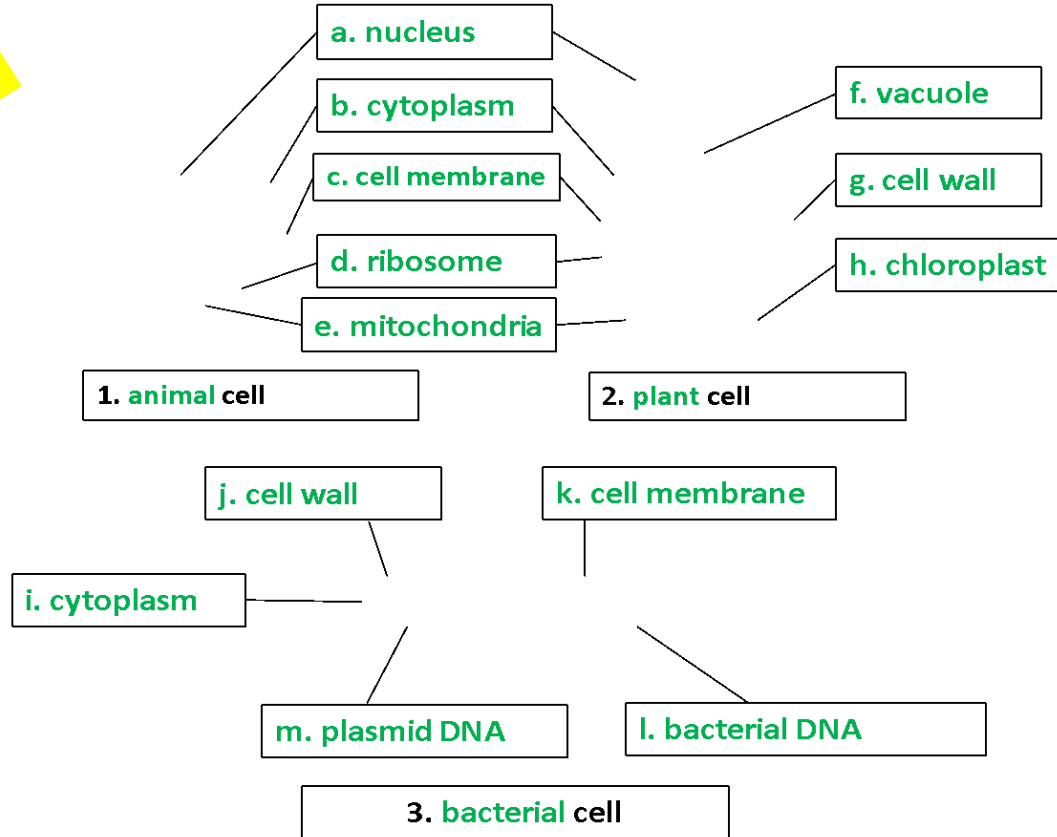
KnowIT



Cell structure – AnswerIT

5. Name the structures **A to L** on the diagrams below and label cells 1, 2 and 3.

KnowIT



A. Cell structure part 1 – Eukaryotes, prokaryotes and animal and plant cells

1. Describe the similarities and differences between a typical plant and a typical animal cell. (4)
2. Ribosomes synthesise proteins. Explain what this means. (2)
3. Explain why the mitochondria in cells are important. (3)

A. Cell structure part 1 – Eukaryotes, prokaryotes and animal and plant cells

1. Describe the similarities and differences between a typical plant and a typical animal cell. (4)
 - *Typical animal and plant cells contain the following structures: nucleus, cytoplasm, cell membrane, ribosomes, mitochondria (2)*
 - *Plant cells also contain a permanent vacuole, a cell wall and chloroplasts (2)*

Knowledge mat

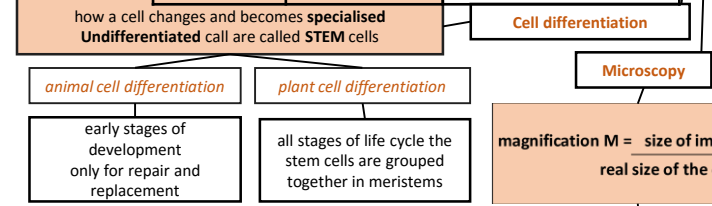
animal cell	site of chemical reactions in the cell	gel like substance containing enzymes to catalyse the reactions
plant cell	contains genetic material	controls the activities of the cell and codes for proteins
	cell membrane <i>semi permeable</i>	controls the movement of substances in and out of the cell
	ribosome <i>site of protein synthesis</i>	mRNA is translated to an amino acid chain
	mitochondrion <i>site of respiration</i>	where energy is released for the cell to function

	cell membrane	site of chemical reactions in the cell	gel like substance containing enzymes to catalyse the reactions
	bacterial DNA	<i>not in nucleus floats in the cytoplasm</i>	controls the function of the cell
	cell wall	NOT made of cellulose	supports and strengthens the cell
	plasmid	<i>small rings of DNA</i>	contain additional genes
	cytoplasm	all cells are much smaller than plants and animals	controls the movement of substances in and out of the cell

AQA Cell Structure

contains all the parts of animal cells plus extras

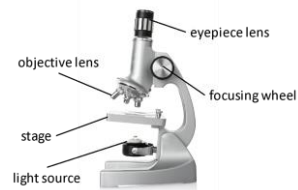
permanent vacuole	<i>contains cell sap</i>	keeps cell turgid, contains sugars and salts in solution
cell wall	<i>made of cellulose</i>	supports and strengthens the cell
chloroplast	<i>site of photosynthesis</i>	contains chlorophyll, absorbs light energy



Specialised cells	specialised animal cells	nerve		<i>carry electrical signals</i>	long branched connections and insulating sheath
		sperm		<i>fertilise an egg</i>	streamlined with a long tail acrossome containing enzymes large number of mitochondria
		muscle		<i>contract to allow movement</i>	contains a large number of mitochondria long
	specialised plant cells	root hair		<i>absorb water and minerals from soil</i>	hair like projections to increase the surface area
		xylem		<i>carry water and minerals</i>	TRANSPIRATION - dead cells cell walls toughened by lignin flows in one direction
		phloem		<i>carry glucose</i>	TRANSLOCATION - living cells cells have end plates with holes

Microscopy

$$\text{magnification } M = \frac{\text{size of image } I}{\text{real size of the object } A}$$



Feature	Light (optical) microscope	Electron microscope
Radiation used	Light rays	Electron beams
Max magnification	~ 1500 times	~ 2 000 000 times
Resolution	200nm	0.2nm
Size of microscope	Small and portable	Very large and not portable

PREFIXES

Prefix	Multiple	Standard form
centi (cm)	1 cm = 0.01 m	$\times 10^{-2}$
milli (mm)	1 mm = 0.001 m	$\times 10^{-3}$
micro (µm)	1 µm = 0.000 001 m	$\times 10^{-6}$
nano (nm)	1nm = 0.000 000 001 m	$\times 10^{-9}$

Other useful resources



Choose entry level subscription for free videos

The logo for 'Bitesize' is a solid purple rectangle with the word 'Bitesize' written in white, bold, sans-serif font.

Bitesize

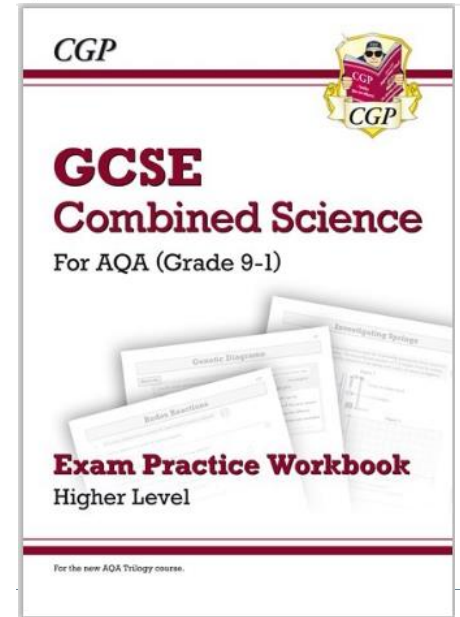
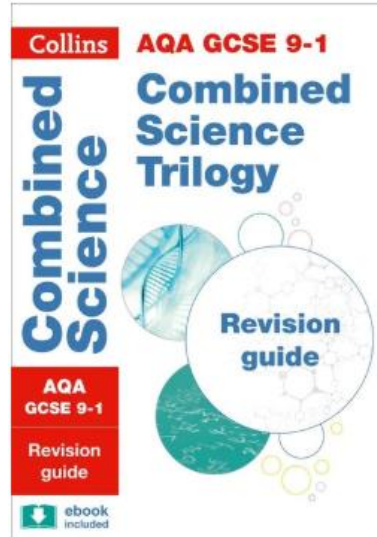
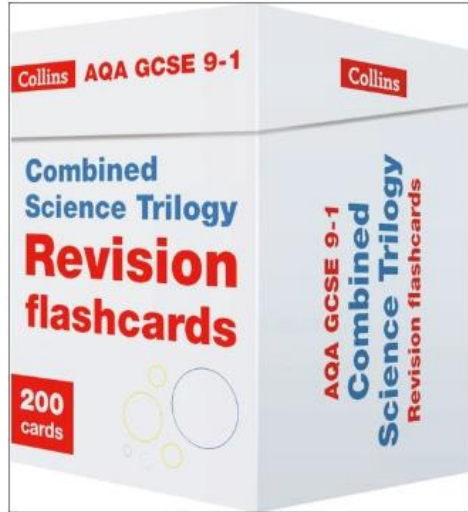
Both break the material down into chunks and provide questions BUT don't cover longer written answers.

Make sure you pick the right course!

The logo for 'Seneca' is a solid blue rectangle. It features a white starburst icon to the left of the word 'SENECA' written in white, bold, sans-serif capital letters.

 **SENECA**

Revision resources to purchase



Year 10

Information Evening



Rednock School
Quality, Partnership, Success