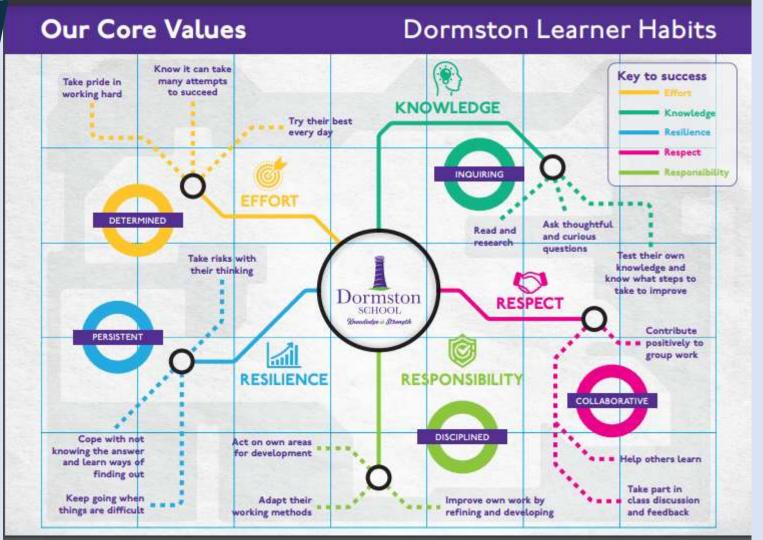


### Welcome

Year 9 Strategy Mrs N Garrett







### Aims of the evening:

- Explain the role of the Year Strategy Leader
- Provide an overview of the Year 9 Strategy Careers,
   PSHE and character education
- How to make use of Go4Schools
- New homework policy and parental tracking on Go4Schools
- Share key dates for 2022-23
- Overview of the English Curriculum
- Overview of the Maths Curriculum
- Overview of Science

Mrs N Garrett Year 9 Strategy Leader

Mrs L Barley Head of KS3 English

Mrs R Bal Head of KS3 Maths

Miss E Ward Head of Science

# Strategy leader role – how I can help

- Raise the profile of Year 9 progress, PSHE and character development.
- Motivate pupils through assemblies, careers advise, guest speakers in PSHE.
- Monitor progress and attainment grades and identify pupils that may need intervention.
- Support pupils when making their GCSE Option Choices
- Help to highlight key areas for concern for these pupils what is holding them back?
- Meet with these pupils and/or carers to discuss these issues.
- Make curriculum leaders, heads of house and form tutors aware of these pupils and discuss initiatives to help them get back on track.
- Praise and reward pupils who are making good progress in assemblies, through letters and phone calls home and certificates.

# The importance of year 9

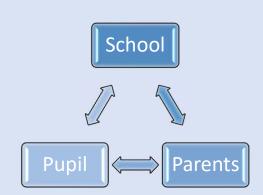
### The PSHE focus is on Options and Careers

• It is the expectation that by the end of the year, all students in year 9 will have developed the necessary skill to become strong, resilient and independent learners – ready for the challenges of the year/years ahead.

Making curriculum choices in Year 9 is a very important part of their time in school. It is an opportunity for
them to take control of their education and shape the way they want their future to be. The options they
choose for Years 10 and 11 will affect how they spend their time at school for the next two years. The choices
they make may also influence what course or job they decide to do after Year 11.

# Key things for success in Year 9

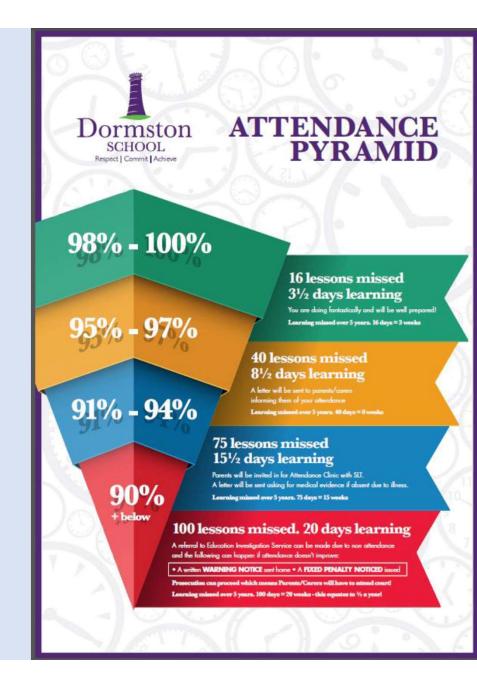
- Exemplary Attendance (98%+)
- Be punctual
- Be organised equipment
- Have access to Go4Schools and RM Unify
- Complete Homework
- Attend Extra-Curricular Clubs
- Go above and Beyond in all subjects (at <u>least</u> an average effort score of a 2)
- Respond effectively to feedback
- Be polite, kind and an approachable person



### Attendance

### Any absence could result in:

- Missing key information from subjects
- Missing important deadlines
- Missing friendships and extra curricular
- Missing PSHE and character development opportunities



### How attendance effects Grades

All pupils				
	Pupils	Average GCSE Grade	Average GCSE Value Added	
All Pupils	209	4.9	+0.1	
Attendance groups				
Above 95%	95	5.6	• +0.7	
90.1 - 95%	62	5.1	+0.1	
80.1 - 90%	29	3.9	-0.4	
50.1 - 80%	16	2.7	-1.1	
0 - 50%	6	1.5	-2.5	

# Flight Paths



End of Year Target: The targets have been generated by the school. They are based CAT's tests that they sat at the start of year 7. A student's target grade is a prediction that has been set to indicate where they should be each school year — the purpose of this is to help monitor if they are on track to meet their GCSE target grade by Year 11. With hard work, these grades are meant to be achievable.

Current grade: The grade the student is currently working at set by the subject teacher—this often has factored in multiple assessments and is based on all of their learning so far.

**Predicted Grade:** The grade the subject teacher thinks the student will actually get at the end of Year 9.

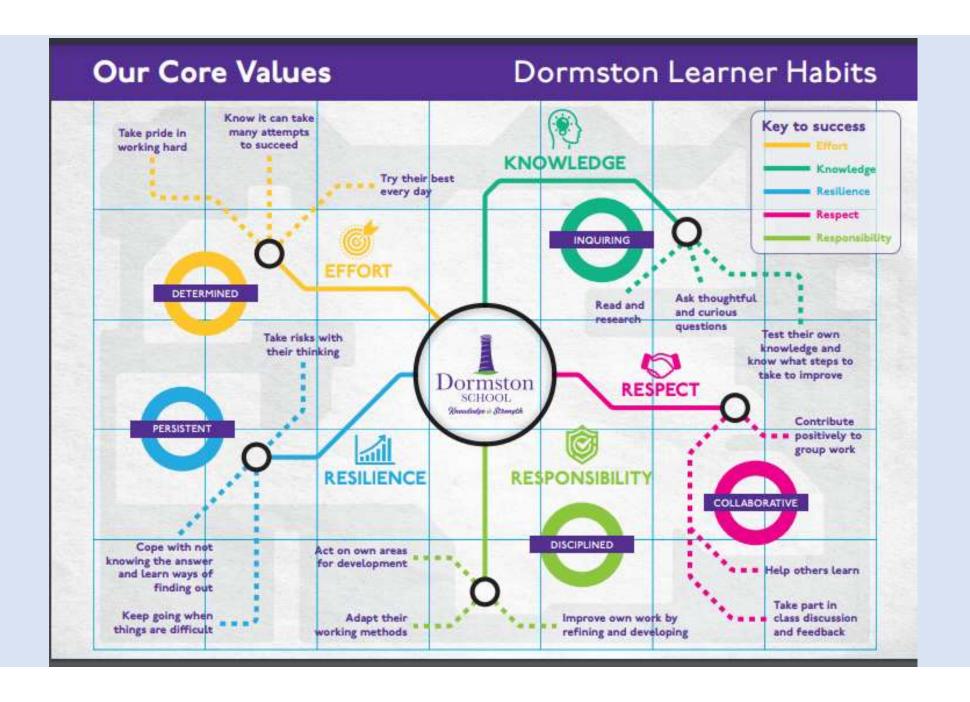
# The 5 year curriculum

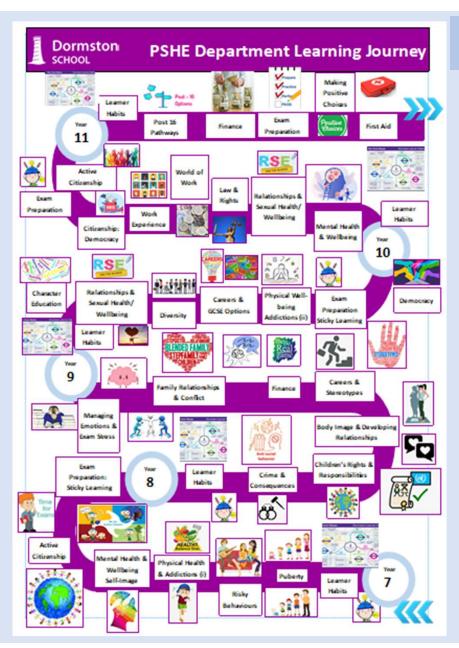
- Shift away from KS3 AND KS4 spiral curriculum or built upon skills and knowledge
- Core subjects particularly have a 5 year curriculum
- Topics studied in Year 9 could be just as important as year 11

# What Year 9 pupils should expect

- An increase in subject difficulty
- An increase in homework
- Development of critical thinking skills to solve unseen problems
- Recall of old information
- Mastery of new information
- Beginning to plan for their future
- Development of Employability skills (Eg time management)







### The Curriculum

Year 7

#### **Learner Habits**

Puberty
Risky Behaviours
Physical Health & Addictions
Mental Health & Well Being
Active Citizenship
Exam Preparation

Year 8

#### **Learner Habits**

Crime & Consequence
Children's Rights & Responsibilities
Body Image & Developing Relationships
Careers & Stereotypes
Finance
Family Relationships & Conflict
Managing Emotions & Exam Stress

Year 9

#### **Learner Habits**

Character Education

Relationships & sexual Health/Wellbeing

**Diversity** 

**Careers & GCSE Options** 

**Physical Wellbeing Addictions** 

**Exam Preparation** 

**Democracy** 

Year 10

#### **Learner Habits**

Mental Health and Wellbeing Relationships & sexual Health/Wellbeing Law & Rights World of Work Work Experience

Citizenship: Democracy Exam Preparation

**Active Citizenship** 

Year 11

#### **Learner Habits**

Post 16 Pathways
Finance
Exam Preparation
Making Positive Choices

First Aid

# Year 9 Strategy Focus

- Success in year 8 and moving forward & Character Education
- Relationships and Sexual Health: Healthy relationships, understanding, consent and the law, keeping safe and understanding risks.
- Diversity: British values and respecting diversity, discrimination and the media
- Careers & GCSE Options: employability skills, thinking ahead, Options and progress
- Physical Wellbeing & Addictions:- What are drugs, both legal and illegal and the law
- Exam Preparation: Identifying different revision strategies
- Democracy and Citizenship: Democracy, British Parliament and House of Commons
- Transition to GCSE & Success Celebration

### Year 9 careers activities

- PSHE Spring Term Careers & GCSE Options (Spring Term)
- GCSE Options Evening 2<sup>nd</sup> March 2023 Local FE/HE providers, employers, apprenticeship & general careers advice available
- National Careers Week 6<sup>th</sup> -10<sup>th</sup> March 2023 (classroom based activities, workshops, employer engagement)
- Work Experience Launch Evening 20th June 2023. To launch Work Experience programme for March 2024
- Halesowen College Taster Day 6th July 2023



### info@dormson.dudley.sch.uk

### **Key features and benefits:**

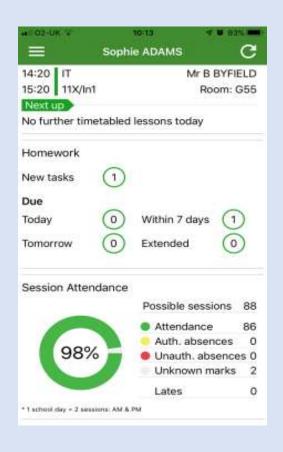
- Parents have 24/7 access to today's information about their children's education, including target grades and attendance statistics.
- GO 4 Schools Online Markbooks parents can see real-time, subject-specific assessment information with formative assessment and access course descriptions.
- GO 4 Schools Behaviour Tracking parents can see real-time behaviour information.
- GO 4 Schools Progress Reports module parents can access progress reports online, either as web pages or as great-looking PDFs that they can print at home,
- Parents can check their children's timetable online, which helps reduce the number of forgotten PE kits, etc.
- Parents can also use the GO 4 Schools Parental Engagement module to notify the school of changes to their contact details.
- GO 4 Schools Homework module parents can support their child's independent learning with a clear view of homework set, due dates and homework content.

# Go4Schools App

Online access for parents/guardians to information about their children's education

- Timetable
- Homework
- Behaviour records
- Attendance
- Target Grades
- 24/7 access to today's information





### Homework

### What homework will we set?

- Homework may practice or extend what has been learnt in lesson and strengthen knowledge and learning.
- Or prepare students for learning to come in future lessons.



- Teaches students to manage their time
- Builds independence
- Extends knowledge
- Builds subject confidence
- Allows the subject teacher to assess their learning/knowledge
- It is a life skill in future employment students may have to take work home and manage their own workload.



'Evidence-based research has shown that students who regularly complete homework tend to make greater academic progress than those who don't' – Education Endowment Foundation

### Homework Club



# Need help or a space to work?

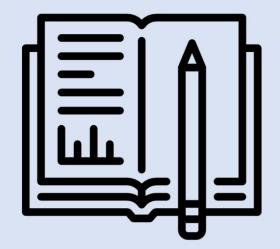


Monday-Friday: After school in the PLC

All students welcome

# Homework Policy

- Set according to homework timetable
- Will be a maximum of 50 minutes, but could be less
- Added to Go4Schools by subject teachers
- Teachers will track if it has been received on Go4Schools –
   this can be seen by parents/carers
- Teachers will use homework to further students' learning
   e.g. used as an activity in lesson or to inform future planning



### Non-Completion:

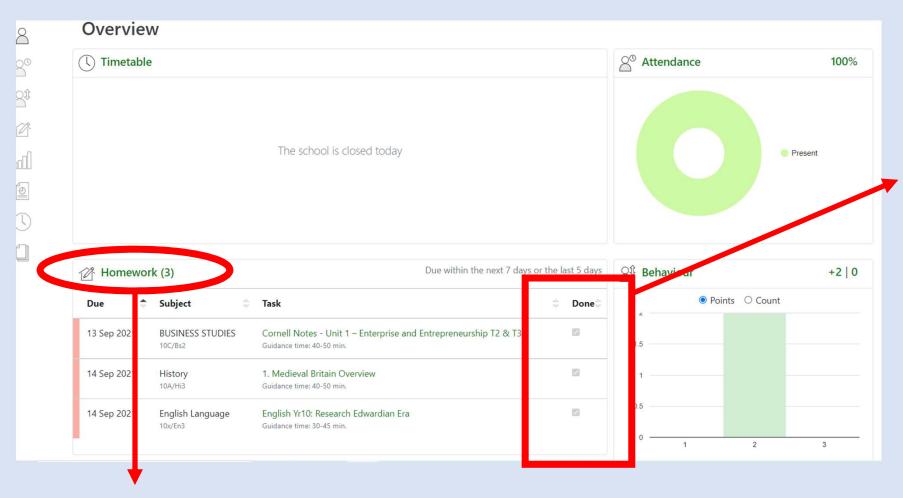
x2 no homework in one subject = Automated message sent home

x3 no homework in one subject = Teacher contacts home

x3 no homework in multiple subjects = Strategy Leader informal meeting to discuss issues

x4 no homework in multiple subjects = Strategy Leader and parents/carers formal meeting to discuss issues

Year Strategy Leaders will also be monitoring homework completion and speaking to students who are struggling to keep on top of their homework. Homework reports will be issued if homework continues to be not completed.



Click homework for full details and to see past homework pieces.

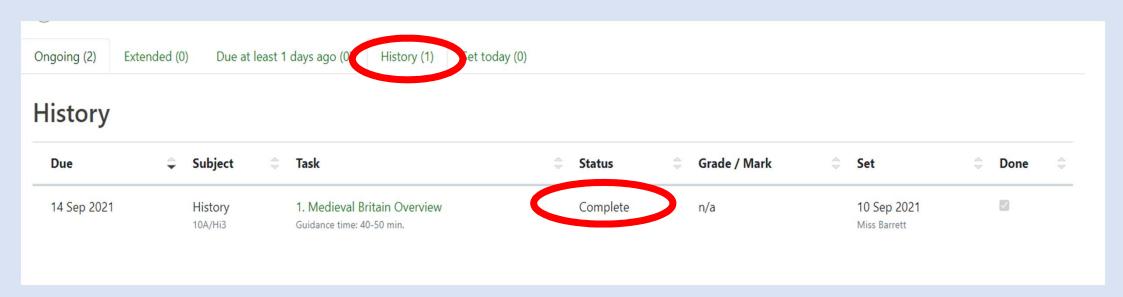
Once a homework has been marked as complete by the subject teacher it will disappear from the homepage view.

Students can tick homework tasks off as complete.

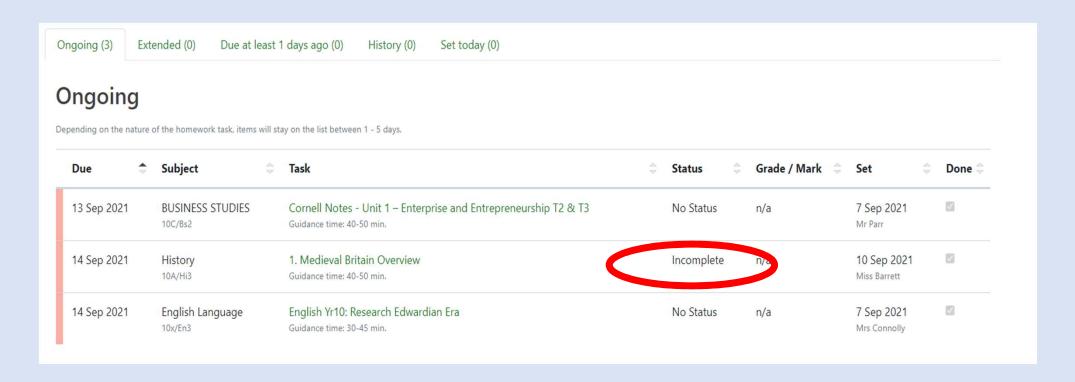
Until they are received by the subject teacher they will remain as active.

In lesson teachers will log homework as either:

Complete
Incomplete
Absent when set
Absent when due
Late



Once a homework has been marked as complete by the subject teacher it will disappear from the homepage view but can be found under History.



Homework that has been marked as incomplete will remain 'ongoing' and appear on the homepage.

Click the homework title for more details, this is where you will see if a teacher has marked the piece as incomplete.

# Homework Timetables have been shared with students but also available on the school website











Parents will be informed if homework is not being completed regularly. If this becomes a persistent issue, Heads of House and/or Year Strategy Leaders will intervene to provide additional support and monitoring.

Students follow homework timetables that coincide with their two week timetable. Their homework timetable will be recorded in their Student Planners and is also available below.

Year 7 Homework Timetable September 2022

Year 8 Homework Timetable September 2022

Year 9 Homework Timetable September 2022

Year 10 Homework Timetable September 2022

Year 11 Homework Timetable September 2022

Click on the homework tab then scroll down to select year

# Homework (Week 1)

Each piece should take 40 to 50 minutes to complete.

		9X	9Y
	Monday	Maths	Maths
		9XK-RS	9YO-RS
		9XL-Co	9YP-Hi
	Tuesday	French	German
		9XK-Ar	9YO-Hi
e		9XM-Co	9YP-RS
One	Wednesday	Science	Science
Week		9XL-Ar	Science
	Thursday	9XK-Hi & Gg	DT
		9XL-R\$	9YO-Gg
		9XN-Gg	9YP-Gg
	Friday	English	
		9XK-Co	English
		9XL-Gg	

# Homework (Week 2)

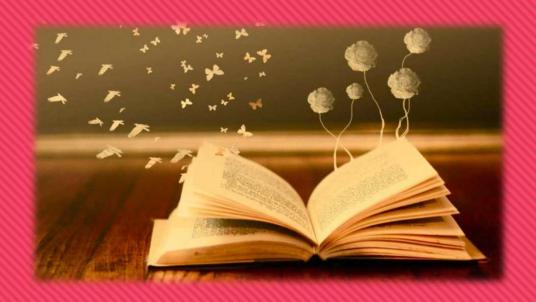
Each piece should take 40 to 50 minutes to complete.

		9X	9Y
Week Two	Monday Tuesday	Science DT 9XM-Ar 9XN-Co 9XL-Hi 9XM-RS 9XN-Hi	Science 9YO-Co 9YQ-Ar 9YQ-Gg & Hi 9YR-RS
	Wednesday	Maths	Maths 9YO-Ar 9YQ-RS 9Yr-Co 9YP-Ar
	Thursday	9XM-Hi 9XN-Ar	9YQ-Co 9YR-Hi & Gg
	Friday	English 9XM-Gg 9XN-RS	English 9YP-Co 9YR-Ar

# **Key Dates**



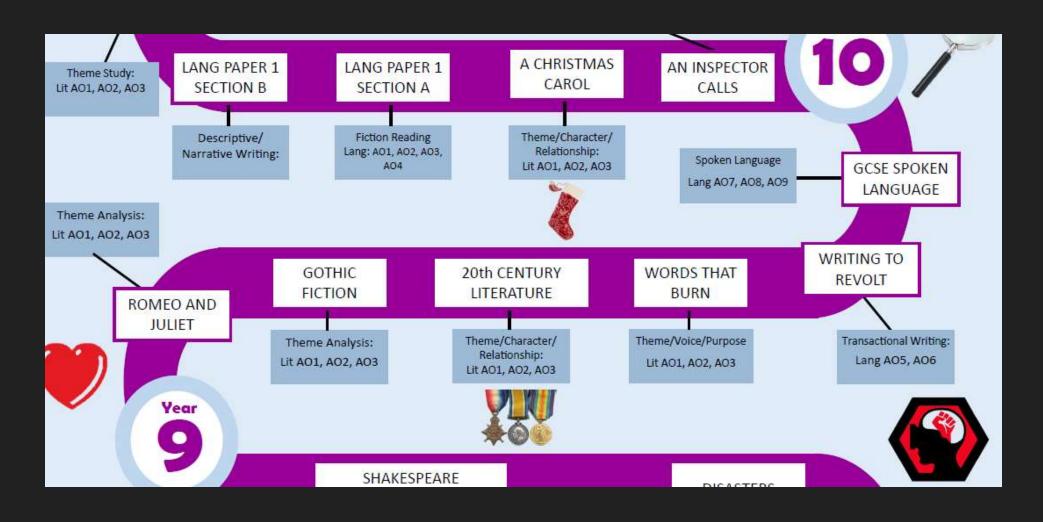
Date	Event
20/09/22	Year 9 Strategy Launch to Parents
23/11/22	Effort & Current Grades
16/02/23	Year 9 Reports available on G45
02/03/23	Year 9 Options Evening
23/03/23	Year 9 Parent Consultation Evening
w/c 19/06/23	Exam Week
20/06/23	Work Experience Launch Evening
07/07/23	Effort & Current Grades

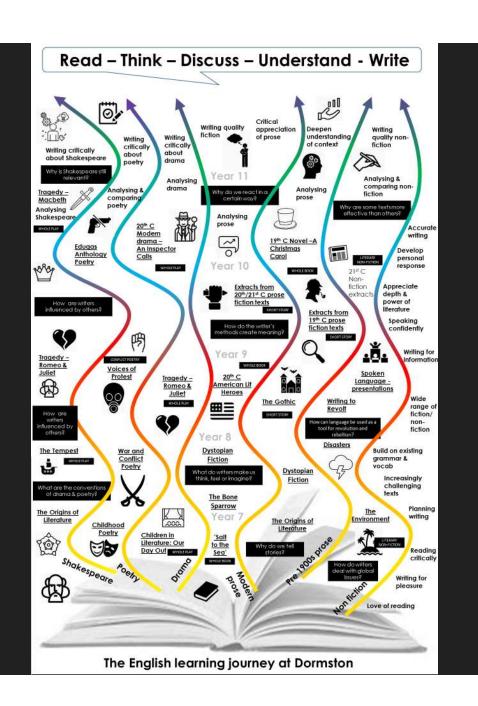


# Welcome to Year 9!

Mrs Lauren Barley KS3 Co-ordinator

# What Year 9 will look like...





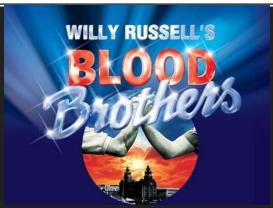
# **Exploring Each Topic:**





<b>Y9 HT1</b>	<b>Y9 HT2</b>	<b>Y9 HT3</b>	<b>Y9 HT4</b>	<b>Y9 HT5</b>	<b>Y9 HT6</b>
7 weeks	7 weeks	7 weeks	6 weeks	5 weeks	6 weeks
Romeo and Juliet	Gothic Fiction	Whole Text Contemporary Novel	Voices of Protest	Writing to Revolt Blood Brothers	





### A change in approach:

- O This year, The English Department are changing their approach to teaching the material for our KS3 pupils
- We want our pupils to have a rich and broad curriculum that builds upon the skills of Year
   8 and lends itself to the developing and approaching challenge of Year



- Each child will be set homework once a week for English
  - O This homework may be a prereading activity to support learning ahead of a new topic
  - O Homework could also be something to challenge the understanding of a topic covered during the lesson

### Supporting Learning at Home...

- Each topic of work, your child will be provided with a Knowledge Organiser to support their understanding of the topic and aid their revision
- Support booklets are also provided for those eligible for extra provision with tasks suitable for pupils to complete work at home
- We would like to take this opportunity to thank all of our parents and carers for supporting us at home



### **KS3 Newsletter**

#### The English Department KS3 Autumn Newsletter

Welcome back: We are so pleased to welcome you back into our classrooms. Hopefully you have had a much needed break and have had time to relax ahead of a busy year. Times have been incredibly tough and we all have learnt a lot over the past two years. Now is the time to prove to yourselves d what you're capable of.

Home Learning: All resources are available for you on Go4Schools.

Make sure you communicate with your class teacher to maintain the pace of the class.

#### Year 7

#### Autumn 1: Myths and Legends – The Origins of Literature

What an exciting topic to start the new year with! We are thrilled to be able to offer you the opportunity to study texts right from the beginning of storytelling, learning all the fantastic writing techniques that authors have used over the centuries and building it into your own pieces of creative writing





#### Year 8

#### Autumn 1: Dystopian

How fascinating for you to be able to study an entirely new genre of writing! Have you ever considered what the end of the world would be like? Or maybe if a deadly tornado rips through your town leaving it decimated? You're about to find out how to build in all these writing skills into your own writing

#### Year 9

#### Autumn 1: Romeo and Juliet

One of Shakespeare's most famous plays; Romeo and Juliet. You will study the characters and relationships throughout this text so that you are fully confident with the style of language. Plunging into plots of love, suicide and revenge, Romeo and Juliet will have you on the edge of your seat!



# Reading

Led by Mr D Fox

One in six people in the UK struggle with literacy. This means their literacy is below the level expected of an eleven year old.



O41% of 11-15 year-olds in England do not participate in reading that are not required for school in their spare time.

OBiggest influence is parents.

## Benefits of reading:

- Evidence suggests that children who read for enjoyment every day...
- operform better in reading tests.
- o develop a broader vocabulary.
- o increased general knowledge.
- a better understanding of other cultures.
- leads to lifelong learning.
- Increased social mobility.

#### 20 Minutes of Reading Tonight?

Student "A" reads 20 minutes each day

3600 minutes in a school year

Student "B" reads 5 minutes each day

900 minutes in a school year

Student "C" reads 1 minute each day

180 minutes in a school year

1,800,000 words



90th percentile

282,000 words



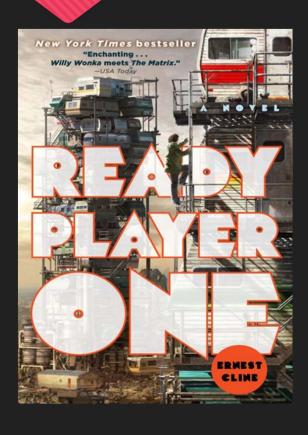
50th percentile

8,0<u>00</u> words



10th percentile

## Parent & Pupil Reading Group



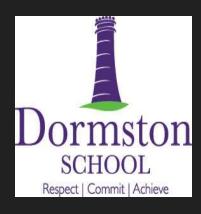


## We encourage students to read independently for at least 30 minutes per day at home.

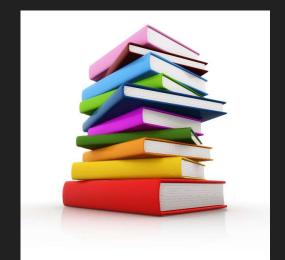
Please complete the reading log in your planner every day with - how many minutes reading you have done. Your parent/carer must initial this. Your planner will be checked regularly by teaching staff.

Week	Date	Name of Book	M	ON	TI	JE	W	ED	TI	1U	F	RI	S.	AT	SI	JN
2	06-Sep		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								
_													1022200		10.2.000	
3	13-Sep		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								
4	20-Sep		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								
5	27-Sep		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								
6	04-Oct		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								
7	11-Oct		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								
8	18-Oct		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								
Half Term	25-Oct		Mins:	Initial:	Mins:	Initial:	Mins:	Initial:								

#### **Parents**



# Supporting Your Child's Literacy



## Maths at Dormston

Welcome to Year 9

Mrs R. Bal KS3 Co-ordinator

Home learning		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
			Algebraic Thinking						Place Value and Proportion					
	Autumn	Sequences alge		rstand use oraic ation		ality and i ordering i		ace value and ring integers and decimals		Fraction, decimal and percentage equivalence				
			Applications of Number						Directed Number			Fractional Thinking		
	Spring	prob with a	ving lems ddition raction	with i	ng prob multiplic nd divisio	ation	Fractions & percentages of amounts	Ope equ direc	erations vations v	vith	Addition and subtraction of fractions			
П			Lines and		d Angle	S		Reasoning			with Number			
	Summer	measu	Constructing, measuring and using geometric notation  Constructing, Developing geometric notation						oping nber nse		and ability	numbe	me ers and oof	

me <u>rning</u>	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
		Pro	portiona	l Reaso	ning		Representations						
Autumn	Ratio and scale			licative nge	Multiplying and dividing fractions		Working in the Cartesian plane			Representing data		Tables & Probability	
	Algebraic technic				ies		Developing Number						
Spring	Bra	ckets, ec inequ	<sub>l</sub> uations alities	and	Sequences	Indices		actions a ercentag		Stan index		Number sense	
		Developing Geom					Reasoning with Data						
Summer	Angles in Area of Line parallel lines trapezia and symmetr and polygons circles and reflect		netry	The data handling cycle :		Measu loca	res of tion						

Home learning		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
			Reasoning with Algebra						onstruct	ing in 2	and 3 D	imensio	ns
	Autumn	Straight line graphs		solv	ng and ving tions conject		_	Three dimensional shapes			Constructions and Congruency		
		Reasoning with Number						Reasoning with Geometry					
	Spring	Numbers Using percentages			Ŭ		chs and Deduction Rotation transla			, ,			
			Reaso	oning wi	ning with Proportion					Represe	ntations		
	Summer	Enlargement Solving ratio and and similarity proportion problems		Rates	Solving problems using graphs, tables algebra				s and				

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
			Simi	larity			Developing Algebra						
Autumn	Congruence, similarity and enlargement			Tri	gonome	Representing solutions of equations and inequalities			uations	Simultaneous equations			
	Geometry						Proportions and Proportional Change						
Spring	_	Angles & Working bearings circle			Yectors :			os & tions	Percentages and Interest		* i Propanilit\		
	Delving into data								Using r	number			
Summer	Collecting, representing and interpreting data					calcu	on- ulator hods	numb	es of er and ences		es and ots		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
			Gra	phs			Algebra						
Autumn	Gradients & Non-linear lines graphs			Using graphs		Expanding & Factorising		Changing the subject		Func	tions		
	Reasoning						Revision and Communication						
Spring	Multiplicative Geometric			Alge	braic	8	orming & ructing		ng & ribing	Show	that		
Summer	Revision								Examir	nations			



SCHOOL socialpe is Strength	Year 7	Year 8	Year 9	Year 10	Year 11			
Algebra: Sequences	Autumn block 1     Recognise linear and non-linear sequences  Autumn block 2     Generate sequences from an algebraic rule	Revise and extend Y7     coverage to include more     complex rules     Additional Higher content     Find the rule for the nth     term of a linear sequence	Autumn block 3     Testing conjectures about sequences  Summer block 6 You could use the revision block to extend Y7/8 content including:     Representing sequences     Find the rule for the n <sup>th</sup> term of a linear sequence	Summer block 3 Revise and extend KS3 content, including names and types of sequences Higher tier content Find the rule for the nth term of a quadratic sequence Sequences with surds	Spring block 3 • Review KS3 and Y10 coverage			
Se		KS3 National Curriculum		KS4 National Curriculum				
	<ul> <li>recognise arithmetic sequen</li> </ul>	e from either a term-to-term or a ces and find the n <sup>th</sup> term ces and appreciate other sequenc	In addition to consolidating subject content from key stage 3, pupils should be taught to:  • recognise and use sequences of triangular, square and cube numbers, simple arithmetic progressions, Fibonacci type sequences, quadratic sequences, and simple geometric progressions (rn where n is an integer, and r is a positive rational number {or a surd}) {and other sequences}  • deduce expressions to calculate the nth term of linear {and quadratic} sequences					

#### Maths books front/inside covers

Current GradeY9 target GradeY11 target GradeEffort GradeNext steps:



#### Feedback in Maths



As a Mathematics department, we understand that feedback on your learning is very important to help you to develop your skills and improve. These are some of the ways your Maths Teacher will provide feedback.

#### RAG sheets from MathsWatch

These RAG sheets show you your strengths and areas to improve from your 8 question MathsWatch homework tasks. Your teacher will then use these results to help you address



any gaps in learning; you should also use these to watch the videos provided. You should expect these roughly twice every half term (although this may differ when you have other assessments and feedback).

#### **RAG** sheets from Assessments

These RAG sheets show you your strengths and areas to improve from your end of term topic tests. Your-teacher will then use these results to help you address any gaps in learning; you should also use these to watch the videos provided. You should expect these every term.

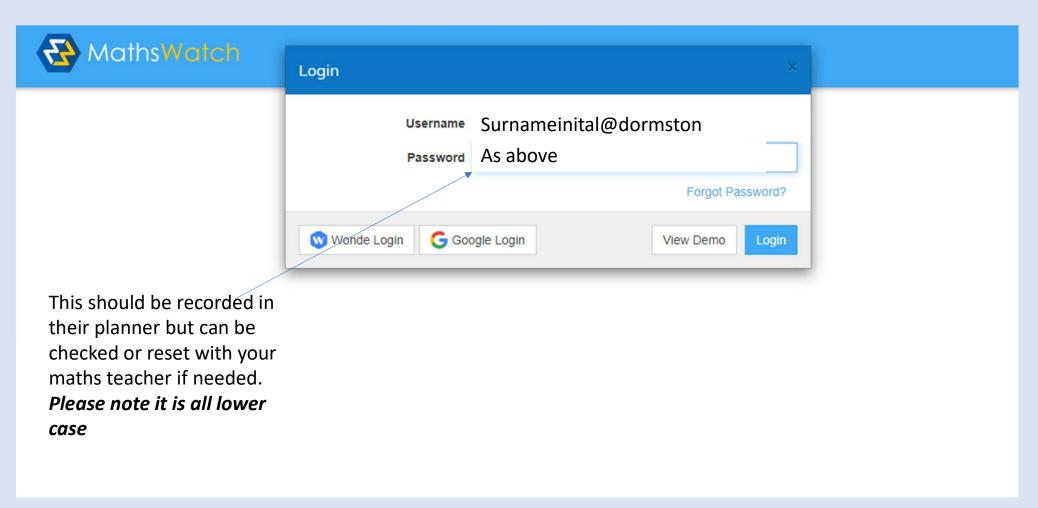
#### Mini Whiteboards

Every time you use your Mini Whiteboard, your teacher is assessing what you are learning. You will receive immediate feedback when the correct answers are shared to show you (and your teacher) where you are with your learning and to identify next steps.

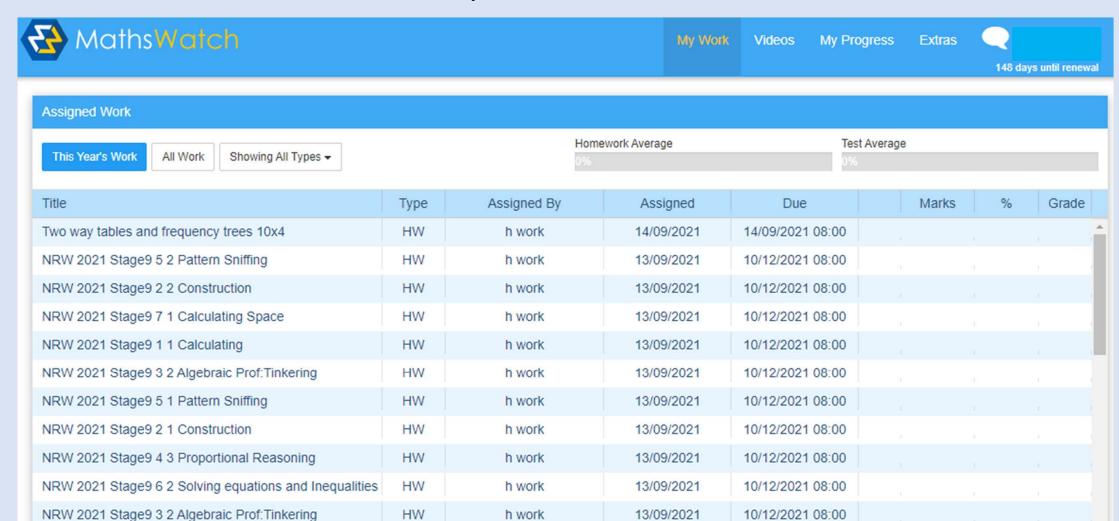
#### Live Marking and Verbal Feedback

#### Accessing maths watch and non required work

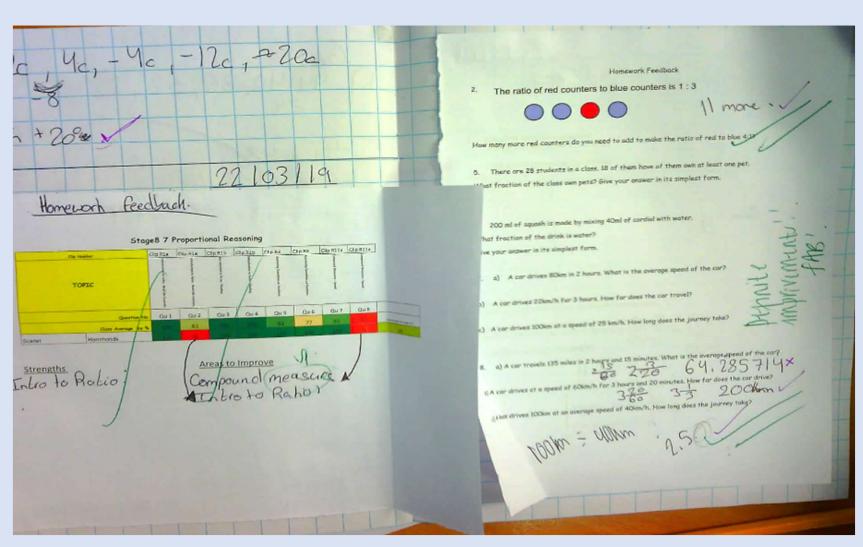
1. Google search: mathswatch vle



#### Difference between non required work and homework set



#### Marking and assessment feedback



#### Other useful *hints and* websites

- Pinpoint learning year 11
- Corbett maths
- Maths genie
- Maths kitchen some areas are free but can pay for premium
- Whiterose maths
- Whiterose homelearning
- Onmaths Can register to see progress
- Mathsgenie

#### Any questions please contact the following:

Rbal@dormston.dudley.sch.uk (Key stage 3 coordinator)

Mrock@dormston.dudley.sch.uk (Key stage 4 coordinator)

<u>Ljacques1@dormston.dudley.sch.uk</u> (Curriculum leader for mathematics)

## Science at Dormston

MISS E WARD - CURRICULUM LEADER FOR SCIENCE

MISS J GREGORY- KS4 CO COORDINATOR (YEAR 9-10)

MRS R JAI- SECOND IN SCIENCE / YEAR 11

#### YEAR 9 COMBINED SCIENCE TRILOGY

Students in **sets 2 to 5 in Year 9** (both X and Y population) will study GCSE Combined Science Trilogy. They will be assessed terminally at the end of Year 11 and complete **six 1 hour 15 minute exams in Biology, Chemistry and Physics topics.** Students will complete three exams during exam week to assess knowledge

and understanding.

	<u>Topic</u>	Link to Prior Learning	<u>Topic</u>	Link to Prior Learning
ımı 1	B1 Cells  RP1 – Microscopy	B1.1 Cells	C1 Atomic Structure & the Periodic Table	C2.1 The Periodic Table C2.2 Separation Techniques
Autumn	RP2 - Osmosis			
7	P1 Energy	P2.2 Energy	B2 Organisation	B1.2 Structure and Function of Body Systems
힐	RP14 – Specific Heat		RP3 – Enzymes	B2.1 Health & Lifestyle
Autumn 2	Capacity		RP4 – Food Tests	B1 Cells
	C2 Structure, Bonding & the Properties of	C1.1 Particles and their Behaviour	P3 Particle Model of Matter	C1.1 Particles and their Behaviour
2	Matter	C1 Atomic Structure & the	Watter	P2.3 Motion and Pressure
Spring 1	···········	Periodic Table	RP17 - Density	C2 Structure, Bonding &
S				the Properties of Matter
	B3 Infection &	B1.1 Cells	C9 Chemistry of the	C2.4 The Earth
Spring 2	Response	B1 Cells	Atmosphere	
-	B4 Bioenergetics	B2.2 Ecosystems Processes B2 Organisation	P4 Atomic Structure	C1.2 Atoms, Elements and Compounds
ner	RP5 – Photosynthesis	B2 Organisation		C1 Atomic Structure & the
Summer				Periodic Table
Summer 2	Revision, End of Year Asse	essment & Application-Base	ed Learning	1

#### YEAR 9 Triple SCIENCE

Students in **9X1** and **9Y1** will be preparing to study AQA Separate Sciences. They will follow the same timeline as the rest of the year group but will be taught all Separate Science content. They will be assessed terminally at the end of Year 11 and complete six **1 hour 45 minute exams in Biology, Chemistry and Physics topics.** Students will complete three exams during exam week to assess knowledge and understanding.

Continued delivery of the AQA Separate Sciences course will be reassessed following the end of year exams in June 2023.

	<u>Topic</u>	Link to Prior Learning	<u>Topic</u>	Link to Prior Learning
Autumn 1	B1 Cells  B.RP1 – Microscopy  B.RP2 – Microbiology  B.RP3 - Osmosis	B1.1 Cells	C1 Atomic Structure & the Periodic Table	C2.1 The Periodic Table C2.2 Separation Techniques
Autumn 2	P1 Energy  P.RP1 – Specific Heat  Capacity  P.RP2 – Thermal  Insulation	P2.2 Energy	B2 Organisation  B.RP4 – Food Test  B.RP5 – Enzymes	B1.2 Structure and Function of Body Systems B2.1 Health & Lifestyle B1 Cells
Spring 1	C2 Structure, Bonding & the Properties of Matter	C1.1 Particles and their Behaviour C1 Atomic Structure & the Periodic Table	P3 Particle Model of Matter P.RP5 - Density	C1.1 Particles and their Behaviour P2.3 Motion and Pressure C2 Structure, Bonding & the Properties of Matter
Spring 2	B3 Infection & Response	B1.1 Cells B1 Cells	C9 Chemistry of the Atmosphere	C2.4 The Earth
Summer 1	B4 Bioenergetics  B.RP6 - Photosynthesis	B2.2 Ecosystems Processes B2 Organisation	P4 Atomic Structure	C1.2 Atoms, Elements and Compounds C1 Atomic Structure & the Periodic Table
Summer 2	Revision, End of Year Asse	essment & Application-Base	d Learning	

#### YEAR 9 half termly retrieval topics

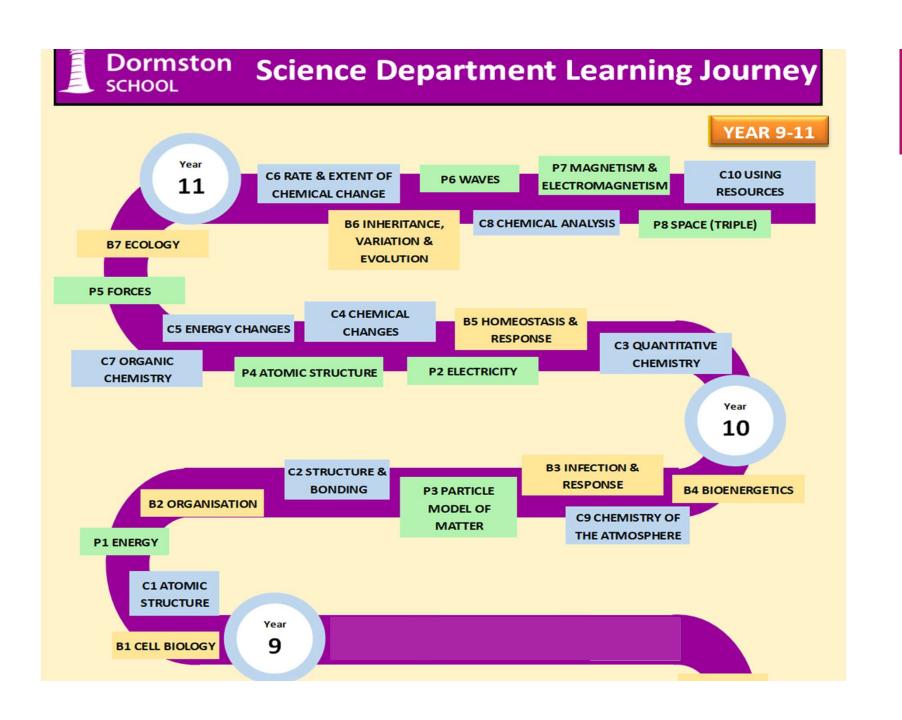
<u>+</u>	
Half term	Retrieval topic focus
Autumn 1	B1, C1
Autumn 2	C1, P1, B1
Spring 1	B2, P1
Spring 2	B2, C2, P3, C1
Summer 1	P3, B2, C9
Summer 2	C2, C9, B4, P4

#### Science books front/inside covers

End of year		
target grade		
Year 11 target		
grade		
Term	Grade achieved	Effort grade
Autumn		
Spring		
Summer		

#### **Review B1 Cell Biology**

¢an you?	0	(2)	8
B1.1 Cell Structure			
Name the main organelles of plant and animal cells (eukaryotic cells)			
Recall the relative size of bacterial cells (prokaryotic cells)			
Describe the difference in how the genetic material is found within eukaryotic and prokaryotic cells.			
Explain how the main sub-cellular structures, including the nucleus, cell membranes,			
mitochondria, cell wall and chloroplasts in plant cells and plasmids in bacterial cells are related to their functions			
Explain how the structure of different types of cell relate to their function in a tissue, an organ or			
organ system, or the whole organism. Including sperm cells, nerve cells and muscle cells in			
animals and root hair cells, xylem and phloem cells in plants.			
Describe cell differentiation			
Describe the differences in magnification and resolution between electron and light microscopes			
Define binary fission (biology only)			
Explain how to prepare an uncontaminated culture (biology only)			
B1.2 Cell division			
Recall that the nucleus of a cell contains chromosomes made of DNA molecules. Each			
chromosome carries a large number of genes. In body cells the chromosomes are normally found in pairs			
Give an overview of mitosis			
Understand that Cell division by mitosis is important in the growth and development of multicellular organisms			
Recognise and describe situations where mitosis is occurring.			
Define a stem cell			
Recall that stem cells from human embryos and adult bone marrow can be cloned and made to differentiate into many different types of human cells			
Name some conditions which may be helped by treatment with stem cells			
Discuss the ethical or religious objections and potential risk of stem cell use			
Recall that stem cells from meristems in plants can be used to produce clones of plants quickly and economically and describe possible uses			
B1.3 Transport in cells			
Explain how substances may move into and out of cells across the cell membranes via diffusion			
Describe diffusion			
Recall that some of the substances transported in and out of cells by diffusion are oxygen and carbon dioxide in gas exchange, and of the waste product urea from cells into the blood plasma			
for excretion in the kidney			
Describe factors the affect the rate of diffusion			
Recall that a single-celled organism has a relatively large surface area to volume ratio to allow sufficient transport of molecules into and out of the cell			
Explain how the small intestine and lungs in mammals, gills in fish, and the roots and leaves in			
plants, are adapted for exchanging materials			
List factors that increase the effectiveness of an exchange surface			
Describe osmosis			
Recall that active transport moves substances from a more dilute solution to a more			
concentrated solution (against a concentration gradient). This requires energy from respiration.			
Link the structure of a root hair cell to its function.			
Describe a use for active transport in both plants and animals			



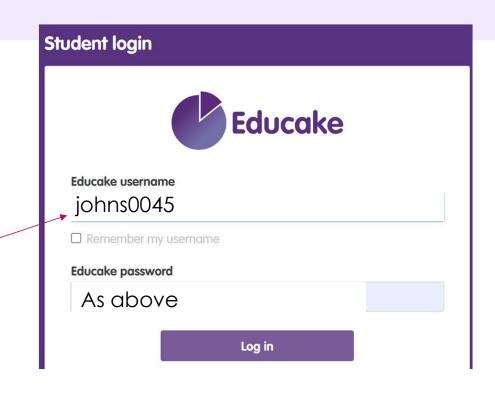
1. Google search: educake

Accessing Science homework and non required work

Free 30-day trial Teacher login Student login

Teachers At home Subjects > News Pricing Contact





This should be recorded in their planner but can be checked or reset with your teacher if needed. Please note it is all lower case

#### Marking and assessment feedback

(Total 5 marks)

Q1.

Read the information about stem cells.

Stem cells are used to treat some human diseases.

Stem cells can be collected from early embryos. These stem cells have not begun to differentiate, so they could be used to produce any kind of cell, tissue or organ. The use of embryonic stem cells to treat human diseases is new and, for some diseases, trials on patients are happening now.

Stem cells can also be collected from adult bone marrow. The operation is simple but may be painful. Stem cells in bone marrow mainly differentiate to form blood cells. These stem cells have been used successfully for many years to treat some kinds of blood disease. Recently there have been trials of other types of stem cell from bone marrow. These stem cells are used to treat diseases such as heart disease.

Evaluate the use of stem cells from embryos or from adult bone marrow for treating

human diseases.

You should give a conclusion to your evaluation.

Q1.

Marks should **not** be awarded for simply copying the information provided A mark may be awarded for a <u>comparison</u> between treatments if the answer only involves copied information

any four from:

For all 4 marks to be awarded, there must be at least 1 pro and 1 con

embryo stem cells - examples of

pros

- can treat a wide variety / lots of diseases / problems
- many available / plentiful
- using them better than wasting them
- painless

cons

- (possible) harm / death to embryo
- (relatively) untested / unreliable / may not work
   allow long term effects not known
   or may be more risky
- embryo can't be 'asked' / 'embryo rights' idea

adult bone marrow stem cells - examples of

pros

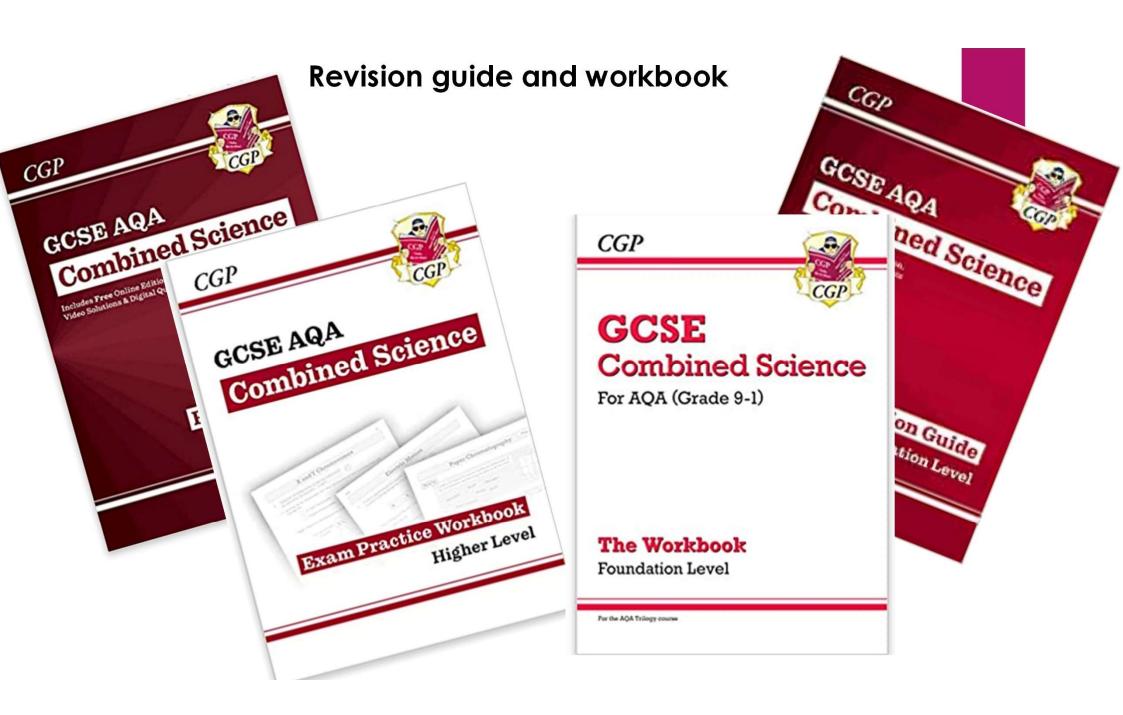
- no ethical issues (in collection) or permission given
- quick recovery
- (relatively) safe

allow does not kill (donor) / low risk

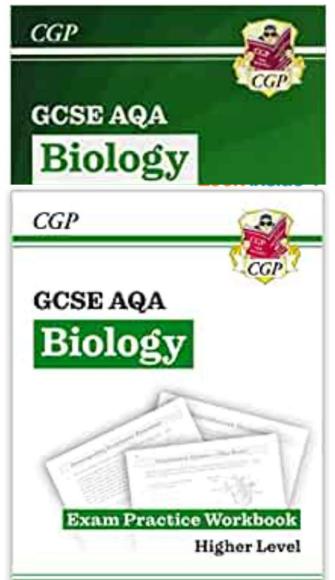
well tried / tested / know they work

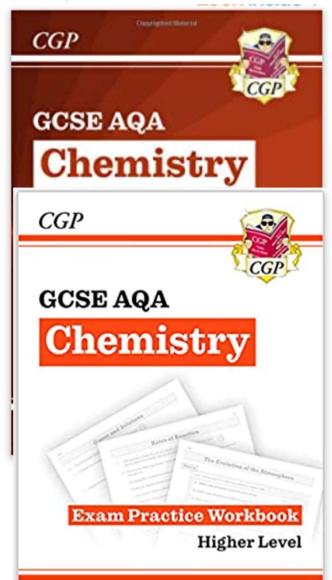
cons

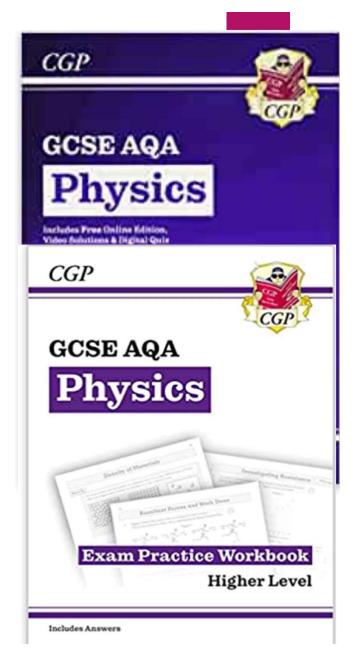
- operation hazards eg infection
- few types of cell / tissue produced or few diseases / problems treated
- painful so may deter donors



Revision guide and workbook







#### Other useful hints and websites

- Cognito –free to sign up– year 9-11
- Seneca free to sign up year 9-11
- Free Science lessons (youtube clips) year 9-11
- Savemyexams
   – some areas are free but can pay for premium
- Physics and maths tutor- year 9-11

#### Any questions please contact the following:

josmond@dormston.dudley.sch.uk (Key stage 4 coordinator)

eward@dormston.dudley.sch.uk (Curriculum leader for science)

rjai@dormston.Dudley.sch.uk (second in science)

# Thank you for your support – if you have any questions please get in touch...

Behaviour, attendance or welfare: Head of House

Avon: PAmos@dormston.dudley.sch.uk

Derwent: RDownie@dormston.dudley.sch.uk

Severn: JWilkes@dormston.dudley.sch.uk

Trent: MPlant@dormston.dudley.sch.uk

Progress, effort, attainment or PSHE/RSE: NGarrett@dormston.dudley.sch.uk

Subject specific: Head of Department or Subject Teacher

SEND: KBeer@dormston.dudley.sch.uk