



Dale Avenue, Hassocks, West Sussex, BN6 8LP

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Headteacher: Mr M Wignall

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Dear Parent/Carer

Science in Year 9

Please find below some important information about how you can support your daughter/son in Year 9.

Preparation for success

Resources	Description	Cost Summary
CGP Essential Maths Skills for GCSE Science	This book may help if you struggle with maths practice in science – £3 Please pay online via Scopay and collect from the science technicians. .	£3

- **Equipment:** It is important that students have the correct equipment for both lessons and examinations. Students should have a scientific calculator, two black pens, pencil, rubber, protractor and a ruler.

Paper 1 and Paper 2 Content:

- All students will sit six science examination papers in year 11. The year 9 exam will cover the first topics of each science.

AQA Exam papers

Biology	Chemistry	Physics
Paper 1 1. Cell biology 2. Organisation 3. Infection and response 4. Bioenergetics	Paper 1* 8. Atomic structure and the periodic table 9. Bonding, structure, and the properties of matter 10. Quantitative chemistry 11. Chemical changes 12. Energy changes	Paper 1 18. Energy 19. Electricity 20. Particle model of matter 21. Atomic structure
Paper 2 5. Homeostasis and response 6. Inheritance, variation and evolution 7. Ecology	Paper 2 13. The rate and extent of chemical change 14. Organic chemistry 15. Chemical analysis 16. Chemistry of the atmosphere 17. Using resources	Paper 2 22. Forces 23. Waves 24. Magnetism and electromagnetism

In Science, we say '**Think DTT**'. Students become familiar with this new terminology throughout their GCSE. DTT stands for '**Diagnosis**', '**Therapy**' and '**Testing**' and is a means of students ensuring that they are successful in learning the subject content.





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Diagnosis

At appropriate times, we issue students with **Personal Learning Checklists (PLC's)**. These provide the bases of your son/daughter's revision. They 'RAG' all topics they have covered by using Red, Amber or Green marks to indicate how well they understand and know the topic.

Red = Don't know the topic

Amber = OK

Green = Know the topic and don't need to revise it

Students then need to apply some 'Therapy' to these areas by using the materials below to revise those areas in Red and then those in Amber until all topics are in Green.

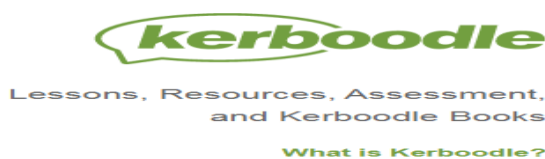
Therapy

The following resources can be used:-

Moodle: This is invaluable. Students need to log onto Moodle and go to the GCSE Science course. Then go to the GCSE combined science trilogy course. Here students will find:-

- **Flash cards:**— a very valuable resource that can be bought for £6 a set if you don't want to run them off at home. Please pay online via Scopy and take proof of purchase to the Science technicians to collect
- **Placemats** which help start revision by making you research the knowledge – also very helpful
- The specification
- Exam command words
- Subject specific vocab

Kerboodle: This is our online text book and is accessible to all of **Year 9 from after the October half term break**. This can be used to reinforce work not covered in class or to make revision notes. Students have their own password for this.



Username/Email

first initial and surname

Password

.....

Institution Code

SK2

Remember me

Log in

[Trouble logging in?](#)

- **Useful websites are:-**

Freesciencelessons.co.uk

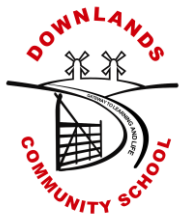
[My GCSE Science](#)

[BBC Bitesize](#)

Testing

- **Doddle:** An excellent way to cover content. It is more important to repeat these until you have a high score. Better to complete one quiz and get 80% than do 3 and have 40% in each.
<https://www.doddlelearn.co.uk/>





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- **Practice Exam Questions:** Invaluable are the example questions on every topic in the three subjects in Moodle. If you click the link, about 12 questions come up for every topic. The answers can also be obtained from here.
- **Past Exam papers:** Please pay for these online and collect from the Science technicians on proof of purchase. £3 for a set. £9 for Triple Science.
- **Revision Book:** We hope every student has bought this.
- **Maths in Science:** This is a large component of the GCSE. Again if students need practice in this area these are available from the science technicians.

Help

Science Workshops:- When:- Every Monday Where:- S3 Time:- 1.15-1.45pm.	Morning Doodle:- When:- Every Thursday Where:- C3 Time:- 8.00am – 8.40am	1:1 Tutoring There is a signup sheet on the science office door where you can book 1 to 1 help in a lunchtime session.
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Homework

Every week students will be expected to complete one Doodle quiz set on Monday for the following Monday, as well as their other homework. If these are not completed they will be asked to attend the

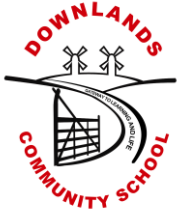
Tuesday Science Workshop on the first occasion and then assigned to homework detention in line with school policy for further non-completion.

Yours faithfully

M Urwin

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2 i/c Science





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Equations Covered by the end of year 9

Word equation	Symbol equation
weight = mass × gravitational field strength (g)	$W = m g$
work done = force × distance (along the line of action of the force)	$W = F s$
kinetic energy = $0.5 \times$ mass \times (speed) ²	$E_k = \frac{1}{2} m v^2$
gravitational potential energy = mass × gravitational field strength (g) × height	$E_p = m g h$
power = $\frac{\text{energy transferred}}{\text{time}}$	$P = \frac{E}{t}$
power = $\frac{\text{work done}}{\text{time}}$	$P = \frac{W}{t}$
efficiency = $\frac{\text{useful output energy transfer}}{\text{total input energy transfer}}$	
efficiency = $\frac{\text{useful power output}}{\text{total power input}}$	

