



# Y9 & 10 INFORMATION EVENING

## SCIENCE

# COURSE



We cover the content from the AQA exam board. The details of the specification can be found on their website.

<http://www.aqa.org.uk/subjects/science/gcse>

Triple – biology (8461), chemistry (8462), physics (8463)

Double – combined trilogy (8464)

# GROUPINGS + PATHWAYS



## **For current Y9 and 10s**

Students chose their long thin option of combined science (double) or triple science in Y8.

The students are put into sets based on their option choice and their KS3 data in science.

This allows students to be taught at appropriate pace and those who need more support to be taught in smaller classes.

It is not possible to change between combined and triple since the lessons are different from the start of Y9.

Students have 4 hours of science per week for combined or 6 hours per week for triple science

# S C H E M E O F W O R K



	Y9	Y10	Y11
Biology	Cell biology	Bioenergetics	Inheritance
	Organisation and the systems of the body	Biological responses	Reproduction and evolution
	Infection and response	Homeostasis	Ecology
Physics	Energy	Forces	Waves
	Particles	Electricity	
	Atoms (and Space for triple award students only)	Electromagnetism	
Chemistry	Atomic structure and the periodic table	Chemical changes	Organic chemistry
	Structure and bonding	Energy changes	The atmosphere
	Chemical changes (triple)	Quantitative chemistry	Using resources
<p>Students doing combined science will have one lesson of biology, chemistry and physics a week, the fourth lesson will rotate</p> <p>Students doing separate sciences will do all three sciences, in parallel, 2 hours a week each</p>		Chemical analysis	
		Rate and extent of chemical change	

# ASSESSMENT + LEVELLING



Students complete a test at the end of each topic.

Students will be given their score, along with feedback on how to improve the sub-topics they found more challenging.

Different topics and questions may be easier or harder, so we cannot use a score on one test to give a prediction of a grade at the end of Y11.

Students will also do various assessments in class and as homework to show them and their teacher what they do not understand yet.

# EXAMS



All students sit 6 science exams at the end of Y11. Two each for biology, chemistry and physics. Students are told which topics could be asked on each paper.

Combined science students sit 70 mark exams lasting 1 hour 15 minutes.

Triple science students sit 100 mark exams lasting 1 hour 45 minutes.

# EXAMS



Students will be entered for higher tier or foundation tier based on the grade they obtain in the mock exams in year 11 and prior assessment data from year 9 and year 10.

Tiers of entry will be decided by teaching staff for mock exams in year 10 and year 11. Student scores in these assessments will influence the final tier of entry for the GCSE exams.

The next couple of slides have been taken from the AQA website as an example of how the exams will be structured

# ASSESSMENT – BIOLOGY - TRIPLE



## Paper 1

### What's assessed

Topics 1–4: Cell biology; Organisation; Infection and response; and Bioenergetics.

### How it's assessed

- Written exam: 1 hour 45 minutes
- Foundation and Higher Tier
- 100 marks
- 50 % of GCSE

### Questions

Multiple choice, structured, closed short answer and open response.

+

## Paper 2

### What's assessed

Topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology.

### How it's assessed

- Written exam: 1 hour 45 minutes
- Foundation and Higher Tier
- 100 marks
- 50 % of GCSE

### Questions

Multiple choice, structured, closed short answer and open response.



# ASSESSMENT – BIOLOGY- COMBINED



## Biology Paper 1

### What's assessed

Biology topics 1–4: Cell Biology; Organisation; Infection and response; and Bioenergetics.

### How It's assessed

- Written exam: 1 hour 15 minutes
- Foundation and Higher Tier
- 70 marks
- 18.7 % of GCSE

### Questions

Multiple choice, structured, closed short answer, and open response.

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## Biology Paper 2

### What's assessed

Biology topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology.

### How It's assessed

- Written exam: 1 hour 15 minutes
- Foundation and Higher Tier
- 70 marks
- 18.7 % of GCSE

### Questions

Multiple choice, structured, closed short answer, and open response.

# HOW DO TIERS WORK? – TRIPLE SCIENCE



Higher tier grades	Foundation tier grades	Exam structure	
9	Not available	Level 3 (hardest) questions (60% of higher paper)	
8			
7			
6			
5	5	Level 2 Questions (40% of both foundation and higher papers – same Qs both papers)	
4	4		
U – some years the exam board has also awarded a grade 3	3		Level 1 (easiest) questions (60% of foundation paper)
	2		
	1		
	U		

# HOW DO TIERS WORK? – COMBINED SCIENCE



Higher tier grades	Foundation tier grades	Exam structure	
9-9, 9-8	Not available	Higher demand questions (60% of higher paper)	
8-8, 8-7			
7-7, 7-6			
6-6, 6-5			
5-5, 5-4	5-5, 5-4	Standard demand Questions (40% of paper)	
4-4	4-4, 4-3		
U	3-3, 3-2		Lower demand questions (60% of foundation paper)
	2-2, 2-1		
	1-1		
	U		

# HOW DO TIERS AFFECT WHAT STUDENTS STUDY?



Higher tier only content and question styles	Triple only – content that is both higher tier only and triple only
Core content – on both higher and foundation tier for both combined science and triple science	Triple only – on both higher and foundation tier for triple science

Green = everyone studies

Right column (blue and grey), only if have chosen triple science, is equivalent to one third of a GCSE

Top row (yellow and grey), all will do some of this content, but will only be a key focus and included in revision if aiming for a grade 6 or above

# HOW TO SUPPORT YOUR CHILD



Ask them to explain what they are doing in science and how it works. There is a summary of topics they study at the front of their book to help guide this and the curriculum maps are currently here: [Curriculum – Notre Dame High School](#).

Help them get into good routines for going back over previous topics to check they understand and help them remember, as well as checking show my homework (Satchel:one) regularly.

The next few pages list online and offline resources you may find useful.

# HOW TO SUPPORT YOUR CHILD



Understanding how learning works. There is lots more information here:  
[The Learning Scientists](#)

Key ideas – a quiet focused environment is best for remembering what they are working on, so phones away unless needed for the task.

Retrieval – trying to remember things helps build that memory, so trying to answer questions or using flash cards to test themselves is much more effective than re-reading their book with the TV on in the background.

# HOW TO SUPPORT YOUR CHILD - ONLINE



School specific resources:

There are lots of resources on the school's G drive to support revision. This can be accessed in school or at home through the remote desktop.

Padlet

Higher: <https://padlet.com/trandall20/higher-chemistry-uokku6f3q1n43q7j>

Foundation: <https://padlet.com/trandall20/foundation-chemistry-hmizu0m0fgswt66w>

Biology: [Y11 GCSE BIOLOGY Triple and Combined Trilogy: Paper 1 and 2 \(padlet.com\)](#)

# HOW TO SUPPORT YOUR CHILD - ONLINE



The school has subscribed to Kerboodle (see images on next slides) for science this year, which provides additional resources, including online copies of the textbooks

We also recommend websites which include lots of quizzes:

<https://www.senecalearning.com/> (also available as an app)

<https://www.bbc.co.uk/bitesize/subjects/zrkw2hv> (select subject and AQA or combined science AQA trilogy, then subject)



# HOW TO SUPPORT YOUR CHILD - KERBOODLE



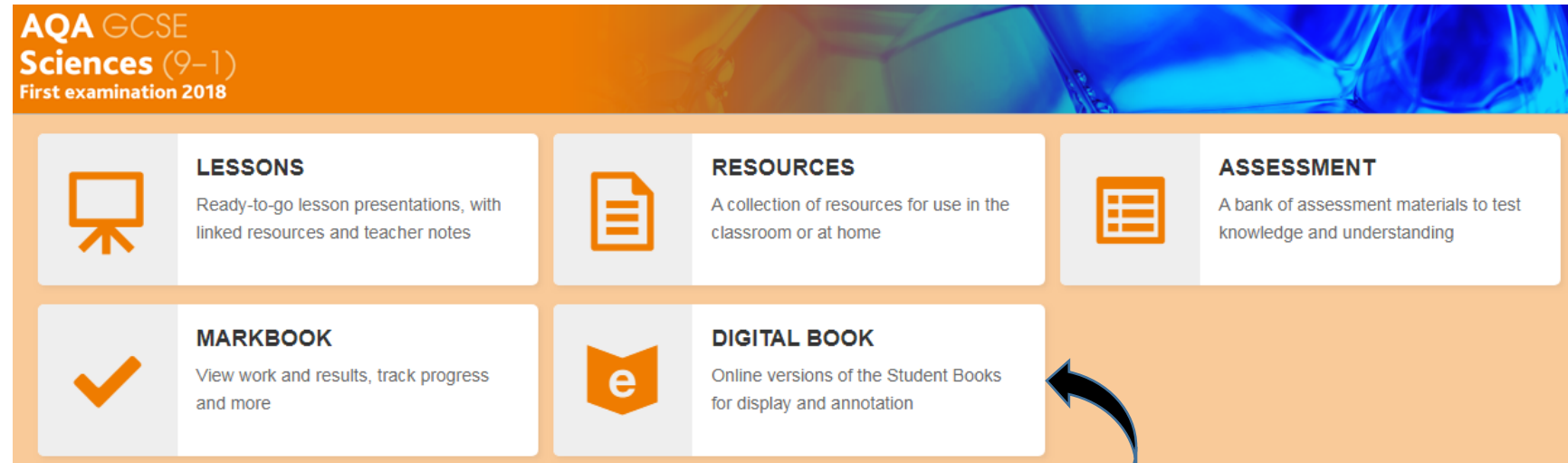
<https://www.kerboodle.com/users/login>

Username: e.g. Jane Smith would be jsmith

Password: same as username (jsmith)

Institution code: cru6

Can also log in with  
usual school details



**Copies of the textbooks**

# HOW TO SUPPORT YOUR CHILD - OFFLINE

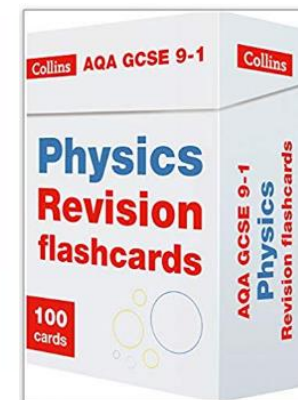
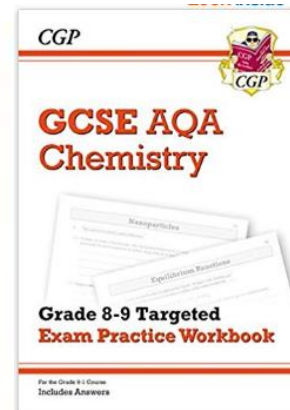
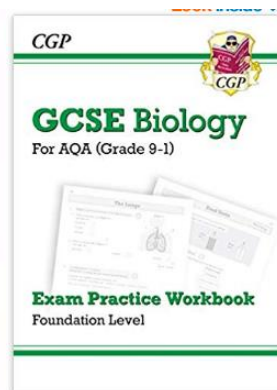
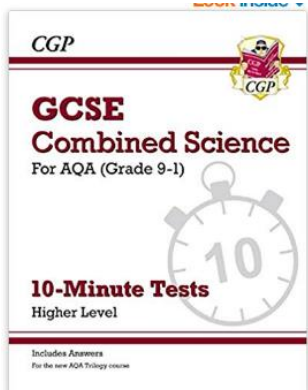


Many revision guides, workbooks and flashcards are available. Workbooks and 10 minute tests allow students to practice what they know, which helps their long term memory. Ensure any resources are for the 9-1 specification and are for either separate sciences AQA or combined science Trilogy.

Ask your child's teacher if you need guidance on higher or foundation tier.

CGP are good value for money.

Other publishers include Oxford University press (our textbooks) and Collins.



# H O M E W O R K



- Up to **45** minutes per week (in line with homework policy).
- All homework set through Show My Homework (Satchel:one).
- Students are expected to log in daily.
- Show My Homework includes a calendar, with hand in dates for all homework set – Students and parents can track tasks.
- Available online and as an app.
- Students are encouraged to ask teachers for help or to let them know of any issues prior to hand in.

# H O M E W O R K



**Satchel:one: Calendar screenshot – can filter to your child’s classes or they can log in**

The screenshot shows the Satchel:one web interface. The browser address bar displays <https://www.satchelone.com/calendar/school?year=Year%209>. The user is logged in as Dr Searle. The calendar is set to 'School calendar' for 'Year 9'. The current view is for the week of 16 Oct - 22 Oct. The calendar grid shows the following events:

Mon 16/10	Tue 17/10	Wed 18/10	Thu 19/10	Fri 20/10	Sat 21/10	Sun 22/10
<b>9s-SP4 Spanish</b> Mr W. Egurrola	<b>9MS1-CD1 Child Development</b> Miss B. Gagen	<b>9X-MA5 Mathematics</b> Mrs J. Benzies	<b>9X-EN1 English</b> Mrs I. Cramphorn	<b>9T-CH2 Science</b> Mrs R. Francis	<b>9X-EN7 English</b> Mr C. McDonnell	
<b>9T-BI3 Biology</b> Mrs S. McCole	<b>9n-FR4 French</b> Mr L. Mayo	<b>Year 9 Form Time</b> Mr J. Neal	<b>9MS1-BU2 Business</b> Mr M. Pickup	<b>Year 9 Form Time</b> Ms S. Gomes		

# CONTACT



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