



GCSE Sciences from 2016

- What do the new GCSEs look like?
- How will my son/daughter be assessed?
 - How can we support at home?



Key information:

The exam board for sciences at the Castle School continues to be Edexcel.

All examinations now have to be terminal- taken at the end of Year 11.

No Controlled Assessment Tasks- 100% examination assessed.

There will be a new 9–1 grading system, replacing A*–G

Foundation tier will cover grades 1–5. Higher tier will cover grades 4–9.

New content in-line with subject criteria outlined by the Department for Education-
greater challenge.



What are the routes?

From September 2016, there will be two routes in GCSE sciences that students can take:

1 GCSE (9-1) Combined Sciences (double award)

- The majority of pupils will follow this route.

2: GCSE (9-1) Separate Sciences

- GCSE (9-1) Biology
- GCSE (9-1) Chemistry
- GCSE (9-1) Physics

Note: There will be no single GCSE Science option.



Route 1- Combined Sciences

Topics covered throughout years 10 and 11 in all three sciences- equal weighting.

Two papers taken in each science (Paper 1 and 2) in summer of year 11.

Each exam is 1 hour 10 minutes in duration(60 marks).

Scores from these 6 exams are collated ($6 \times 60 = 360$) leading to two identical GCSE science grades (1-9).



Route 2: Separate Sciences

Same topics as Combined Science covered throughout years 10 and 11 in all three sciences.

Additional topics for each science will be taught in normal curriculum time.

Two papers taken in each science (Paper 1 and 2) in summer of year 11.

Each exam is 1 hour 45 minutes in duration (100 marks) to reflect the extra content. Scores from the 2 biology exams are collated ($2 \times 100 = 200$) leading a GCSE Biology grade (1-9).

Similarly for GCSE (1-9) Chemistry and GCSE (1-9) Physics, therefore route leads to three separate GCSE qualifications.



Extra exam information

Students will do core practical activities which are outlined in the specifications.

15% of marks in exam papers will be for knowledge, understanding and application of these practical activities and the skills associated.

Questions assessing students' use of mathematical skills will make up 10% of the assessments for Biology, 20% for Chemistry, 30% for Physics and 20% for Combined Science. There will also be some recall of equations required in Physics (both separate and combined).



Homework- why?

Homework helps students develop responsibility and life skills and the ability to manage tasks and that it provides experiential learning, increased motivation, opportunities to learn to cope with difficulties and distractions, and academic benefits

(Corno and Xu 2004; Coutts 2004; Xu and Corno 1998).



Homework- expectations

1 piece set every week (usually Friday)

Posted on *Show My Homework* with appropriate resources attached.

Good homework should:

- Consolidate classwork from that week
 - Promote independent work
- Provide opportunities for tackling questions alone.



Assessment

'You don't fatten a pig by weighing it' (old proverb – unknown origin)

Classwork marked every six lessons.

Students act on teacher feedback in green pen to make improvements- really effective process.

Short class assessment tasks at end of each sub-topic.

Formal test- used by us to track progress- at end of each module.

Year 10 exam – marked externally by exam board.



Revision

Learners retain approximately:

90% of what they learn when they teach someone else/use immediately.

75% of what they learn when they practice what they learned.

30% of what they learn when they see a demonstration.

20% of what they learn from audio-visual.

5% of what they learn when they've learned from lecture/ listening.



Effective revision

Student led revision of content taught – range of techniques in PALM+

Reading around the content for higher achievers

Revision guides will be offered through the school when available.
A letter will be sent home.

Work with a partner **effectively**, test and teach each other.

Use of exercise book, revision guides, edexcel online resources, BBC bitesize, youtube science channels.