Year 10 Parents as Partners
Science Department
“There are no secrets to success. It is the result of preparation, hard work, and learning from failure.”

~ Colin Powell
To be successful in science

• **What** do I need to know?

• What will help me to **understand** the work covered in class?

• **How** will I ensure I do well in school assessment and the exams?
What do I need to know?

Exam board: Edexcel

GCSEs: Biology, Chemistry, Physics
Qualification type: General Certificate of Secondary Education (GCSE)

Level: Level 1/2

Accreditation status: Accredited

Specification codes: 1CH0

Availability: UK and international

First teaching: 2016

First assessment: 2018
How is the course structured?

During years 10 & 11 the girls will have specialist teachers in each of the 3 sciences:

**Biology** – Key concepts + 8 topics + 8 core practicals

**Chemistry** – Key concepts + 8 topics + 5 core practicals

**Physics** – key concepts + 14 topics + 8 core practicals
How can I understand the work

- Excellent attendance – every lesson counts
- A positive attitude in lessons
- Remember, you won’t understand everything immediately – keep trying
- Ask questions in the lessons
- Wednesday lunchtime science clinic
- Use your text book
- Use BBC bitesize for another source of information.
Resources

- Text books to support the work done class.
- The girls can keep the text books until they take your exams in year 11.
- After the exams at the end of year 11, the girls will need to return their text books to KNGS science department.
- If the books are lost or are in very poor condition we will ask for the cost of a replacement copy – at the moment this price is £19.99 for each book (but the price may increase by the time you reach the end of year 11).

1. Biology
2. Chemistry
3. Physics
Resources on the internet

http://www.bbc.co.uk/education/subjects/zrkw2hv
Biology

GCSE Biology is the study of living organisms and their structure, life-cycles, adaptations and environment.

Chemistry

Chemistry is the study of the composition, behaviour and properties of matter, and of the elements of the Earth and its atmosphere.

Physics

Physics is the study of energy, forces, mechanics, waves, and the structure of atoms and the physical universe.
Solids, liquids and gases

States of matter
Solubility

7 Class Clips

Atomic structure

Particles and mixtures
Atomic number, mass number and isotopes
Formula mass and mole calculations
Development of the periodic table

7 Learner Guides
Structure of the atom

The nuclear model

Atoms contain three sub-atomic particles called protons, neutrons and electrons.

The protons and neutrons are found in the nucleus at the centre of the atom. The nucleus is very much smaller than the atom as a whole. The electrons are arranged in shells around the nucleus.
How do I make sure I do well in assessments and exams?

1. Know your assessment & exam dates
2. Use personal learning checklists
3. Give yourself enough preparation time – using your notes & text book. Find revision techniques that work for you!
4. Practise exam technique
Exams – all at the end of year 11

Exam Board: Edexcel

6 exam papers, 100 marks, each 1hr 45mins. Marks from the 2 papers for each subject will be added together to give the GCSE grade for that subject.

- Biology paper 1
- Biology paper 2
- Chemistry paper 1
- Chemistry paper 2
- Physics paper 1
- Physics paper 2
Higher or Foundation level?

**Higher** – grades 9-4

**Foundation** – grades 5-1

*All separate science girls* will sit the higher papers
What will exam style questions be like?

There will be a mixture of multiple-choice, short answer questions, calculations and long answer questions.

Also...

Biology - 10% of questions will be at GCSE maths level
Chemistry – 20% of questions will be at GCSE maths level
Physics – 30% of questions will be at GCSE maths level

• 15% of questions will be about core practicals
Assessments in each subject every half term with exam style questions:

- Biology
- Chemistry
- Physics

First assessments—w/b 10th October
Use a variety of revision techniques

– Make notes of the key points
– Mind maps
– Post-it notes
– Get someone to test you
– Use highlighters
– Use note-cards
How can parents help?

I don’t get it!

Science is hard

The teacher goes too fast
Show support

• Listen to what your daughter is worried about.
• Encourage her to be resilient – with practise she will be able to achieve.
• Make sure your daughter has a quiet place to work.

Give advice & help find solutions

• Encourage your daughter to take responsibility for her learning – what can she do to help herself improve?
• Has your daughter looked up the work in her textbook?
• Has she looked up bbc bitesize?
• Has she asked her friends?
• Has she been to see her teacher?
Also...

- Ensure homework is being completed regularly using the textbook provided.
- Help your daughter with organisation.
- Ensure pupils catch up on any work they miss due to absence from school.
- Ensure pupils are completing proper revision for school assessments.