

# GCSE Science Examination Information

## *How to prepare for your science GCSEs*

### **Introduction**

We hope you find this booklet helpful as we come to the final preparation for the summer GCSE examinations. We want all of our students to leave their compulsory period of schooling with the best possible results. Results that will not only enable them to take the next step in their chosen career pathway but that they will be proud to write whenever and wherever required for the rest of their lives.

If at any point in the revision or GCSE examination period you are concerned or worried then please contact us – we will help whenever possible.

### **Exam information**

All students will sit six examinations in Science (Biology, Chemistry and Physics) with all students on the 'combined science' pathway sitting examinations that are 1hr 15min in length, and students on the 'separate science' pathway sitting examinations that are 1hr 45min in length.

<b>Exam</b>	<b>Date</b>
Biology Paper 1	15 <sup>th</sup> May 2018
Chemistry Paper 1	17 <sup>th</sup> May 2018
Physics Paper 1	23 <sup>rd</sup> May 2018
Biology Paper 2	11 <sup>th</sup> June 2018
Chemistry Paper 2	13 <sup>th</sup> June 2018
Physics Paper 2	15 <sup>th</sup> June 2018

### **Learning at Home**

In order for all students to be successful, they need to ensure that they are working hard at home to revise content and practice questions. This work is in addition to any revision sessions that student attend in school. Any revision sessions attended are meant to compliment a student's revision and not replace it. In order to help with this process we have outlined a number of resources that can, and should be used by individuals to prepare for these examinations below.

#### **1. Learning Checklists:**

Students are provided with learning checklists on all topics needed for the GCSEs. These offer students an opportunity to self-assess their own understanding and will help to guide their revision so that they are targeting the areas of the course where they are least confident.

#### **2. Science Revision Sessions**

Please refer to the Year 11 Subject Revision and Support Session timetable. These were handed out in tutor time.

#### **3. Exam questions:**

All students have access to exam questions which compliment all parts to their checklists. They are advised to work through the questions which complement the topics on the checklist that they are least confident on. They should then ask for feedback from their teachers on how well they completed them and how they could improve their answers further.

#### **4. Recall Tests**

In class, students will be asked to memorise some recall answers to a set of questions. They will then be tested the following lesson by their teacher. It is extremely important that students memorise these answers as these are key facts that they will need to be able to recall quickly to answer exam questions successfully.

## 5. BBC Bitesize Science

<http://www.bbc.co.uk/schools/gcsebitesize/science/>

This website summarises key pieces of information and then has activities and tests to help you improve on and test your knowledge of the topic.

The screenshot shows the BBC Bitesize Science website. The top navigation bar includes 'News', 'Sport', 'Weather', 'iPlayer', 'TV', 'Radio', and 'More...'. The main header features the 'GCSE Bitesize' logo and navigation links for 'BBC Radio 1' and 'BBC 1Xtra'. The breadcrumb trail reads 'Home > Science > AQA > Keeping healthy'. The page title is 'Science Keeping healthy'. There are links for 'Diet and exercise' and 'Defending against infection', each with 'Revise' and 'Activity Test' options. A 'Chat' section is visible on the right, along with a 'Listen' button.

The screenshot shows the BBC Bitesize Science website, specifically the 'Diet and exercise' page. The breadcrumb trail is 'Home > Science > AQA > Keeping healthy > Diet and exercise'. The page title is 'Science Diet and exercise'. It features a 'Test Bite' section with four questions:
 

- What is 'the metabolic rate'?
  - The speed at which our food is digested
  - The speed at which chemical reactions take place in our bodies
  - The speed at which we eat
- After exercise:
  - the metabolic rate stays permanently high
  - the metabolic rate stays permanently low
  - the metabolic rate stays high for a while
- What is a feature of low-density lipoproteins (LDLs)?
  - LDLs are 'good' cholesterol
  - LDLs carry excess cholesterol back to the liver
  - LDLs carry cholesterol from the liver to the cells of the body
- What is it best to have for a healthy heart?
  - A high proportion of HDL compared to LDL
  - A low proportion of HDL compared to LDL
  - A lot of cholesterol in the diet

 The right sidebar contains a 'Chat' section, a 'Listen' section with 'Core Science' and 'Additional Science' audio options, and a 'Play' section with 'R U Revising Science?'.

## 6. Freesciencelessons.com

A website that offers lessons on all topics of the course, allowing students to recap and revise the content.

## 7. Quizlet

Offering ready-made 'flash cards' that cover all topics of the course.

## 8. Getrevising.co.uk

Offering a range of resources for all topics of the course.

## Revision strategies

### Setting the scene:

- A time and place to revise without distraction

- Access to the internet or revision guides
- Sleep
- Food
- Work/Life balance

### Preparing for revision:

- Make sure you have a complete set of notes for the topic.
- Make sure you have worked out which topics you know well and which topics you need to focus revision on. Your teachers will provide you with a personalised checklist for each topic to guide you.
- Work out which revision strategy works best for you.
- Create a revision timetable so that you know what you are revising and when.

### Revision timetable:

- This is to help you plan what you need to revise and when.
- Ensure that you focus on the topics that you know least.
- The most effective revision is in 30 minute chunks with a 10 minute break in between.
- Be as active as possible during your revision (see the strategies later in the booklet).
- Ensure that you test your knowledge by practicing exam questions as you need to know how the examiners will test you and what answers they like to see.
- REMEMBER: This is flexible and acts as guidance. You must also have breaks and do things that you enjoy around revision.

Time	Monday	Tuesday	Wednesday	Thursday	Friday
3:00-4:00	Maths Revision Session	English Revision Session	Science Drop in Session	Science Revision Session	Geography Revision Session
4:30-5:00	Watch TV	Watch TV	See Friends	Watch TV	See Family
5:30-6:00	Dinner	Dinner	Dinner	Dinner	Dinner
6:00-6:30	Revision Science	Revision Maths	Revision English	Revision Science	Revision French
6:30-7:00	Revision Science	Revision Maths	Revision English	Revision Science	Revision French
7:00-7:30	Watch TV	Watch TV	Watch TV	Watch TV	Watch TV
7:30-8:00	Revision Science	Revision Maths	Revision Geography	Revision Science	Revision Drama
8:00-8:30	Revision Science exam questions	Revision Maths	Revision Geography	Revision Science exam questions	Revision Drama

### Learning Styles

Everyone learns in different ways. Not all of these revision strategies will suit you. Trial some of these out and see which one you like best, you don't have to use them all!

#### Visual learners prefer to:

- ❖ Draw pictures and diagrams



### **Auditory learners prefer to:**

- ❖ Say their work aloud
- ❖ Give presentations to an imaginary audience
- ❖ Record notes on a tape recorder
- ❖ Use silly noises to remember things
- ❖ Hear the information in their mind
- ❖ Play instrumental music



### **Kinaesthetic learners prefer to:**

- ❖ Do actions when learning key facts
- ❖ Walk about when learning
- ❖ Find it harder to sit at a desk
- ❖ Add emotions and textures to exaggerate information
- ❖ Try to experience what they are learning

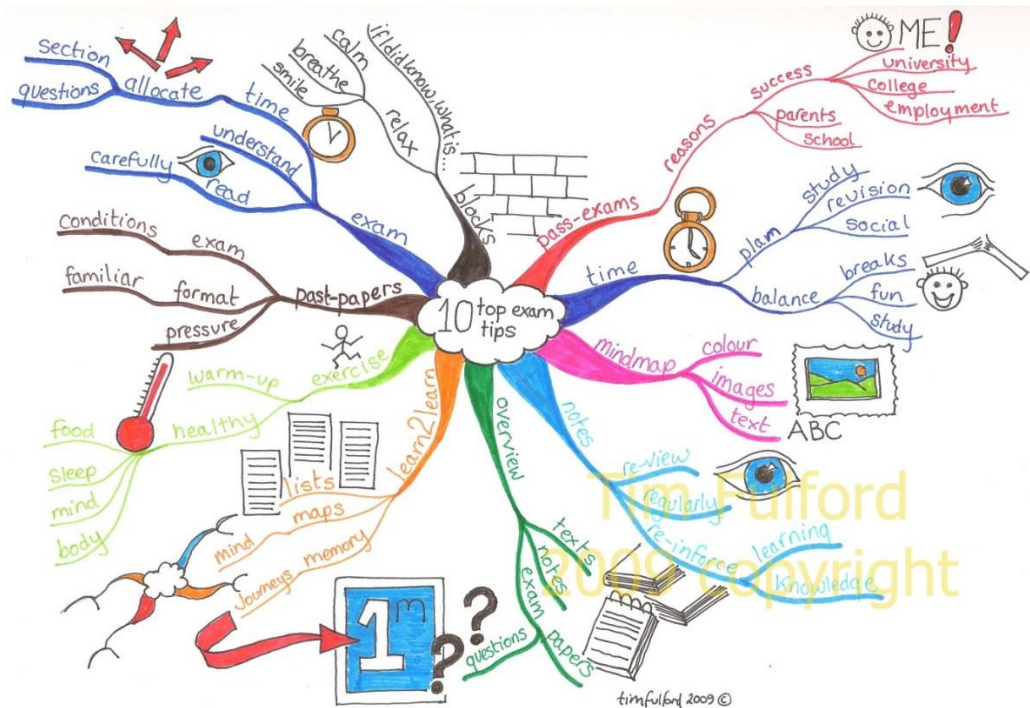
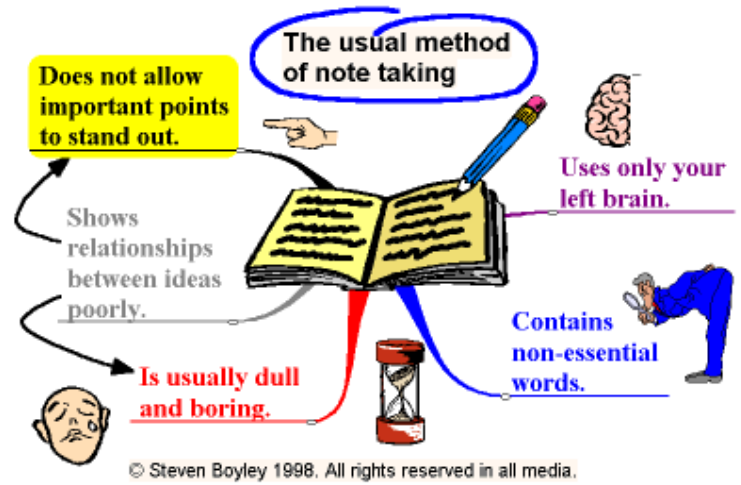
### **Revision strategies:**

#### **Mind Maps:**

Linking your notes together around a central point. Use colours and images. Good for visual learners. You could place these around the house so that you keep seeing them.

How to mind map:

1. Start with the theme in the middle of the page.
2. Each branch must relate to the branch before it.
3. Use only key words and images.
4. Write how the key words link along the linking lines.
5. Use highlighters and coloured markers to colour code branches.
6. Make things stand out on the page so they stand out in your mind.
7. Design images you can relate to which will help you remember key information.
8. Use this mind map to then practice exam questions related to this topic.



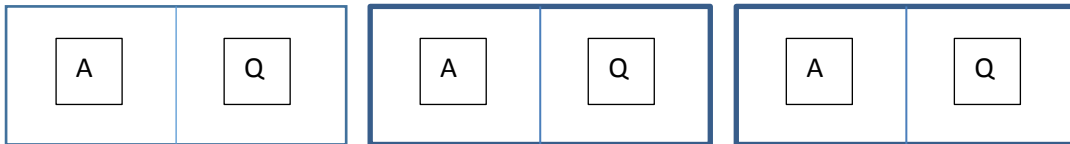
**Quiz Cards**

- Look through your notes on a topic that you need to revise.
- Summarise each section into a question and write this onto one side of a card.

- Write the 'perfect' answer on the other side of the card (already you are revising when preparing these cards as you are thinking about the best way to condense the information that you have learnt).
- Now get someone to test you on these questions.
- You and your friends could make cards for different topics and test each other!
- This strategy is great for auditory learners.
- Now practice an past exam question on this topic.

### Make games

- Look through your notes on a topic that you need to revise.
- Summarise each section into a question and write on one side of the domino.
- On a neighbouring domino write the 'perfect' answer.
- On the same domino write another question.
- On the neighbouring domino write the 'perfect' answer.
- Keep doing this until you have made a loop of questions and answers.
- You and your friends could make cards for different topics and test each other!
- This strategy is great for kinaesthetic learners.
- Then practice answering past exam questions on this topic.



### Using your emotions and memories

This strategy works great for sequences of information that you have to remember in an order.

### Using your everyday experiences

- Think of a route that you walk daily.
- At certain memorable spots along the route think of part of the topic that you need to remember.
- When you re-walk the route in your mind you should be able to remember those parts of the topic.
- Works great for visual, auditory and kinaesthetic learners.

### Making the most of your notes

**Condense.** Fitting notes onto one side of paper makes them easier to stomach, so rewrite and cut down as you go.

**Highlight.** Target key areas using colours and symbols. Visuals help you remember the facts.

Read, cover, write is a great technique for auditory and kinaesthetic learners. Say this out loud.

### **Use technology**

- Use the revision websites that are listed previously in this booklet.
- Record yourself reading your notes and play this as you are falling asleep.

### **Past paper exam questions**

The best way to revise what the examiners want you to write is by practicing exam questions. Although this is a new course, with limited resources because of this, there are still 'specimen papers' available on the AQA website.

- Read the question.
- Highlight the key words on the question.
- Answer the question. There should be roughly the same number of points made as the number of marks that you can achieve. Start with the simplest point and then build on each point with more detail.
- Make sure your answer links back to what the question is asking.
- Use the mark scheme to check your answer. Highlight the parts of your answer that got the mark.
- Improve on your answer if you have missed any marks.
- Ask your teacher if you do not understand the question or the answer!

### **Command words for exam questions**

<b>Calculate</b> Find out using mathematics.	<b>Compare</b> Write the similarities and differences.
<b>State</b> Write briefly the main points.	<b>Explain</b> Describe, giving reasons and causes.
<b>Conclude</b> Decide after reasoning something out.	<b>Evaluate</b> Say the good points and the bad points.
<b>Define</b> Give the meaning. This should be short.	<b>Describe</b> Give a detailed account/description.

### **Contact information**

If you have any queries please contact:

Mrs Cassey or Mr Sharp  
[acassey@kingsdownschool.co.uk](mailto:acassey@kingsdownschool.co.uk)  
[jsharp@kingsdownschool.co.uk](mailto:jsharp@kingsdownschool.co.uk)