

## BIOLOGY GCSE

Exam	Duration	Marks available	% of GCSE	Topics/ content
Biology Paper 1	1 hour 45 minutes	100	50%	Topics 1–4: Cell biology; Organisation; Infection and response; and Bioenergetics.
Biology paper 2	1 hour 45 minutes	100	50%	Topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology.

Before revising, students should complete personal learning checklists for their subjects. These ask students to RAG rate both the topics/ content of their exams and also the skills they are required to use. Doing this will help them to identify priorities and make effective use of their revision time.

### Personal Learning Checklists

Topic (what I need to know)	R	A	G
1. Cell biology			
2. Organisation			
3. Infection and response			
4. Bioenergetics			
5. Homeostasis and response			
6. Inheritance, variation and evolution			
7. Ecology			
8. Key ideas and experimental procedure			

Skill	R	A	G
Be able to extract data from a table or graph to support a conclusion or suggestion.			
Structure longer questions to gain the maximum number of marks.			
Name scientific equipment and be able to describe how to use it safely.			
Use scientific terms to explain your ideas.			
Use concept diagrams to express and idea.			
Find and explain patterns in data and observations.			
Know required practical methods and the questions that might be applied to them.			

# TOP REVISION TIPS FOR BIOLOGY

## On-line resources

**YouTube** is a good place to look for videos of scientific methods and experiments that you might not remember or have missed in class. Make sure you have a thorough understanding of each **required practical** and how it can be performed safely.

1. Use a light microscope to observe, draw and label a selection of plant and animal cells.
2. Investigate the effect of antiseptics or antibiotics on bacterial growth using agar plates and measuring zones of inhibition.
3. Investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue.
4. Use qualitative reagents to test for a range of carbohydrates, lipids and proteins. To include: Benedict's test for sugars; iodine test for starch; and Biuret reagent for protein.
5. Investigate the effect of pH on the rate of reaction of amylase enzyme.
6. Investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed.
7. Plan and carry out an investigation into the effect of a factor on human reaction time.
8. Investigate the effect of light or gravity on the growth of newly germinated seedlings.
9. Measure the population size of a common species in a habitat. Use sampling techniques to investigate the effect of a factor on the distribution of this species.
10. Investigate the effect of temperature on the rate of decay of fresh milk by measuring pH change.

There are also some helpful apps and websites that are free to visit;

- KS4 GCSE bitesize website <http://www.bbc.co.uk/education/subjects/zrkw2hv>
- My GCSEscience website <https://www.youtube.com/user/myGCSEscience>
- General KS4 science revision <http://www.gcsescience.com/>



Test your knowledge of GCSE Biology, Chemistry, Physics with these brilliant Test & Learn apps from CGP! They are perfect for a bit of quick-fire revision whenever you've got a few minutes' spare. Test yourself on an individual science using the single science apps or if you are a higher tier student buy and download the GCSE Core & Add Science Apps for harder questions. What if I can't afford to shell out £1.49 per app, I hear you say. Well, luckily there is a GCSE Science LITE app which gives you a sample of all the questions in the full app.

Price: £1.49 per app (free for the Lite app) App Store, Play Store