

# How to get a grade 5 in AQA GCSE Biology (Higher tier)

A grade 5 on the Higher tier comes from secure core biology in all seven topics and from picking up the accessible marks in every question, not from the hardest final parts. This plan shows what to learn first, how to organise ten weeks of revision and how to avoid the slips that hold students at a 4.

## What a grade 5 asks of you

- Accurate recall of the key facts, processes and definitions in all seven topics, with no topic left out.
- Nearly full marks on the opening questions of each paper and on the first parts of the later questions.
- Reliable standard calculations: magnification (including mm to  $\mu\text{m}$ ), mean, percentage change, rate, and ratios or probabilities from genetic crosses.
- Describing a graph or table with numbers and units, and giving a simple biological reason for a trend.
- Knowing the method, variables and typical results of all 10 required practicals.
- Six-mark answers that reach at least Level 2: several correct, relevant points in a sensible order.
- Higher papers have fewer easy marks than Foundation papers, so every mark dropped through vague wording or careless reading matters.

## Topics to secure first

- Cells: animal, plant and bacterial cell structures and what each part does; microscopy and magnification.
- Transport and cell division: diffusion, osmosis (with the osmosis practical) and active transport; mitosis and the cell cycle; stem cells.
- Organisation: digestive enzymes (carbohydrases such as amylase, proteases, lipases) and bile; the food tests and enzymes practicals; the heart, blood vessels and blood; coronary heart disease.
- Infection and response: examples of viral, bacterial, fungal and protist diseases and how they spread; body defences; vaccination; antibiotics and painkillers; drug testing.
- Bioenergetics: word equations for photosynthesis and respiration; limiting factors; aerobic and anaerobic respiration; the response to exercise.
- Homeostasis: the reflex arc and reaction time practical; blood glucose control and type 1 and type 2 diabetes; hormones in the menstrual cycle; contraception.
- Inheritance: DNA, genes and alleles; dominant and recessive; genetic crosses; inherited disorders; sex determination; variation and natural selection; selective breeding; antibiotic resistance.
- Ecology: food chains and webs; quadrats and transects; the carbon and water cycles; biodiversity and human impacts such as deforestation and global warming.

## Question types to master

- Tick-box, match-up and complete-the-sentence questions: aim to drop none.
- 'Give' and 'Name' one-markers answered with the exact key term.
- 'Describe the trend': the overall pattern plus at least two values with units.
- The magnification calculation both ways (finding magnification and finding real size), with unit conversion.
- Percentage change in mass from the osmosis practical, and the mean of repeats with anomalies left out.
- Two-mark 'Explain' questions: a statement plus a 'because' or 'so' reason.
- Required practical questions on variables, method steps and simple improvements.
- Genetic crosses: Punnett square through to the probability or ratio asked for.

## Ten-week revision plan

- Every week: four or five sessions of 30 to 45 minutes, plus about 10 minutes a day of Daily 5 and flashcards.
- Week 1: Topic 1, Cell biology, with the microscopy, microbiology and osmosis practicals.
- Week 2: Topic 2, Organisation, with the food tests and enzymes practicals.
- Week 3: Topic 3, Infection and response.
- Week 4: Topic 4, Bioenergetics, with the photosynthesis practical. End the week with a timed Paper 1 mock.
- Week 5: Topic 5, Homeostasis and response, with the reaction time and plant responses practicals.
- Week 6: Topic 6, Inheritance, variation and evolution.
- Week 7: Topic 7, Ecology, with the field investigations and decay practicals. End the week with a timed Paper 2 mock.
- Week 8: your five weakest subtopics from the two mocks, plus one session on calculations and one on six-mark answers.
- Week 9: a second timed mock for each paper; redo every question you dropped marks on.
- Week 10 and the gap between the papers: Paper 1 topics and practicals in the days before Paper 1, then Paper 2 topics until Paper 2.

## How to use this website

- Notes: for each subtopic, read the notes and cheatsheet, then do the worksheet and check it against the answers. Use the grade-by-grade skill lists and tick off every grade 4 and 5 skill in the checklist first.
- Custom paper: pick the subtopics you revised that week, start on Easy, move to Medium once you score well, keep the length short, and mark it with the mark scheme.
- Daily 5: do it every day to keep your streak. It picks questions from your weakest topics, so it keeps old gaps closing.
- Flashcards: use them for definitions, equations, pathogens with their diseases, and hormones with their glands. Cards come back just before you would forget them.
- Mock exams: sit them timed in weeks 4, 7 and 9, in one sitting, as if they were the real papers.
- Progress: after each mock, start with the weakest subtopics at the top of the list and redo the questions you dropped marks on.
- Whiteboard: practise magnification calculations and Punnett squares on screen until they are automatic.
- If a topic is still near the top of your weakest list after two rounds of practice, book the free 30-minute trial lesson with Chhetri Academy for 1-to-1 help.

## Timing in the exam

- Work at about a minute a mark and check you are about halfway (around 50 marks) after 50 minutes.
- Attempt every part of every question. At grade 5 many marks come from the first parts of questions that get harder later.
- If a hard part stalls you for two minutes, write your best idea, star it and move on.
- Give each six-mark question 6 to 7 minutes and aim for at least four clear, relevant, linked points.
- Keep the last 5 to 10 minutes for blanks, units and the number of ticks.

## Traps at grade 5

- Writing that respiration 'produces energy' instead of releases it, or that enzymes are 'killed' instead of denatured.
- Describing when the question says explain, or explaining without data when it says use the data.
- Forgetting units, or converting mm to  $\mu\text{m}$  the wrong way (multiply by 1000 to get  $\mu\text{m}$ ).
- Mixing up similar words: mitosis and meiosis, glucagon and glycogen, antigen, antibody and antibiotic.
- Osmosis answers that leave out water or the partially permeable membrane.
- Saying antibiotics kill viruses.
- Ticking two boxes when the question asks for one, or leaving a question blank.

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Free notes, worksheets, practice papers and mock exams at [chhetriacademy.com](https://chhetriacademy.com). Written for this site; not taken from past papers.  
Stuck? 1-to-1 tutoring with a free 30-minute trial lesson.