

# How to Write a Good AP Biology Essay

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## AP Biology

The AP Biology exam concludes with four essay questions that make up 40% of your score. Learning to quickly write intelligent, direct answers to the essays is often the difference between a score of 3 and a score of 5 on the test. You will be writing many graded essays in class. Here are some tips on writing a strong essay:

- **First and foremost, remember the purpose of the essay: to prove to your grader that you have mastered introductory biological science.** Every part of your essay should be devoted to fulfilling this purpose. Graders—usually high school or lower-level college teachers—sit in a room and grade essay after essay after essay. They tire very quickly, and essays that get to the point and stay on the point are easier to score and thus often get a higher grade.
- Always write in complete sentences with your best spelling and grammar. According to the rules, notes and outlines cannot be graded.
- Avoid flowery, complex, *literary* essays. Do not include long introductory paragraphs that do not answer parts of the question. Do not include complex conclusions—the grader will not read it if you have correctly answered the question and earned all your points in the body anyway. Do not be cute: if the essay asks for a description of the digestive pathways of a mammal, do not pretend to be a piece of hamburger named Joe chronicling its passage through the digestive tract. People will think you are psychotic.
- Organize your answer the same way the question is organized, so that your grader does not have to hunt for points as they score it. If the essay has three parts labeled A, B and C, label the first paragraph “A” and answer all of the parts asked in A. Label the second paragraph “B” and answer all of the parts in B, *etc.* Answer the parts of the question in the order it is asked.
- AP essays are scored on a point system, with the graders looking for certain specific statements or answers to award points. For example, if a question asks you to describe *mutualism*, the grader is going to look for a definition of mutualism to award a point, and then an elaboration of mutualism, like an example, to give an additional point. Always support your definitions and conclusions with at least one example to ensure you get all possible points.
- Always answer the question asked, no more or no less. If they want three examples, give three examples. If you give four, they will grade the first three and ignore the last. They will not select the three correct answers from your proffered list, and disregard the wrong one. Likewise, they will not give extra points if you give more than the question asks.

- As a corollary to the point above, do not “data dump”. Do not spew forth with everything you possibly know about the topic. It shows the grader that you are not intelligent enough to assess the question accurately and select the correct answer from your store of knowledge.
- An exception to data dumping: if you do not know the answer to the question, guess! Never leave a question blank. If you do not remember the precise word that answers the question, at the very least you should be able to offer a description of the phenomena and give an example.

### Special Cases:

- If a question involves a laboratory experiment or analysis of data, you may be asked to draw a graph. You must title your graph and label the axes (*including units!*). These minor factors are always worth points. This type of question is often the easiest to get a high score on, if you remember the small things.
- If you are answering a question that requires you to design an experiment remember these important points (they are *always* worth points):
  - State a clear, testable hypothesis. (The experiment must be able to be performed within the conditions described in the problem).
  - When describing your experiment, always state explicitly what the variable is, how you are controlling it, and how you are standardizing any other factors.
  - Always have a large sample size. Mention that you will run many replicates, never just one.
  - Stress quantitative results that you can evaluate through statistical analysis.
  - Clearly describe what you are going to measure to evaluate your experiment, how you are going to measure it, and how frequently (if appropriate).
  - Mention the need for repeating the experiment to confirm your conclusions.
- If you are answering questions that involve math, like the Hardy-Weinberg equation or a  $\chi^2$  analysis, show your work and clearly show the solution to the question. You could earn a few points just for knowing the correct equation and for correctly substituting some of the variables with the correct terms.
- For questions that involve a genetic cross, clearly state the genotype and phenotypes of the parents, and the genotypes, phenotypes, and ratios of all possible offspring. Always show the Punnett Square.