# AP Physics 1

**Exam Technique · 应试技巧**

*AP free-response is scored against a rubric: a reader looks for specific, named points and awards each one that is present. This guide is about writing so those points are visible – what each task verb obliges you to do, how rubric points are earned and lost, and the habits that cost marks when English is your second language. AP* 简答题按评分标准逐点给分, 本指南教你把得分点清楚地写出来。

## Task verbs – what the rubric expects for each

College Board publishes a task-verb list, and rubric points are written to it. Answering a DESCRIBE prompt with an EXPLAIN answer wastes time; answering an EXPLAIN prompt with a DESCRIBE answer loses the point.

**Identify** 指出 — name it. One word or one phrase. No sentence needed, no justification.

**Describe** 描述 — give the relevant characteristics of something. A feature, not a cause. Usually one sentence.

**Explain** 解释 — give the reason or mechanism, showing HOW or WHY. The rubric point sits on the causal link, so the sentence must contain one: because, which causes, leading to.

**Calculate** 计算 — produce a number from given quantities. Show the substitution – most rubrics award the setup separately from the answer.

**Justify** 论证 — give evidence and reasoning that supports a claim or conclusion. Naming the evidence is not enough; say why it supports the claim.

**Support a claim** 支持论点 — state the claim, then the evidence, then the reasoning that connects them. All three are usually separate points.

**Compare** 比较 — state a similarity or difference explicitly, in one sentence covering both cases.

**Predict** 预测 — state what will happen, with the reasoning that gets you there – a bare prediction rarely earns the point.

**Derive** 推导 — start from a principle or a given equation and work symbolically to the result. Every algebraic step is potentially credited.

**Draw / Sketch** 作图 — a labelled diagram or graph. Axes labelled, shape correct, asymptotes and intercepts where they belong.

**Evaluate** 评估 — judge, using criteria you name. A judgement with no criterion is an opinion, and opinions are not scored.

## How rubric points are earned and lost

Answer the parts in order and LABEL them (a), (b), (c). Readers score part by part; an unlabelled paragraph containing all three answers risks losing two of them.

One point per idea. Writing the same idea three ways earns one point and costs three minutes.

A contradiction cancels. If you write the right answer and then a wrong statement about the same thing, the point is usually lost – so do not hedge by listing every possibility.

Do not restate the prompt. The restatement occupies the line where the scored sentence should be.

Bullet points are acceptable in most AP subjects, and they make each point visible to the reader. Use them unless the question asks for an essay.

Cross out anything you do not want read, with a single line. Uncrossed wrong work sitting beside right work can cost the point.

If the question says 'in one sentence', write one sentence. Extra sentences are not read in some rubrics.

## Using the stimulus

When a question provides data, a map, a graph or a source, the rubric almost always requires you to USE it. An answer written from memory alone caps low.

Quote the specific value, year, region or label you are using. 'The data show an increase' is not scored; 'the rate rises from 2.1 to 3.4 between 1990 and 2000' is.

For a document-based question, describe what the document says accurately BEFORE using it – a misread document earns nothing and can undercut your thesis.

Sourcing earns its own point in the history subjects: name the author's point of view, purpose, historical situation or audience, and say why it matters to the argument.

## Free-response essays (history, English, and the argument tasks)

Write a defensible thesis in one or two sentences, in the introduction or the conclusion. It must make a claim that someone could argue with.

Contextualization is a separate point: a few sentences placing the topic in the broader developments of its era, connected to your argument rather than floating.

Evidence points require SPECIFIC evidence – a named event, person, document, work or datum. 'Many people believed …' is not evidence.

Complexity or sophistication is earned by qualifying your own argument: a counter-example, a group whose experience differs, a limit on the claim – explained, not mentioned.

Stay inside the prompt's dates and scope. Excellent evidence from outside the window earns nothing.

## Quantitative subjects

Write the symbolic equation before substituting numbers. Rubrics award relationship and substitution separately from the final value.

Carry units through the calculation, and state the unit of the answer. A unitless number often forfeits the answer point.

Round only at the end, and keep a sensible number of significant figures.

For 'justify your answer' after a calculation, add one sentence of physical or mathematical reasoning – the number alone is not the justification.

On a graph question, label axes with quantity and unit, and draw a best-fit line rather than joining the points.

If you cannot finish, write what you would do next. Method statements can earn rubric points even without the arithmetic.

## Writing under time pressure in a second language

Use the technical term, not a paraphrase: 'natural selection', not 'the strong ones live'. The term is what the reader is looking for.

Short, direct sentences score better than long ones. Put the answer first and the reasoning second.

Avoid 'it' and 'this' when two things are in play – repeat the noun so the reader knows which one you mean.

Imperfect grammar does not cost rubric points when the meaning is clear. An unclear sentence does. Write plainly rather than ambitiously.

Budget the time before you write: divide the minutes by the number of parts, and move on when a part's time is spent. An unattempted part scores zero; a rushed one usually scores something.