Suggestions for Tutoring ACT Science:

1. Discuss the format of the test
2. Discuss the science section components and topics/graphs/pictures covered
3. Assess using a practice test section
4. Identify weaknesses
5. Teach content in the areas of weakness
6. Work through sample test problems together
7. Discuss strategies
8. Assign homework to be completed if student has time. Homework example: Student should complete one science section. Then student should circle wrong answers to review together during the next session.

The ACT Science test consists of 40 questions that must be answered within the 35-minute time limit. The test consists of several science passages, each of which focuses on one of the following subject areas: biology, chemistry, earth/space sciences, and physics. Each passage is presented in one of three different formats: Data Representation, Research Summaries, and Conflicting Viewpoints.

Though the passages and questions focus on scientific topics, they do not require students to recall specific scientific facts. Instead, students are asked to understand, analyze, and evaluate information using the various paragraphs, graphs, tables, charts, and diagrams that make up each passage. Below you can find more detailed information about each passage format, as well as a sample ACT Science passage and question.

ACT Science Test Passage Formats

Passage Format	Additional Information	% of Questions (# of Questions)
Data Representation	understand, evaluate, and interpret information presented in graphs, tables, or charts	30-40% (approx. 12-16 questions)

Research Summaries	understand, evaluate, and analyze one or more experiments	45-55% (approx. 18-22 questions)
Conflicting Viewpoints	understand and evaluate conflicting viewpoints, theories, or hypotheses on a specific topic	15-20% (approx. 6-8 questions)

Sample ACT Science Test Passage & Question

To give you a better feel for the ACT Science Test, let's take a look at a sample ACT Science passage and question.

Sample Passage

The relationship between speed, mass, weight, and friction was studied using a toy car that carried additional masses. The car was placed on a 1m inclined plane and released. The time it took to go down the incline and the time it took to go one meter beyond the incline were recorded.

Experiment 1

Additional masses were added to the car as it was released down the incline plane. The car has a mass of 50 g. The plane was angled at a 25 degree angle.

Mass on Car	Time Down Plane	Time for Additional 1 Meter
10g	5.3 seconds	4.8 seconds
20g	5.2 seconds	5.7 seconds
30g	5.3 seconds	6.6 seconds

Experiment 2

The incline of the plane was changed to determine its effect on the time it took the car to travel down the plane. There were no additional masses placed on the car.

Mass on Car	Time Down Plane	Time for Additional 1 Meter
15°	5.4 seconds	4.9 seconds
25°	5.1 seconds	4.7 seconds
35°	4.7 seconds	4.4 seconds

How is the design of Experiment 1 different from that of Experiment 2?

A.	Experiment 2 varied the mass on the car while Experiment 1 varied the angle of the plane.
B.	Experiment 1 varied the mass on the car while Experiment 2 varied the angle of the plane.
C.	Experiment 1 and Experiment 2 tested the same variable in different ways.
D.	Experiment 1 and Experiment 2 have no differences.

Answer: In both charts, the independent variable is listed in the first column, and the dependent variables are listed in the second and third columns. In Experiment 1, the independent variable is the mass of the car. In Experiment 2, the independent variable is the angle of the plane. Choice B is the correct answer.

Actual science sections of act tests

https://cdn2.hubspot.net/hub/360031/file-2226679255-pdf/Documents/ACT_Test_2014-15.pdf?t=1524236344173
Pages 40-51

https://cdn2.hubspot.net/hub/360031/file-2227156987-pdf/Documents/ACT_Test_2011-12.pdf?t=1524236344173
Pages 43-55

https://cdn2.hubspot.net/hub/360031/file-2227156982-pdf/Documents/ACT_Test_2008-09.pdf?t=1524236344173
Pages 42-55

https://cdn2.hubspot.net/hub/360031/file-2227156992-pdf/Documents/ACT_Test_2005-06.pdf?t=1524236344173
Pages 42-55

ACT science content:

https://blog.prepscholar.com/whats-actually-tested-on-act-science-skills-and-topics

https://blog.prepscholar.com/the-3-types-of-act-science-passages

https://blog.prepscholar.com/the-only-actual-science-you-have-to-know-for-act-science

Science vocab

https://www.google.com/amp/s/www.albert.io/blog/101-act-science-vocabulary-words-you-should-know/amp/

Strategies

-Use approach 1

https://blog.prepscholar.com/the-best-strategies-for-reading-act-science-passages

-**More tips**

https://blog.prepscholar.com/how-to-get-36-on-act-science-13-strategies-from-a-perfect-scorer.

https://blog.prepscholar.com/the-11-act-science-strategies-you-must-be-using