

ACT INSTRUCTIONAL MASTERY

SCIENCE AGENDA



The ACT Instructional Mastery Science course provides candidates with the information necessary to facilitate effective ACT Science test preparation, identify and recommend test-taking strategies, and understand test structure and content. This course is highly interactive and practical and provides an opportunity to share ideas and teaching techniques with colleagues.

Includes:

- Teaching students how to:
 - Interpret
 - Analyze
 - Reason
 - Solve Problems
- Interpretation of Data
- Scientific Investigation
- Evaluation of Models (Inferences and Experimental Results)

Why Take It?

- Learn how to tackle the hardest aspects for students:
 - Reading speed
 - Time limits
- Help students learn key skills:
 - Draw a conclusion based on data or identify data that support a conclusion
 - Compare competing interpretations of a data set and determine which is best supported by evidence and reason
 - Perform interpolations and extrapolations using data from a table or graph
 - Identify whether or not a cause-and-effect relationship exists between two variables
 - Interpret data presented in graphs and tables (including identifying trends, independent and dependent variables, and units and scales)
 - Recognize the origin of data presented in a graph or table
- Proven strategies to maximize scoring at all levels

ACT Science Professional Learning Example Schedule | 2-Day Course

Day 1

Time	Activity
8:00 AM–9:00 AM	Introduction, About the Science section
9:00AM–9:30 AM	ACT Science Test Data Analysis
9:30 AM–10:45 AM	Science Reporting Categories and Item Analysis
10:45 AM–11:30 AM	Passage Type: Data Presentation
11:30AM–12:00PM	Lunch Break
12:00PM–1:00PM	Passage Type: Research Summary
1:00PM–1:45PM	ACT Science Section Practice Test
1:45PM–2:30PM	Passage Type Conflicting Viewpoints

Day 2

Time	Activity
8:00 AM–10:00 AM	Graphs, Tables, and Figures
10:00 AM–11:00 AM	Scientific Method
11:00–11:30AM	ACT Science Required Background Knowledge
11:30AM–12:00PM	Lunch Break
12:00PM–1:00PM	Test-Taking Strategies and Time Management
1:00PM–1:45PM	Student Support and Preparation
1:45PM–2:00PM	Reflection and Review
2:00PM–2:30PM	Science Knowledge Check

Topics Covered

Science Section Overview

- Reporting Categories
- Types of Passage
- Science College and Career Readiness Standards
- Reporting Categories
- Item Analysis

Student Guidance

- Testing Anxiety, Motivation, and Your Role as an educator
- Evaluation of Students' Strengths and Weaknesses in Science
- Creating a Tailored Learning Program

Passage Formats and Strategies

- Data Presentation
- Research Summaries
- Conflicting Viewpoints

Generalities of Science

- Scientific Method
- Hypotheses
- Control Groups
- Measurement

Background Knowledge Overview

- Biology
- Chemistry
- Physics
- Earth and Space Science

Test-Taking Strategies

- Time Management
- Working with Graphs and Tables
- Additional Tips for Taking the Science test

General Preparation

- Curriculum Review Worksheets
- Data Literacy
- Vocabulary
- English Language Learners
- Ideas for Progress

