ACT SCIENCE TEST

TP

BASICS:

40 Questions in 35 minutes
Average time per passage:
If section has 6 Passages – 5:50
If section has 7 Passages – 5:00

Passage types:
Data Representation – Questions only require data analysis.
Research Summaries – Questions require data analysis or evaluating the setup of the experiment itself.
Conflicting Viewpoints – Questions require you to compare ideas and theories of various scientists or students.

KEY RESOURCES:

ACT Science Curriculum
Guide to Reading Graphs

GENERAL STRATEGY (DATA REPRESENTATION AND RESEARCH SUMMARIES):

1. Quickly (less than 30 seconds) review each table and/or figure in the passage to:
    a. Locate keywords – usually found on axes, keys, units and column headers.
        i. If you don't know the meaning of a keyword, quickly find its definition in the text (usually italicized).
    b. Determine general trends of data – how does the y-axis change as the x-axis increases? How do columns in tables compare to each other?
2. Read each question carefully to determine, in your own words, what it's asking you to find.
    a. As you read a question, use the keywords mentioned in the question or answer choices to locate specific data in the appropriate table or figure.
3. If you know where to find the answer to a data interpretation question, then focus on finding the correct answer. If you are not sure, eliminate wrong answer choices based on the information you can locate and the relationships you can find in the data.
4. If you can't eliminate enough answer choices, circle the question in your booklet, and use your instincts and scientific knowledge to select an answer and move on.

GENERAL STRATEGY (CONFLICTING VIEWPOINTS):

1. Scan the introduction to define any key terms. Circle any proper nouns and/or numbers.
2. Read each viewpoint to determine the main idea(s). Circle any proper nouns and/or numbers.
    a. Once you read a viewpoint, try to keep its main idea in your head to compare to each successive viewpoint.
3. Read each question carefully to determine, in your own words, what it's asking you to find.
4. Use your knowledge of the passage and general scientific knowledge to eliminate wrong answer choices.
    a. Use proper nouns and numbers to locate specific information whenever possible.
    b. Do NOT go back into the passage if you don't know what you are looking for.
5. If you can't eliminate enough answer choices, circle the question in your booklet, and use your instincts and scientific knowledge to select an answer and move on.

EXTRA TIPS:

1. Don't read the text – it may be difficult to resist, but reading the text in Data Representation and Research Summaries passages is a waste of time. You should only look back in the text to define a key term on a table or graph, or to scan for an answer for questions about an experiment's procedure.
2. Embrace your uneasiness – when you don't read the text in passages, you may feel a bit insecure about your level of understanding. Don't! Trust your interpretation of the data, common sense, and outside scientific knowledge when answering even the toughest of questions.
3. Weed through the wordiness – the ACT will constantly ask rather simple questions in extremely complex and wordy language, or insert new information in a question to distract you from what they are really asking. Your ability to simplify questions to simple relationships is critical to your score.
4. Use both hands – use the index finger of your non-writing hand to zero-in on the appropriate data as you read questions in Data Representation and Research Summaries passages.
5. Use the answer choices – keywords in the answer choices are just as helpful as keywords in the question. If you don't see a keyword in the question, you are likely to find one in the answer choices. Units are especially common in answer choices, and can be extremely helpful!
6. Focus on reasoning – Many questions ask you to choose between two options (such as Yes/No) and give the correct reasoning behind your choice. Evaluate the reasoning first to eliminate wrong answers, as the reasoning is almost always based on the data.
7. Remember what you've learned in science class – the ACT will not try to trick you by including false scientific principles in passages. Therefore, you can use your previous scientific knowledge to help you in a pinch. Some of the most important concepts to know are photosynthesis, cellular respiration, parts of an atom, pH, and kinetic-molecular theory.
8. Look for shared keywords –a keyword present in more than one table or figure is extremely important, as it allows you to find even more relationships in the data. Many of the more difficult questions on the test are centered around shared keywords. correctly is hugely important. Remember how certain key words translate into mathematical terms.