



Learning Project **1**


Understanding Graphs

This Learning Project addresses one of the areas that both the science and social studies GED tests emphasize: graphs. In the GED 2002, more than half of the questions in these content areas feature visuals. The reason for this can be seen in the media that present information to us every day: television, newspapers, magazines, and online sources. More and more, people are presented with a visual representation of the information given in an accompanying article.

In order to capture the information displayed in these condensations of lengthy or complex passages, test takers will need to know the components of graphs. The graphs have two axes, one horizontal and one vertical. Each is labeled: information across the bottom and information going from bottom to top. Bar graphs show amounts at given time intervals (days, week, months, centuries) and line graphs use the indicator lines, most commonly from left to right, to show variation over time.

Students will have seen graphs in their math study, but there is a key difference between math and science and social studies. In math, the students will work with the differing amounts in some way. In the science or social studies graphs, students will be expected to understand or analyze the information in the visuals.

In Inquiry 1-1, learners are confronted with a bar graph. When they are given visuals, learners are asked to read the question first and then look at the graph. When locating information or understanding a visual representation of a complex subject, the viewer needs the context in order to

make sense of the representation. That comes from the caption or title of the entire visual, the labeling of the axes, and, in the case of the test taker, the question being asked about the visual. The question is the reason the reader looks at the graph, and, therefore, it provides the need to understand the labels. Test-taker tips [] appear in this Inquiry, as they will throughout the Learning Projects.

Inquiry 1-2 is a science-based bar graph, which is approached in the same way as the social studies question in 1-1. The importance of the axes' labels is stressed. Here, too, test-taker tips refine and stress the information presented about dealing with the answer choices.

Inquiry 1-3 has two line graphs. Both of these items are science questions and show variations. In addition, both show that a careful study of the graph is all that is needed for a correct answer to the question. In the extension item in Inquiry 1-3, the information is apparently very complicated. However, the test question asks only for similar points, which, even without understanding the topic, can be discerned.

Inquiry 1-4 is more involved. This visual has several questions related to it and a reading passage that complements but does not explain the time line. As is frequently the case in the new GED, the test taker will have to draw conclusions from the material presented. Because of the complexity of this particular passage, we suggest instructors use the question-asking reading strategy presented in Learning Project 7 of the Reading volume.