Learning Project 8 Using Your Skills to Answer Questions

Inquiry Activity 8-1: Finding the Answers

The items in this Inquiry Activity are short, two or three-sentence passages followed by questions that require analysis beyond the information given. As with science item 22 (IA 2-1), your learners may need to have information from another source to answer the questions; they may have it from their life experiences, or they may be able to problem solve. As with the items in LP 7, we do not separate the items from the answer choices.

(Note: Italicized portions should be directed to the students.)

1. Identifying the Problem (Items 13 & 19 Science)

Look at the test items.

What must you do in order to answer the question correctly?

Where else have you seen questions like this?

If you have not already done so, have your learners take a look at Reading IA 1-1, "Identifying Types of Questions."

What will you have to do to be successful in this Activity?

Jot down your thoughts, or share them with your partner.

13. As part of a laboratory experiment, five students measured the weight of the same leaf four times. They recorded 20 slightly different weights. All of the work was done carefully and correctly. Their goal was to be as accurate as possible and reduce error in the experiment to a minimum.

    Which of the following is the BEST method to report the weight of the leaf?

    (1) Ask the teacher to weigh the leaf.
    (2) Report the first measurement.
    (3) Average all the weights that were recorded.
    (4) Average the highest and lowest weights recorded.
    (5) Discard the lowest five weights.

19. When sunlight is absorbed by an object, the energy heats the object. But if light is reflected by or passes through the object, the object is heated to a lesser degree.

    An automobile with black seatcovers is left outside on a sunny day with its windows rolled up. Which of the following will heat up the MOST while causing the inside of the automobile to get warm?

    (1) window glass in the side windows
    (2) the white steering wheel cover
    (3) window glass in the front windshield
    (4) the black seatcovers
    (5) the air inside the automobile

2. Becoming Familiar with the Problem

Scan the items, and ask yourself questions like the following as your first step to identifying the question.

Is there anything in the items you do not understand?

Why would you think the words are capitalized in the questions?

The capitalized words will guide the test takers to the correct answer. In the case of number 13, there are a number of ways to accomplish the task. In item 19, everything in the car will be warm, as most of us have experienced, but the hottest things will be the black seatcovers.

What technical terms or ideas might you need to have clarified or defined?

3. Planning, Assigning, and Performing Tasks

***Planning**: You may decide to work by yourself, in a pair, or a small group to do this Activity.*

***Assigning**: Decide with your partner or in your group how you will carry out the task of answering the questions.*

***Doing the Work:** As you read the items, do the following:*

Scan the items; find and mark any words in the paragraphs or the answer choices you might not know. See if the passages give you enough information to clarify the meaning of the words. If not, use other resources to define the terms.

Unusual for science items, the vocabulary is not likely to be an issue in these two questions. In both cases, the questions can be answered by common sense or life experience.

Determine which answer choices are correct.

For item 13, the best method would be choice (3), to average the weights. Reporting on one measurement or throwing out high weights or low weights will skew the results. Asking the teacher is not doing the assignment.

Good problem solving skills will lead the learners to the correct answer. Test takers need not pore over the reading passage. Its information is vague; we do not know the reason, nor are we asked to discover, why there is such variance.

For question 19, most of your learners will have had the experience of sitting on hot seatcovers, choice (4). Everything will be hot, but they will be the hottest. Again, they can allow their own knowledge to lead them to the answer without having to search for textual clues. This pairs well with one of the earlier IAs that deals with absorption of colors and why we see the colors we do. Black is the absorption of all wavelengths of light, hence, the most energy (heat).

4. Sharing with Others

Telling people what you know helps you understand the material better. Take this opportunity not only to share the knowledge, but also to learn it more completely.

***Small groups:** Compare the answers you found with others in the group. Discuss the methods you used to find the answers, the support for your answers in the passage, and the reasons each learner thinks his/her answers and support are correct.*

Agree on the correct answers and the strategy you would use for answering questions that ask you to draw conclusions from what you have read.

***Whole class:** Share with the whole class the steps you used to answer the questions. Take notes on any different ways of answering the questions other groups gave.*

5. Reflecting, Extending, Evaluating

Reflecting: Think about what you have learned.

Here are some questions to start your thinking about the experiences you just had. Thinking about what you have learned and experienced is part of the learning process. When the focus is only on the answer, you don't get much time to think about what was learned.

1. *What have you learned about the capitalized words in occasional questions? How will that help you as a test taker?*
2. *How does your life experience assist you in answering questions like these?*
3. *What problem-solving skills did you use to answer these questions?*

Extending: Extend what you learned to new situations.

In extending, you are being asked to transfer the information presented in this Inquiry Activity to other information or situations.

1. *In your groups, come up with examples from the PA test where you used your own experiences to answer multiple-choice questions.*
2. *Come up with other multiple-choice questions for these two items that also derive from life experiences and not from a reading passage.*
3. *If you needed a new roof, what information from item 19 might you make use of?*
   Does where you live make a difference in choosing roof colors? Explain.
4. *In your group, who among you have had experiences weighing objects? At work? In the home? What do you know about scales that will help you understand the problem set out in item 13?*

Evaluating: Assess what you learned and how you learned it.

In this last step, you get a chance to review the content of what you learned and the methods used to learn. These questions have no right or wrong answers. This is your chance to look more closely at your learning style and the opportunity to state how you benefited or did not benefit from the content and/or the methods presented in this IA.

1. *What parts of the activity worked best for you? Explain.*
2. *What parts did not work well for you? Explain.*
3. *What ideas in this Inquiry Activity will you use when taking the GED test? Why?*
4. *How does following this 5-step format make you feel?*