Learning Project 3 Understanding Maps and Pictures

Inquiry Activity 3-3: Analyzing Information from a Map

In the test item used in this activity, the vocabulary in both the question stem and the answer choices is very technical. In addition, the item assumes that the concepts are familiar to your learners, which may very well not be the case. This is a good opportunity for some contextual vocabulary exercises. A guide to understanding science words is included in Appendix E.

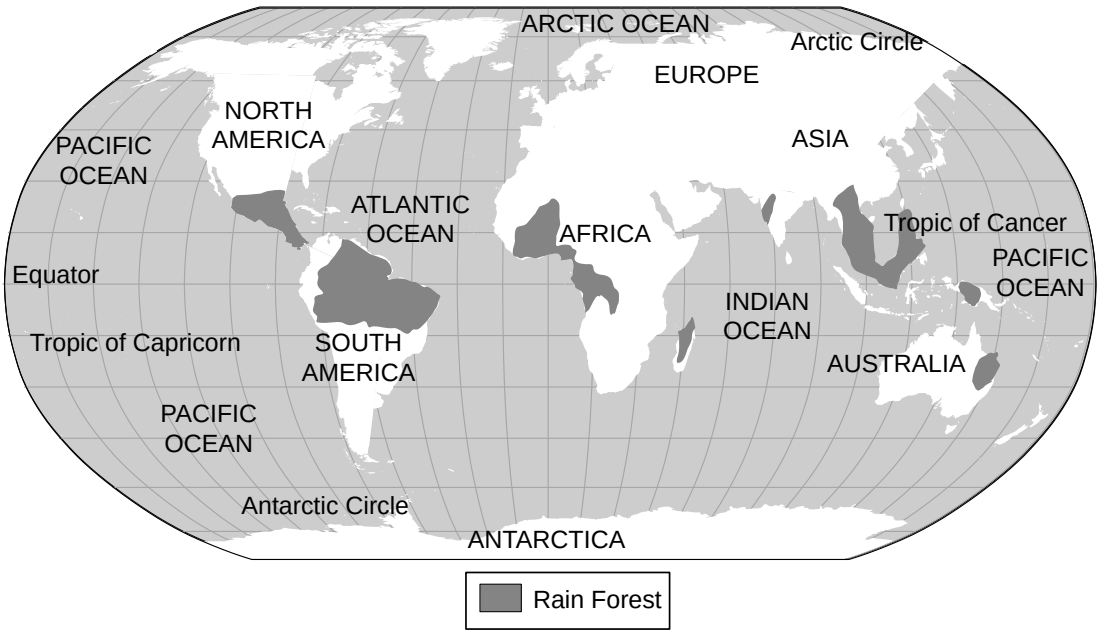
(Note: Italicized portions should be directed to the students.)

1. Identifying the Problem (Item 1 & 2 Social Studies PA)

Look at the map below.

Questions 1 and 2 refer to the following world map.

World's Rain Forests in 1999



1. What will most likely happen if the ecology in the ecosystem featured in the map continues to be destroyed?

   (1) The biodiversity of the areas will be lost.
   (2) The price of beef products will fall.
   (3) New plants will be discovered as the land is logged.
   (4) More people will be able to harvest the vegetation there.
   (5) Ecotourism will increase in these areas.

2. What factors of physical or cultural geography directly determine the location of the ecosystems featured in the map?

   (1) mountainous terrain and moderate precipitation
   (2) growing population and industry in urban centers
   (3) year-round rainfall and warm temperatures
   (4) human agricultural settlement and trade patterns
   (5) middle latitudes and cold ocean currents

Where have you seen a map like this before?

What words or symbols might be important to understand in order to answer the questions, and what are they telling you?

Is there anything on the map you do not understand?

You may find that your learners are unfamiliar with rain forests. A burst lecture here could focus on terms such as biodiversity, biomes, and ecotourism to establish some familiarity and develop a vocabulary lesson. Most will be interested to know the significant number of medications, such as quinine, which is used in 70% of cancer treatments, that are derived from this relatively small land mass.

2. Becoming Familiar with the Problem

Look at the map and ask yourself questions like the following. You should pay attention to which ones are helpful to you, so you can use them again.

Re-read each question. What are you being asked to find out?

From reading the title, what do you know already about this particular map?

What information on the map do you know from previous experience or reading?

Do maps like this attract your attention?

3. Planning, Assigning, and Performing Tasks

***Planning**: You may decide to work alone or in a group to do this Activity.*

***Assigning:** Decide who will read the information or who will lead the discussion of what is on the map.*

***Doing the Work:** As you read the map, consider these strategies:*

> ***Clarify:** Find and mark any words you might not know. See if the map gives enough information to clarify the meaning of the words. If not, find the meaning by asking someone or looking it up.*

The vocabulary in both questions is quite technical and difficult. This is a good Activity to develop contextual vocabulary strategies such as the following. You may wish to provide some of the concepts and categories if your learners are having trouble.

> *For words that seem particularly technical, you might try to develop a graphic organizer to make a semantic map. Put the major concept, such as* ecology *or* climate *in a circle in the middle of a piece of paper. Then, brainstorm a list of terms that relate in some way to this concept. From this list, organize the terms into categories or properties, and put them on the page in the form of a map or a web. This chart will provide an outline of the concept being covered. See Appendix C for a model.*
>
> ***Analyze:** Remind yourself what the question is asking you to do.*

Read each answer, and eliminate answer choices by deciding whether the information in the answer is:

- *Not on the map*
- *The opposite of what is on the map*
- *Not accurate*

You may wish to use a graphic organizer presented in Learning Project 2-3 to categorize the information in the map.

What information does the map provide that can answer the question for each problem?

Find your answers to the questions.

The correct answer to question 1 is (1) The biodiversity of the areas will be lost.

The terminology in the question gives an indication of the answer: destruction of an ecosystem will cause biodiversity to suffer.

The correct answer to question 2 is (3) year-round rainfall and warm temperatures. For this question, someone who remembers that the equator is the warmest part of the planet and combines that understanding with the title of the map will be able to answer the question, since all the rainforests noted on this map are within the tropical and equatorial regions.

Be able to defend your answers and the ways you found them.

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.

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 methods did you use to read the map and answer the questions?*
2. *How are maps useful for conveying information?*
3. *How does the title of the problem assist you in understanding the map and answering the 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. *What are some other purposes for world maps besides indicating climate?*
2. *Use the information on the map to develop another multiple-choice question that requires someone to reach a conclusion. Pass your questions to other group members to answer.*
3. *Find other maps in your classroom reference books. Share with others in your group the purpose for the map you have chosen, and explain how the map tells its story. Have a vocabulary term you can teach to the class.*

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?*