FOCUS: Identifying correct paraphrases of information from a longer passage.

Continue

DIRECTIONS: Read the passage and then answer the question that follows.

Continue

Classifying Climates

Reading > Lesson 5: Sentence Restatement Questions > Exercise 5.2

DIRECTIONS: Read the passage and then answer the question that follows.

Continue

Knowledge that climate varies from region to region dates to ancient times. The Ancient Greeks (such as Aristotle, ca. 350 B.C.) classified the known world into torrid, temperate, and frigid zones based on average temperatures. It was also recognized that these zones varied systematically with **latitude**, and that the **flora** and **fauna** reflected these changes as well. With the further exploration of the world by Europeans, naturalists noticed that the distribution of climates could be explained using factors such as sun angles, prevailing winds, elevation, and proximity to large water bodies.

The two weather variables used most often as indicators of climate are temperature and precipitation. To classify climates accurately, climatologists need many years of records of these two atmospheric elements. In most cases, a minimum of thirty years is required to describe the climate of an area. The invention of an instrument to reliably measure temperature--the thermometer--dates only to Galileo in the early seventeenth century. European settlement of and sporadic collection of temperature and precipitation data from distant colonies began in the 1700s but was not routine until the mid-nineteenth century. This was soon followed in the early twentieth century by some of the first attempts to classify global climates using actual temperature and precipitation data.

Because temperature and precipitation vary greatly over Earth, climatologists have worked to reduce the infinite number of worldwide variations in atmospheric elements to a comprehensible number of groups or varieties by combining elements with similar statistics. That is, they can classify climates strictly on the basis of atmospheric elements, ignoring the causes of those variations (such as the frequency of air mass movements). This type of classification, based on statistical parameters or physical characteristics, is called an empirical classification. A classification based on the causes, or genesis, of climatic variation, is known as a genetic classification.

Ordering the vast wealth of available climatic data into descriptions of major climatic groups, on either an empirical or a genetic basis, enables geographers to concentrate on the larger-scale causes of climatic differentiation. In addition, they can examine exceptions to the general relationships, the causes of which are often one or more of the other atmospheric controls. Finally, differentiating climates helps to explain the distribution of other climate-related phenomena of importance to humans.

Review | Continue

1 Which of the sentences below best expresses the essential information in the **highlighted** sentence in the passage? *Incorrect* choices change the meaning in important ways or leave out essential information.

○ To simplify their task, climatologists use a set number of atmospheric characteristics, along with statistical measures, to classify climates globally.

○ Climatologists can determine the statistical classifications of climates based on temperature and precipitation.

○ Combining climates into countless categories was frustrating to climatologists because weather patterns differ across the world.

○ Understanding the causes of temperature and precipitation changes has helped climatologists to group climates effectively.

Knowledge that climate varies from region to region dates to ancient times. The Ancient Greeks (such as Aristotle, ca. 350 B.C.) classified the known world into torrid, temperate, and frigid zones based on average temperatures. It was also recognized that these zones varied systematically with latitude, and that the flora and fauna reflected these changes as well. With the further exploration of the world by Europeans, naturalists noticed that the distribution of climates could be explained using factors such as sun angles, prevailing winds, elevation, and proximity to large water bodies.

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