

Name: KEY

- 1) Science investigators initially use classification systems to
  - A) make more accurate inferences
  - B) organize their observations in a meaningful way
  - C) make direct comparisons with standard units of measurement
  - D) extend their powers of observation
- 2) Which statement about a major hurricane is an inference?
  - A) Damage from the storm is expected to be extensive.
  - B) The windspeed is measured at 200 km/hr.
  - C) The central air pressure is recorded at 946.0 mb.
  - D) A rain gauge records three inches of rain in less than one hour.
- 3) Which statement best illustrates a classification system?
  - A) A glacier melts at the rate of one meter per year.
  - B) Snowfall predictions for winter storms vary.
  - C) Stars are grouped according to their color.
  - D) Ocean depths are measured by using sonar.
- 4) A group of students observed and measured various characteristics of a stream for one day. Which statement about the stream is most likely an inference?
  - A) The water level of the stream will rise after the next rainfall.
  - B) The stream water is dark brown.
  - C) The velocity of the stream is greatest near the outside of a meander.
  - D) The stream's depth is different at various distances from the streambank.
- 5) Which action can be performed most accurately using only the human senses?
  - A) measuring the air pressure of a room
  - B) counting 28 shells from a beach
  - C) adding 10 grams of salt to a cup of water
  - D) tearing a sheet of paper into squares whose sides measure 1 centimeter
- 6) An interpretation based upon an observation is called
  - A) a measurement
  - B) a classification
  - C) an inference
  - D) a fact
- 7) The grouping of objects or events based on similar characteristics is called
  - A) measurement
  - B) interpretation
  - C) observation
  - D) classification
- 8) A classification system is based on the use of
  - A) inferences to make observations
  - B) instruments to observe properties of objects
  - C) the human senses to observe properties of objects
  - D) observed properties to group objects with similar characteristics
- 9) Scientists often use classification systems in order to
  - A) extend their powers of observation
  - B) make more accurate interpretations
  - C) organize their observations in a meaningful way
  - D) make direct comparisons with standard units of measurement
- 10) Which statement about a cumulus cloud seen over Syracuse, N.Y., is an inference?
  - A) The cloud has an irregular shape.
  - B) The base of the cloud is determined to be 2.6 km above ground.
  - C) The cloud appears white.
  - D) The cloud formed over Lake Ontario.
- 11) Using a ruler to measure the length of a stick is an example of
  - A) calculating the percent of error by using a proportion
  - B) measuring the rate of change of the stick by making inferences
  - C) extending the sense of sight by using an instrument
  - D) predicting the length of the stick by guessing