

Pre / Post Quiz for the Invasive Species Integrated Curriculum Unit.

Student Name _____

1. Which of these picture below shows the common reed, *Phragmites australis*?

A

B

C

D

E

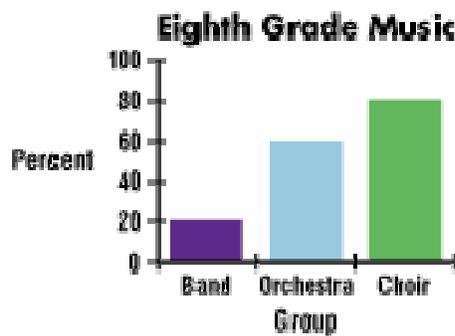


2. A scale bar indicates that 1 inch on a map represents 20 miles in the real world, and you measure the distance between 2 towns on that map as being 2 inches, how far apart are those towns in the real world?

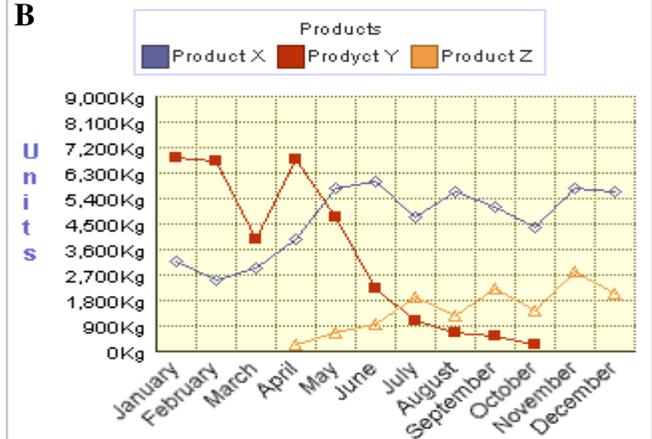
3. Invasion Rate of a plant = distance the population has expanded divided by
-
4. A student wants to know the number of a certain kind of plant within a marsh but the marsh is too big to allow her to count them all. She decides to take a sample using a quadrat. She takes her quadrat and throws it randomly into the marsh and counts all the plants in her quadrat. Her quadrat is 1/1000 the size of the marsh, so she multiplies by 1000 to estimate the number of plants in the whole marsh? What's wrong with this plan?
- You can't use quadrats to estimate population size
 - Not enough replicates
 - Her quadrat wasn't big enough
 - She shouldn't have used a random method to place the quadrat
 - She shouldn't have multiplied by 1000
5. Which of these are different species?
- 2 strains of flu
 - 2 varieties of sweet corn (like white and yellow)
 - Native and invasive *Phragmites*
 - Common reed and cattail reed
6. A strain is
- A group of different species
 - A group of related individuals within a species that look or act differently
 - A random group of individuals within a species
 - A kind of plant
7. Invasive species are
- Species which are alien to an ecosystem that cause harm if introduced into it
 - Species which make you sick
 - Species from outer space
 - Species from the same ecosystem that fight with one another for resources and mates
 - Species that tend to help make ecosystems healthier

8. Which of these is **false** regarding the data shown in the graphs below?
- The types of music participated in by eighth grade students (graph A) are categorical data
 - Percentage of students participating in different activities (graph A) is an example of continuous data
 - Time is a continuous variable (Graph B)
 - The largest slice of the pie in a pie chart represents the most abundant category of data (Graph C)
 - Fruit type is a continuous variable (Graph D)

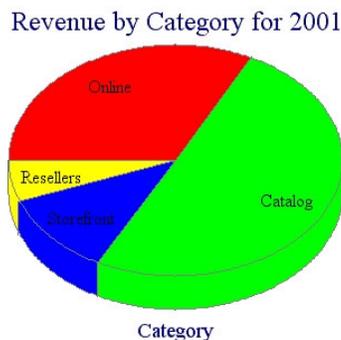
A



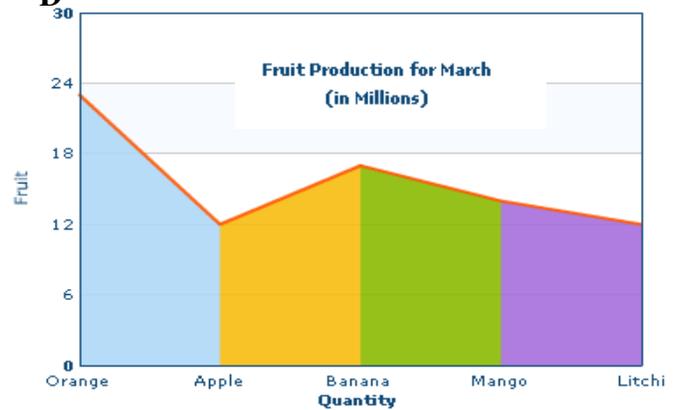
B



C



D



9. Which of the graphs above uses the wrong (incorrect) format for the data shown in it? Please circle the letter for the answer you choose.

- Should be a scatter graph because its trying to show a trend
- Should be a pie graph because the Y axis data are categorical
- Should be a line graph because you are trying to show a trend
- Should be a bar graph because the X axis data are categorical

10. What is one way you could distinguish between native and invasive strains of the common reed *Phragmites australis*?

11. True (T) or false (F)?

- a. Marshes have different plants and animals in them depending on the level of salt in them
T F
- b. Marshes have grasses not trees T F
- c. Phragmites can only grow in both fresh water marshes T F
- d. The loss of diversity associated with invasive *Phragmites* affects BOTH plants and animals T F
- e. If you can buy a plant at a local nursery or plant store it can't be a plant that may become invasive. T F
- f. When invasive *Phragmites* enters a marsh the result is often that the water levels drop and the marsh dries out T F

12. X → squirrel → hawk

The producer that could best be placed in position X would be a

- A. Wolf B. mushroom C. acorn D. worm E. rabbit

13. Fruit → mouse → Z

Which consumer could best be placed in position Z?

- A. Spider B. worm C. owl D. sunflower E. rabbit

14. A food web is more realistic than a food chain for showing the feeding relationships in ecosystems because
- a. it compares the number of consumers to the number of micro-organisms in an ecosystem
 - b. A food web explains why there are more producers than consumers
 - c. food chains use only a small sampling of organisms
 - d. producers are usually eaten by many different consumers and most consumers are eaten by more than one predator

15. What is transpiration?

- a. The process that makes people sweat when they get hot
- b. The process by which water is lost by evaporation from plant tissues
- c. The process of breathing in and out
- d. The process that converts sunlight into sugars in plants
- e. The process by which dead organic material is decomposed in the soil

16. Which of these factors is not a reason that transpiration rates are higher in invasive *Phragmites* than in native plants?

- a. More water is present in marshes in which invasive *Phragmites* grows
- b. Higher densities of stomata are present on leaves of invasive *Phragmites*
- c. Invasive *Phragmites* has higher stem densities
- d. Invasive *Phragmites* has a denser root system

17. Name THREE things you or your friends and family can do to avoid adding more invasive species to the environment

1.

2.

3.

18. When writing for a newspaper, a reporter tries to cover the “5 W’s and the H” of the story.
Fill in the blanks for what those stand for

Who, W _____, W _____, W _____,

Why and H _____?

19. An event that took place 4000 years ago, took place at approximately what date?

- a. 2000 AD
- b. 1000 AD
- c. 2000 BC
- d. 1000 BC
- e. 0 BCE

20. Why is the Rosetta Stone important?

- a. It tells the names of all the ancient Kings and Queens
- b. It allowed scholars to translate Egyptian hieroglyphics and demotic texts
- c. It adds fertilizer to soil to help plants grow better
- d. She was the most important language expert of her time
- e. It contains the secret for turning lead into gold

21. The Ancient Egyptians made pens out of

- a. Feathers
- b. The bones of their enemies
- c. Steel
- d. Reeds
- e. Plastic

22. True (T) or false (F) ?

- a. The Anasazi lived in New Jersey T F
- b. The Anasazi domesticated turkeys T F
- c. The Anasazi wove reed mats T F
- d. The Anasazi were a nomadic people who hunted and gathered food as they traveled from camp to camp T F
- e. The Anasazi were famous for their rock drawings or petroglyphs T F
- f. The Anasazi were a serious people who frowned on music, jewelry and other “frivolities” T F

23. Put the following in order starting with the poorest / least powerful member of medieval society

A. Farmer B. Monarch, C. Serf D. Noble E. Knight

24. Which of these is TRUE of invasive species?

- a. Tend to spread mostly without the help of humans
- b. Often first observed near ports or airports
- c. Usually less successful in a habitat than the native species that have had longer to adapt to that habitat
- d. Plants are the only kinds of thing that can be invasive
- e. Plants in a typical garden are usually wimpy competitors and are unlikely to become invasive if their seeds get into natural habitats.