

**2021-2022 TMSCA Elementary Science Test - BANA**

1. Grasslands, also known as prairies, are often found in the central part of the continents. What would be a reasonable explanation for this fact?  
A. Grasslands grow in areas that receive high rainfall.  
B. Prairies will only grow in areas that are flat and have no hills.  
C. Soils in the central part of the continents have high alkaline soils.  
D. The central part of the continents tends to be drier and provide the right conditions for grasses.
2. Underground layers of permeable rock and sand that hold water are called what?  
A. water tables      B. aquifers      C. artesian springs      D. hydro tanks
3. Presence or absence of beavers in an ecosystem can greatly affect other wildlife. This makes them a what?  
A. pioneer species      B. threatened species      C. keystone species      D. ectotherm species
4. Sarah was talking to her friend and said that her mom was an “angler”. Her friend looked confused, so Sarah explained that “angler” meant what?  
A. baker      B. engineer      C. person who goes fishing      D. person who builds bridges
5. What element has an atomic number of 26?  
A. Fe      B. Iron      C. both A and B      D. Aluminum
6. A cactus is adapted to live in a desert environment. One adaptation is its waxy cuticle which prevents what?  
A. water loss      B. animal predation      C. photosynthesis      D. extra growth
7. A community of organisms and their physical environment that is found around a body of water is called what?  
A. tundra      B. taiga      C. aquatic ecosystem      D. pond
8. Jenny’s neighbor installed a device that will stir the water in her backyard pond to expose the water to the air so that it will increase the oxygen in the water. What is this process called?  
A. aeration      B. buffer      C. eutrophication      D. lentic
9. Round areas in the high plains of Texas fill with water when it rains. These become temporary wetlands called what?  
A. oxbow lakes      B. playa lakes      C. lagoons      D. estuaries
10. If you cross a horse with a donkey, the offspring will be what?  
A. a mule      B. sterile      C. Both A and B      D. that is impossible

11. The understory plants of a forest need to do what?  
A. grow taller to get to the sunlight or they will die  
B. grow well in shade  
C. be able to tolerate high temperatures  
D. have thin leaves
12. A butterfly goes through a life cycle in four stages. What stage does it spend most of its time eating?  
A. pupa      B. adult      C. larva      D. egg
13. Which of the following should be close to the pH of tap water?  
A. 3      B. 5      C. 7      D. 10
14. What part of Texas has the most karst regions?  
A. east      B. central      C. far south      D. panhandle
15. What event happens when Earth's shadow falls on a full moon?  
A. solar eclipse      B. lunar eclipse      C. constellation      D. supernova
16. A group of stars, gas, and dust that is held together by gravity is called what?  
A. satellite system      B. constellation      C. galaxy      D. Oort cloud
17. Some soil types will allow water to flow through it more than others. Which soil type below is the most permeable?  
A. clay      B. loam      C. sand      D. gravel
18. Jesse was watching a bird chase another bird off a high line wire. It flew after the other bird until it had chased it away. Birds can be territorial which is an act of what?  
A. courtship behavior      B. submission      C. migration      D. aggression
19. Which organism below has a form of communication called bioluminescence?  
A. scorpions      B. fireflies      C. Both A and B      D. bats
20. What is the formula for calculating average speed?  
A. speed = distance travelled/time to travel that distance  
B. speed = time travelled/distance travelled  
C. speed = time travelled x distance travelled  
D. speed = distance travelled + time travelled
21. The tendency of an object to stay at rest or in motion unless acted upon by an unbalanced force is known as what?  
A. speed      B. momentum      C. Law of Inertia      D. 3<sup>rd</sup> Law of Motion

22. What Texas city has the highest elevation of these listed?  
A. San Antonio      B. Houston      C. Fort Davis      D. Amarillo
23. Segmented worms belong to what animal Phylum?  
A. Chordata      B. Annelida      C. Cnidaria      D. Echinodermata
24. Which of these would be attracted to a magnet?  
A. gold      B. iron nail      C. aluminum paper clip      D. Both A and C
25. Which of these substances in a 1 cm block would float in plain water?  
A. balsa wood ( $.11 \text{ g/cm}^3$ )      B. PET plastic ( $1.38 \text{ g/cm}^3$ )      C. copper ( $8.96 \text{ g/cm}^3$ )      D. marble ( $2.7 \text{ g/cm}^3$ )
26. Which of the following is a producer?  
A. frog      B. tadpole      C. salamander      D. duckweed
27. Approximately, how many bones are found in a human infant at birth?  
A. 200      B. 300      C. 50      D. 400
28. Nellie wanted to identify a tree in her yard. What could she use to do this?  
A. tree dichotomous key      B. tape measure      C. stump grinder      D. increment borer
29. The part of a flower that contains the ovary is called what?  
A. stamen      B. anther      C. petals      D. pistil
30. Which of these is equal to this number in this scientific notation?  $3.4 \times 10^7$   
A. 3,400      B. 34 thousand      C. 34 million      D. 34 billion
31. The study of ancient living things is called what?  
A. paleontology      B. archaeology      C. histology      D. ethology
32. A group of cells working together make what?  
A. organ      B. system      C. tissue      D. organism
33. What do Earth and Venus have in common?  
A. rotate east to west      B. rotate every 24 hours      C. have a greenhouse effect      D. have 1 moon
34. What gas do plants take in and use during photosynthesis?  
A. hydrogen      B. carbon dioxide      C. argon      D. oxygen
35. Blood cells are made where in the human body?  
A. bone marrow      B. heart muscle      C. lung tissue      D. liver
36. What is the chemical symbol for Potassium?  
A. P      B. Po      C. K      D. Pt

37. A long, huge sea wave caused by a disturbance is called what?  
A. hurricane      B. tsunami      C. earthquake      D. mesocyclone
38. When reporting data on a line graph for an experiment, what variable goes on the x axis?  
A. independent variable    B. dependent variable    C. controlled variable    D. none of these
39. Our sun is classified as what type of star?  
A. super giant      B. white dwarf      C. red giant      D. yellow dwarf
40. When you open a soda bottle, gas escapes. What type of change is this?  
A. chemical change      B. physical change      C. chemical reaction      D. oxidation
41. What is the SI unit of measuring distance?  
A. liter      B. mile      C. meter      D. gram
42. Who was the second person to walk on the surface of the moon?  
A. Michael Collins      B. Jeff Bezos      C. Neil Armstrong      D. Buzz Aldrin
43. What tool in the science lab is used to measure mass?  
A. meterstick      B. spring scale      C. graduated cylinder      D. balance scale
44. Using the first letters of each color, which shows the order of the colors in a rainbow?  
A. ROYGBIV      B. GBROYIV      C. YORBIVG      D. VIBGOYR
45. What transparent angular object can separate light by refraction into a spectrum of colors?  
A. concave lens      B. convex lens      C. prism      D. color wheel
46. What human bone(s) are found between the knee and the ankle?  
A. ulna and radius    B. tibia and fibula    C. humerus and femur    D. carpal and metacarpal
47. What chamber of the human heart has the strongest muscle to pump blood?  
A. right atrium      B. left atrium      C. right ventricle      D. left ventricle
48. About how much blood is found in an adult human's body?  
A. 2 pints      B. 4 pints      C. 6 pints      D. 10 pints
49. What do you call the tiny openings on the underside of green leaves?  
A. stomata      B. petioles      C. lamina      D. Both B and C
50. Allergies occur when a human's body overacts to what?  
A. stress      B. antigens      C. glucose level      D. heat

**2021 - 2022 TMSCA Elementary Science Test #8 - Key**

- |       |       |       |
|-------|-------|-------|
| 1. D  | 18. D | 35. A |
| 2. B  | 19. B | 36. C |
| 3. C  | 20. A | 37. B |
| 4. C  | 21. C | 38. A |
| 5. C  | 22. C | 39. D |
| 6. A  | 23. B | 40. B |
| 7. C  | 24. B | 41. C |
| 8. A  | 25. A | 42. D |
| 9. B  | 26. D | 43. D |
| 10. C | 27. B | 44. A |
| 11. B | 28. A | 45. C |
| 12. C | 29. D | 46. B |
| 13. C | 30. C | 47. D |
| 14. B | 31. A | 48. D |
| 15. B | 32. C | 49. A |
| 16. C | 33. C | 50. B |
| 17. D | 34. B |       |