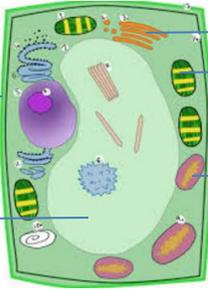


7<sup>th</sup> Grade Study Guide Benchmark 2

1. What is any change in the DNA of an organism that can be good or bad and could help them survive?

\_\_\_\_\_



2. label the parts of a plant cell.

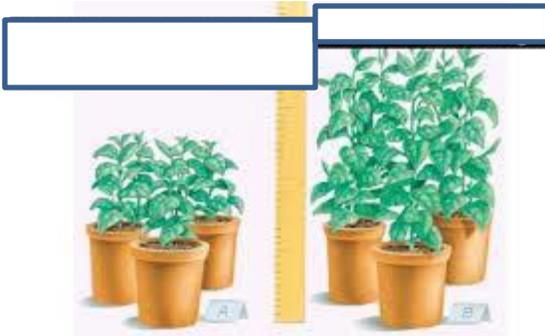
3. What in the cell carries our genetic code? \_\_\_\_\_

4. Who first discovered that genes are passed down through inheritance from our parents? \_\_\_\_\_

5. What are 3 examples of Unicellular organisms? \_\_\_\_\_

What are 3 examples of multicellular organisms? \_\_\_\_\_

6. Which one of these are inherited traits? ( blue eyes, long hair, tattoo, big ears, good at sports)



7.

Plants A and B were used to test what fertilizer is the best for growing plants. What is the dependent variable in this experiment? \_\_\_\_\_ What is the independent variable? \_\_\_\_\_. What is one constant you can tell by this picture? \_\_\_\_\_

8. What are the three components of the cell theory?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. If I wanted to measure the mass of the box what SI unit would I use? \_\_\_\_\_

13. If I needed to measure how much liquid was in my cup what SI unit would I use? \_\_\_\_\_

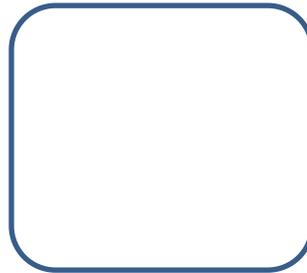
14. What record shows changes over time? \_\_\_\_\_

15. What are the levels of organization from least to greatest? \_\_\_\_\_  
\_\_\_\_\_

16. Write the formula for photosynthesis? \_\_\_\_\_

17. What are the reactants? \_\_\_\_\_ What are the products? \_\_\_\_\_

18. Draw a picture of what DNA looks like?

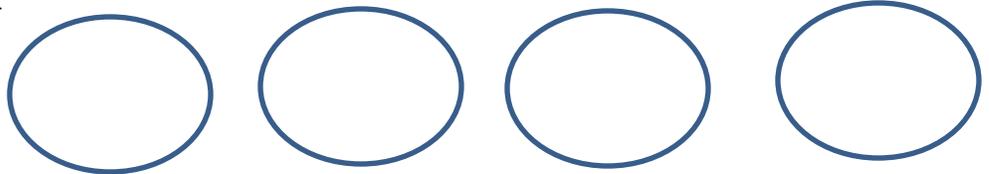


19. What are two differences between plant and animal cells? \_\_\_\_\_  
\_\_\_\_\_

22. How many chromosomes does a sex cell have? \_\_\_\_\_

23. What are the stages of the cell cycle? \_\_\_\_\_  
\_\_\_\_\_

24. Draw and label stages



25. What is a genetic difference that is beneficial to a species? \_\_\_\_\_

26. When a population is slightly different from one another but the same species, what is that called? \_\_\_\_\_

27. A dog and a rabbit could reproduce a baby? True or false -  
Why? \_\_\_\_\_ -

29. How can genetic engineering help farmers? \_\_\_\_\_  
\_\_\_\_\_

1. Flower color

- a. Purple is dominant (P)
- b. White is recessive (p)
- c. A PP father and a PP mother


- d. What color(s) are the parents?
- e. What color(s) are the children?

30.

31.

Seed shape

- a. Round is dominant (R)
- b. Wrinkled is recessive (r)
- c. An RR father and an rr mother


- d. What shape(s) are the parents?
- e. What shape(s) are the children?

32. What are the alleles that are hybrid in the Seed Shape\_\_\_\_\_

33. What are the alleles that are purebred?\_\_\_\_\_

34. What organelle lets proteins and other substances in and out of the cell?\_\_\_\_\_

35. When respiration happens in the cell what organelle is responsible for helping release the energy?\_\_\_\_\_

36. What does respiration help the body do?\_\_\_\_\_

37. When **water** moves from a low concentration to a high concentration it is called?\_\_\_\_\_

38. Sally has red hair and has inherited my mom's small mouth. What are the phenotypes identified here?\_\_\_\_\_

39. What are the five things that helped us show evolution? \_\_\_\_\_

40. review space: Rotation is \_\_\_\_\_

41. What are the inner planets called?\_\_\_\_\_ What are the outer planets called\_\_\_\_\_.

