Name _____ Date _____ Period _____ Score_____

Characteristics of Life

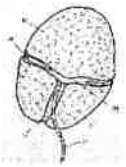
1. The scientific term for a living thing is a(n) _____.
2. All living things are _____.
3. What is the simplest level at which life may exist?
4. Are all cells alike?
5. All cells perform various jobs or _____.
6. What surrounds a cell and separates it from its environment?
7. What is the difference between unicellular and multicellular organisms?

8. Give an example of a multicellular organism and an example of a unicellular organism.
9. Multicellular organisms can be organized into what other levels?

10. **Circle** which of the following would be made of cells. Place a **box** around the ones that only show cell walls.

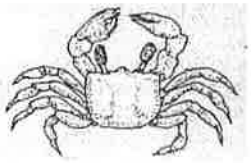
Cork Sponge Wood Plastic Tree

11. Examine these 2 organisms. Which one is unicellular and which is multicellular (label each)?



POND ORGANISM
(Under a microscope)

_____



CRAB

_____

12. Define reproduction.

13. Must EVERY member of a particular species (one kind of organism) be able to reproduce in order for the species to survive? Explain why or why not.

14. What would happen if all individuals in a species were sterile (not able to have babies)?

15. Reproduction is NOT essential for the survival of an individual _____ but is essential for the survival of the _____.

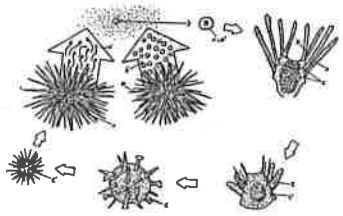
16. Name and define the two basic kinds of reproduction.

17. Identify which organisms are reproducing sexually and which are reproducing asexually.

BACTERIA

HYDRA

SEA URCHIN



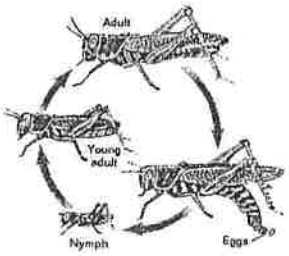
18. How do all organisms begin life?

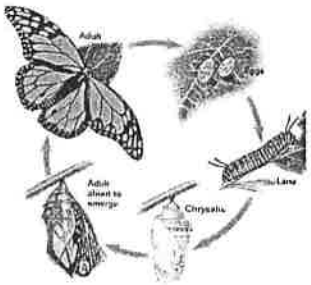
19. What is the difference between growth and development?

20. Do unicellular organisms GROW? Do unicellular organisms DEVELOP?

21. Do multicellular organisms GROW? Do multicellular organisms DEVELOP?

22. Identify which graphic BEST shows growth and which BEST shows development.





_____ _____

23. How is the growth of a living thing different from the growth of a nonliving thing?

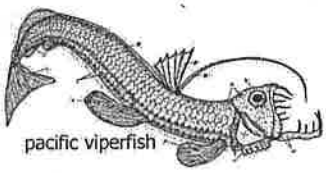
24. Define energy.

25. Why is energy important to a living organism?

26. What is the difference between an autotroph and a heterotroph?

27. What is the name of the process that plants use to make their own food using energy from the sun?

28. Identify each of the organisms below as either a heterotroph or an autotroph.



_____ _____

29. What are some environmental factors (stimuli) that organisms respond to?

30. Organisms must also respond to _____ factors in order to stay healthy & survive.

31. What are two internal factors that organisms respond to?

32. Give <u>two</u> examples from the reading of how living things respond to changes in their environment.

33. If light is applied to a human eye, how does it respond?

34. Describe homeostasis.

Identify the feature of life that is illustrated by each of the following statements. NOTE: You may use terms other than the characteristics of life!

35._____ "That boy shot up five inches in only one year."

36._____ "Our cat had a litter of kittens yesterday."

37._____ "Eat a good breakfast, and you will be able to run longer."

38._____ "That owl's night vision allows it to see the movement of mice on even the darkest night."

39. _____ "Your body normally maintains a temperature of 98.6° F."

40._____ "A giraffe uses its long neck to eat from the high branches of a tree."

41. Which of the following is a stimulus, which is a response?

a) the recess bell ringing in an elementary school

b) your mouth watering at the sight of food on a plate

c) a sudden drop in air temperature

d) a flu virus entering your body

e) getting "butterflies" in your stomach before giving a speech.

42. Determine if each of the following describes a living or nonliving thing.

a) rust eating a hole in a metal bucket _____

b) an apple on a tree _____

c) bacteria _____

d) lightning _____

e) a dinosaur fossil _____

f) a wasp _____