Name: _____

Date: _____ Grade: _____

Natural Science Mysteries

CHAPTER 4 TEST

Congratulations on completing this chapter! ***Answer the following questions to test your understanding of the material. When you finish, hand in your test to your teacher for a final grade. Each answer is worth 1.9 points.***

Matching: Choose the correct answers.

1. _____ cells
2. _____ semi-permeable membranes
3. _____ mitochondria
4. _____ plant stem
5. _____ vascular plants
6. _____ roots
7. _____ seeds
8. _____ fruit
9. _____ flowers
10. _____ xylem, phloem cells

(a) used as food; also serves to protect, then disperse seeds
(b) have circulation system of xylem and phloem cells; produce roots, stems, leaves, flowers
(c) building blocks of living organisms
(d) transport water, nutrients up from roots; carry food from leaves down to rest of plant
(e) contains plant embryo to grow new plant;dispersed by wind, water, animals, self-propulsion
(f) protects cell; controls what substances enter or exit cell
(g) for human enjoyment and to produce seeds to carry on the species
(h) houses xylem, phloem cells; produces buds and leaves on plants
(i) combines oxygen with nutrients at cellular level to produce energy
(j) underground variety called rhizomes or runners, called tubers if they store food.

True or False: Write the correct answers.

11. _____ Most spiders are beneficial to humans.
12. _____ Plants and animals are nearly identical in design and composition, but different in function and appearance.
13. _____ Mold grows slowest in warm, moist conditions.
14. _____ Spiders can travel hundreds of miles by air.
15. _____ Plants are designed to supply man's basic needs of food, clothing and shelter.
16. _____ The root system of a mature tree is nearly a mirror image of the tree's branch system.
17. _____ All natural fruits contain seeds.

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Fill in the blank: Choose the correct answers from the WORD BANK.

WORD BANK

DNA/RNA	fermentation	animals	plants	Fungi
photosynthesis	Protista	monocots	dicots	plasma
pasteurization	pollination	conifers	Monera	protoplasm
pathogens				

18. Transfer of pollen from male to female flower parts is called _____.
19. _____ is the process by which plants produce their food.
20. _____ is the substance of which every living cell is made.
21. The master chemicals for a cells blueprint or pattern for functioning is known as _____.
22. Disease producing bacteria are called _____.
23. Living things cannot be classed as _____ unless they have sense organs.
24. In order to be classed as _____, living things must contain chlorophyll or have a vascular system.
25. Members of the _____ kingdom, such as yeasts, molds and mushrooms are classified as neither plant nor animal.
26. The _____ kingdom is composed of algaes and protozoa which do not qualify as either plant, animal or fungi.
27. The _____ kingdom which was composed entirely of bacteria, has been divided into two kingdoms and renamed *Archebacteria* and *Eubacteria*.
28. The process of heating milk and other foods to certain temperatures to kill bacteria is called _____.
29. _____ is a process caused by the action of yeasts.

Matching: Choose the correct answers.

30. _____ Louis Pasteur
31. _____ Edward Jenner
32. _____ Joseph Lister
33. _____ John Ray

(a) Scottish physician credited with putting Germ Theory into practice; pioneered use of antiseptics and disinfectants in operation rooms; antiseptic mouthwash named after him
(b) French chemist, developed Germ Theory of disease and process of pasteurization of foods
(c) "Father of English Natural History," expert in botany and zoology
(d) British physician, developed first serum and small pox vaccination procedure

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Multiple Choice: Choose the correct answer.

34. The classification of animals without backbones, most of which have an exoskeleton (including jellyfish, sponges, all mollusks and arthropods) is called: _____.
    (a) bivalves (c) vertebrates
    (b) univalves (d) invertebrates

35. Animals with backbones (including frogs, fish, birds, reptiles and mammals) are: _____.
    (a) arachnids (c) vertebrates
    (b) mollusks (d) invertebrates

36. The classification of invertebrates including snails and their relatives (univalves, gastropods, bivalves), plus those with no shells (squid, octopuses, slugs) is called: _____.
    (a) arthropods (c) arachnids
    (b) mollusks (d) vertebrates

37. Invertebrates with exoskeletons and jointed legs, including insects, centipedes, arachnids and crustaceans are called: _____.
    (a) mollusks (c) bivalves
    (b) arthropods (d) univalves

38. Arthropods each having an exoskeleton, 6 legs, 3 body parts, compound eyes and antenna (including grasshoppers and butterflies) are classified as: _____.
    (a) insects (c) mollusks
    (b) social insects (d) gastropods

39. Arthropods each having an exoskeleton, 8 legs and 2 body parts, such as scorpions, spiders, ticks and mites are classified as: _____.
    (a) insects (c) crustaceans
    (b) social insects (d) arachnids

40. Arthropods such as termites, ants and bees that live in colonies and model hard work, good communication and teamwork are classified as: _____.
    (a) insects (c) arachnids
    (b) social insects (d) crustaceans

41. Which arthropod sub-group poses the greatest threat to human health? _____
    (a) insects (c) arachnids
    (b) centipedes (d) gastropods

42. Health concerns of mercury contamination, absorption of various other toxins and the possibility of contracting Hepatitis A center around consumption of the invertebrate groups: _____.
    (a) crustaceans and arachnids
    (b) arachnids and mollusks
    (c) mollusks and arthropods
    (d) crustaceans and mollusks

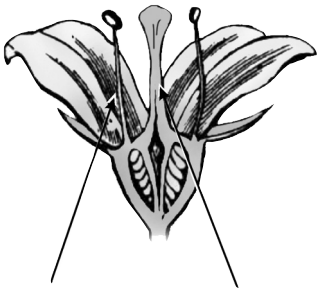
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43. Plants of which life cycles are complete in one growing season (such as wheat, corn, peas, beans, sunflowers) are called: _____.
    (a) annuals (c) perennials
    (b) biennials (d) tubers

44. Plants of which life cycles are completed in two growing seasons but are usually harvested for food at the end of the first growing season (such as carrots, cabbage, onions, radishes) are called: _____.
    (a) annuals (c) perennials
    (b) biennials (d) rhizomes

45. Plants of which life cycles continue for many years (such as trees and shrubs) and are used as building materials are: _____.
    (a) annuals (c) perennials
    (b) biennials (d) rhizomes

Label the male and female parts of the flower diagram below:



46. _____ 48. _____

47. (_____ part) 49. (_____ part)

Choose the best meaning for each Life Principle.

50. *"Bloom where you are planted*." _____
    (a) you have to be planted in order to bloom.
    (b) Do the best you can where you are.
    (c) Transplanted flowers and people do not fare well.

51. *"Listen to the voice of nature, for it holds treasures for you."* _____
    (a) Nature has many wonderful things to teach us, so pay attention to it.
    (b) If you listen when nature speaks, you will be rich.
    (c) Financial gain is measured by how well we pay attention to nature.

52. *"Unless the root cause of a problem is destroyed, it will come back to confront you."* _____
    (a) Roots cause problems and should be destroyed.
    (b) Root causes are problems that should be confronted.
    (c) Root problems must be eliminated; just dealing with the symptoms means the basic problem will return.

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