

CELLS- CHAPTER 1 & MICROSCOPE REVIEW

This test will cover the material in Ch. 1-2, 1-3 & 1-4, along with microscope information.

Chapter 1-2 Characteristics of Living Things

1. What is spontaneous generation? *Spontaneous generation is the idea that life can arise from nonliving matter (p.19).*
2. Did Francesco Redi prove or disprove this idea (spontaneous generation) with his experiment? *Redi disproved the theory (p. 19).*
3. What is the difference between a unicellular organism and a multicellular organism? *A unicellular organism is made of one, or a single, cell. A multicellular organism is made of hundreds, thousands, or even trillions of cells (p. 22).*
4. Define respiration. *Respiration is the process by which living things take in oxygen and use it to produce energy (p.24).*
5. What is an organism's life span? *An organism's life span is the maximum length of time it can be expected to live (p.25).*
6. What is the difference between a stimulus and a response? *A stimulus is any change in the environment or surroundings of an organism that produces a response. A response is some action or change in behavior of the organism (p. 25).*
7. Name and describe the 2 types of reproduction in living things. *Sexual reproduction requires 2 parents to produce offspring (p. 26). Asexual reproduction involves the production of offspring from only one parent (p. 27).*

Chapter 1-3 Needs of Living Things

8. Know the 5 basic needs of all living things & why each one is necessary. *Energy to be used for metabolism & all activities (p. 29). Food provides energy & raw materials to be used (p.29). Water is needed because most chemical reactions need it in order to happen (p. 30). Oxygen is necessary for respiration to take place (p. 31). Living space allows organisms to get the proper amounts of the other needs (p. 32).*

CELLS- CHAPTER 1 & MICROSCOPE REVIEW

9. What is the primary (original) source of energy for all living things? Hint: it is obtained either directly or indirectly by life *The primary (original) source of energy for all living things is the sun (p.29).*
10. What do you call the struggle among living things to obtain the necessary resources? *Competition is the struggle among living things to obtain the necessary resources (p. 32).*
11. What is the difference between a coldblooded and a warmblooded animal? *A coldblooded animal uses their behavior to help maintain homeostasis because their body temperature changes somewhat with their environment. A warmblooded animal maintains a constant body temperature all the time, allowing them to be active any time (p. 33).*

Chapter 1-4 Chemistry of Living Things

12. What are the four main elements found in all of the organic compounds? *The three main elements found in all organic compounds are carbon, oxygen and hydrogen (p. 35). The fourth element is nitrogen, which is found in proteins & nucleic acids.*
13. Carbon is found in many types of compounds. What word do we use to describe the types of carbon compounds that are associated with life? *Organic compounds are associated with life. The term organic refers to life (p. 35).*
14. What is the name of the sugar (a carbohydrate) that cells use to produce energy? *The body uses glucose to produce energy needed for life activities (p. 36).*
15. Which type of organic compound is made up of smaller building blocks called amino acids? *The building blocks of proteins are amino acids (p.36).*
16. What type of organic compound is DNA? *DNA is a nucleic acid (p. 37).*

Microscope Parts & Usage

17. Label the parts of a microscope & know the function of each part. *Refer to your worksheets!*

CELLS- CHAPTER 1 & MICROSCOPE REVIEW

18. How do you calculate the power of magnification? *You multiply the power of the ocular lens by the power of the objective lens.*
19. How does the view of the area of the slide change as you increase the magnification? *You see less area of the slide as you increase magnification.*
20. How does the view of the image change as you increase the magnification? *The view of the image gets bigger. It appears closer to you.*