NAME_____HR_____DATE_____

"Parts of the cell" and "Evolution of the Cell"

1. What are the most primitive single-celled organisms?
   Bacteria and blue-green algae

2. What kingdom do bacteria belong to?
   Monera

3. What are the 2 main parts of the cell?
   Nucleus and cytoplasm

4. what is the word meaning a cell has a distinct nucleus?
   eukaryotes

5. What are the two important components of the nucleus?
   Chromatin and nucleolus

6. what is the organelle that facilitates cellular respiration?
   mitochondria

7. what type of vacuole forces excess water out of the cell?
   Contractile vacuole

8. what organelle helps process food material and break down wastes?
   lysosomes

9. what part of the cell gives it structural rigidity?
   Cell wall

10. what are the two differences between plant and animal cells?
    Plant cell has a cell wall and chloroplasts

11. what part of the cell manufactures a specific protein?
    gene

12. how many chromosomes do humans have?
    46

13. what are microtubules compared to?
    skeleton

14. what do protozoans use for locomotion and capturing food?
    Cilia and/flagella

15. About how long ago do scientists think the earth was formed?

5 billion years ago

16. What were 2 of the 4 things mentioned in the film that made up the atmosphere of the earth?

Ammonia, methane, water & hydrogen

17 After millions of years, the atmosphere yielded what complex chemical compound which would become the essential building blocks of life?

Amino acids

18 Approximately how long ago did the 1ST organism, which was probably similar to a bacterium, become the predecessor of life on earth?

4 billion years ago

19 What term is defined as random changes in the chemical structure of the DNA molecule that can result in changes in the cells?

mutation

20 Which 2 kingdoms contain the simplest single-celled organisms?

Protista & Monera

21 What is the simple multicellular pond-dwelling organism that possesses special cells to carry out certain processes?

Hydra

22 What are the sites on the DNA molecule that control the production of specific proteins and determine the unique characteristics of cells?

genes

23 What is one of the two examples of a genetic disease that can be passed from generation to generation?

Sickle-cell anemia & cystic fibrosis

24. Where is the key to understanding the evolution of cell found?

In the changes that have occurred in the DNA molecules

25. Has this video helped your understanding of the parts of cell and evolution of the cell?