Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_

Cell Theory

What are the 3 parts of the Cell Theory?

1.

2.

3.

Draw lines to match the scientist to their discovery:

|  |  |
| --- | --- |
| 4. Anton Van Leeuwenhook | Discovered that all animals were made of cells with his colleague Schleiden |
| 5. Robert Hooke | Proposed that cells come from other cells, known as the Father of Medicine |
| 6. Matthais Schleiden | Developed a compound miscroscope and used it to observe single celled organisms. |
| 7. Theodor Schwann | Discovered that all plants were made of cells with his colleague Schwann |
| 8. Rudolf Virchow | First discovered the cell, named that after his room in the monastery he lived in. |

9. How did these scientists take what they learn and build onto previous discoveries?

10. How have further advancements in technology played a role in our understanding of the cell?

11. One of the most unifying principles in Biology is homeostasis. Define homeostasis and give a unique example of how the human body will attempt to achieve this:

12. Fill in the blanks:



13. Using Latin roots, decipher and differentiate the following two words:

|  |  |
| --- | --- |
|  Pro-kary-ote: | Eu-kary-ote: |

14. What kind of organisms might have prokaryotic cells?

15. What kind of organisms might have eukaryotic cells?

Organelles: look through the textbook (196-204) or use a reputable online source

|  |  |  |  |
| --- | --- | --- | --- |
| Organelle | Structure (Draw picture) | Function (how does it work) | Plant or Animal  |
| 16. Cell Wall |  |  |  |
| 17. Cell Membrane |  |  |  |
| 18. Vacuole  |  |  |  |
| 19. Cytoplasm/Cytoskeleton |  |  |  |
| 20. Ribosome |  |  |  |
| 21. Mitochondria |  |  |  |
| 22. Chloroplast |  |  |  |
| 23. Smooth Endoplasmic Reticulum |  |  |  |
| 24. Rough Endoplasmic Reticulum |  |  |  |
| 25. Lysosome |  |  |  |
| 26. Nucleus |  |  |  |
| 27. Golgi Apparatus |  |  |  |

28. How do the functions of one rely on the function of another?

29. Create an analogy in your notebook of a system with parts like the organelles and how they work together.

30. Using the knowledge you have just gained about Cell Theory and Organelles, create either a graphic organizer showing the information and how it relates to one another or write a poem, song or short story about the cell.

1.-3. Cell Theory- <http://www.kidsbiology.com/biology_basics/cells_tissues_organs/cell_history_discovery4.php>

11. Homeostasis- <https://www.thoughtco.com/homeostasis-defined-373304>

4. Van Leeunwehoek- <http://www.history-of-the-microscope.org/anton-van-leeuwenhoek-microscope-history.php>

5. Robert Hooke- begin reading below the two pictures

<http://www.ucmp.berkeley.edu/history/hooke.html>

6. Matthais Schleiden- <https://www.britannica.com/biography/Matthias-Jacob-Schleiden>

7. Theodor Schwann- <http://fig.cox.miami.edu/~cmallery/150/unity/cell.text.htm>

8. Rudolf Virchow- <https://www.famousscientists.org/rudolf-virchow/>

Scientists Quizlet- <https://quizlet.com/232721262/cell-theory-flash-cards/>

Organelles Quizlet- <https://quizlet.com/414811/cell-organelles-flash-cards/>

12. Picture of Organelles <http://thegreatestgarden.com/wp-content/uploads/animal-and-plant-cells-are-prokaryotic-or-eukaryotic.png>