

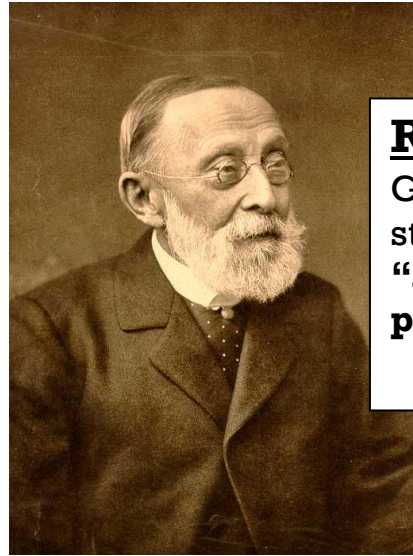
Cell Theory Timeline

Directions:

1. Study the Important Events that led to the Cell Theory
2. Cut out the individual parts that make up the timeline for the Cell Theory
3. Make an Informational Poster showing the events in order
 - *YOU should decide where the Title and 3 parts of the theory go on your poster
 - *Include your Name and Date
 - * Color and extra illustration is extra credit

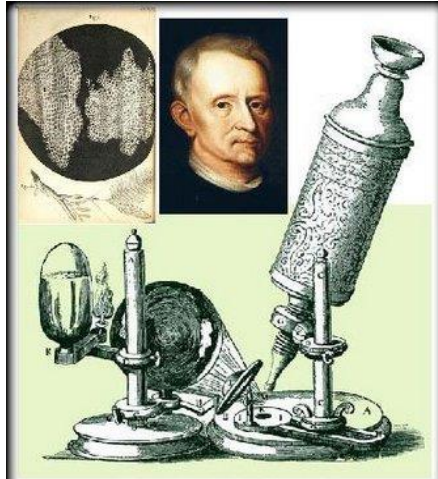
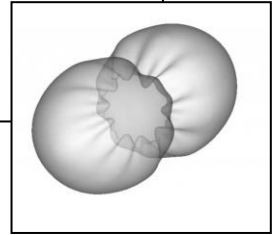
Before 1590:

First lenses used in Europe.
They were used to determine cloth quality (weave and precision).



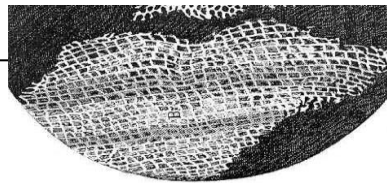
Rudolf Virchow: 1855

German physician (doctor) who studied cell reproduction
“All cells come from preexisting cells”



Robert Hooke: 1660

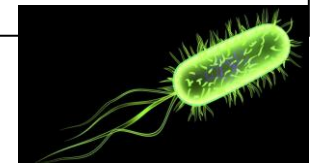
Used light microscope to look at thin slices of plant tissues called Cork.
The Cork looked empty, like monk's chamber so Hooke called the tiny chambers “cells”.
First to see **Non-living Cells**



Anton Van Leeuwenhoek: 1683

First to view **single cellular** pond water organisms.

First to see **living** microscopic organisms



Matthias Schleiden: 1838

German Botanist: scientist who studied plants

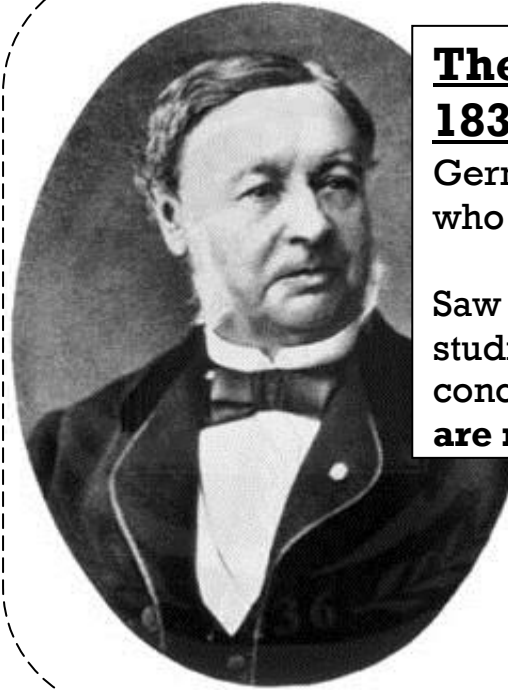
He said that all plants he looked at were made of cells, so he concluded: "**All plants are made of cells.**"



Theodore Schwann: 1839

German Zoologist: scientist who studied animals .

Saw that all animals he studied were cellular so concluded: "**All animals are made of cells.**"



The Cell Theory

*All living things are composed of cells
Cells are the basic units of structure and function in living things
New cells are produced from existing cells*

Cell Theory Timeline Questions:

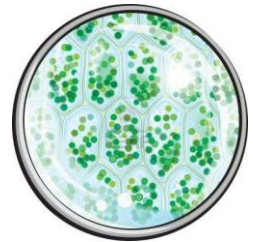
Name: _____

KEY CONCEPT Cells are the basic unit of life.

Background Information: The invention of the microscope in the late 1500s revealed to early scientists a whole new world of tiny cells. Most cells are so small that they cannot be seen without a microscope. The discoveries of scientists from the 1600s through the 1800s led to the cell theory, which is a unifying concept of biology. The cell theory has three major principles:



- All organisms are made of cells.
- All existing cells are produced by other living cells.
- The cell is the most basic unit of life.



Questions:

1. What is the smallest, most basic unit of life? _____

2. Why would you need a microscope to see a cell?

3. A friend tells you he read somewhere that rotting garbage can turn into maggots, which are fly larvae, and the maggots then can grow into adult flies.

What part of the cell theory could you use to disprove his claim?

4. What invention made it possible for the scientists to come up with the cell theory?

MAIN IDEA: Early studies led to the development of the cell theory. In a phrase, tell what each scientist did to help develop the cell theory.

Scientist	Date	Contribution to Cell Theory
1. Hooke		
2. Leeuwenhoek		
3. Schleiden		
4. Schwann		
5. Virchow		

What are the three parts of the cell theory?
