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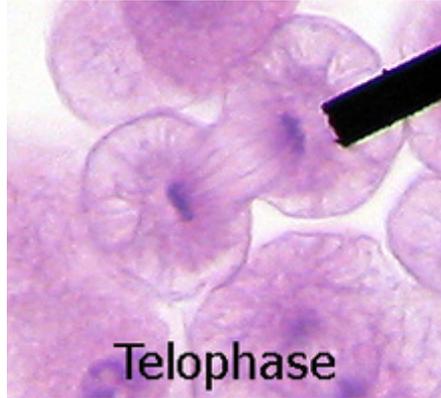


The Cell Theory

By Cindy Grigg

In 1665, Robert Hooke used a microscope to look at a thin slice of cork. He saw tiny little shapes that looked like little rooms with walls around each of them. He named them *cellulae*. This Latin word means "little rooms."

Almost two hundred years passed by. Microscopes were improved. In 1838, Matthias Schleiden saw that all plants were made of cells. At almost the same time, Theodor Schwann saw that all animals were made of cells. In 1855, Rudolf Virchow determined that all cells came from other cells. These three things are the basis of the Cell Theory:



1. All living things are made of one or more cells.
2. Cells are the smallest unit of life.
3. All cells come from other cells.

Today, the modern Cell Theory includes more ideas:

4. Energy flow takes place within cells.
5. Hereditary traits (DNA) are passed from cell to cell during cell division.
6. All cells have almost the same basic chemical makeup.

The Cell Theory is one of the basic principles of biology. It is the underlying main belief on which other ideas are based. Plants, animals, and all living things are made up of one or more cells. Cells cannot just happen - they come from other cells. Cells need energy to carry out their life processes. All cells are made up of

almost the same chemicals. Cells pass on their traits during cell division. The Cell Theory states what we know about cells.

The Cell Theory

Questions

1. What three scientists are given credit for the Cell Theory?

- _____ 2. The Cell Theory dates back to what year?

- A. 1856
- B. 1838
- C. 1795
- D. 1883

- _____ 3. What does the word "principle" mean?

- A. an estimate
- B. speculation
- C. a guess
- D. main belief on which other ideas are based

- _____ 4. The Cell Theory says that new cells just happen spontaneously.

- A. true
- B. false

- _____ 5. _____ are made up of at least one cell. Which word best fits in the blank?

- A. All living things
- B. Plants
- C. Animals
- D. Atoms

