Cells pg. 50

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| What are cells?  What is the structure of cells?  What are the functions of cells?  How many cells do we have on our skin surface?  How did the invention of microscope contribute to knowledge about living things?  How is Robert Hooke important?  How is Anton Van Leeuwenhoek important?  How is Schleiden, Schwann, and Virchow especially important?  What is the cell theory?  How can a microscope be useful?  How do microscopes produce magnified images?  Why is a compound microscope more useful?  What is resolution?  What do electron microscopes do?  Summary: | Cells are the basic unit of structure and function in living things.  The structures of living things are determined by the amazing variety of ways in which cells are put together.  The functions include obtaining oxygen, getting rid of wastes, obtaining food, and growing.  One square centimeter of your skin’s surface contains more than 100,000 cells.  The invention of the microscope made it possible for people to discover and learn about cells.  Hooke named cells.  Leeuwenhoek founded one-celled organisms and named the animalcules, meaning “little animals.”  In 1838, Schleiden concluded all plants are made of cells. In 1839, Schwann stated all living things are made of cells. In 1855, Virchow proposed that new cells are formed only from cells that already exist.  The cell theory states the following:   * All living things are composed of cells. * Cells are the basic units of structure and function in living things. * All cells are produced from other cells.   For a microscope to be useful, it must have two important properties- magnification and resolution.  The lenses in light microscopes magnify an object by bending the light that passes through them.  Compound microscopes can help see two things at the same time.  Resolution is another term for the sharpness of an image?  Electron microscopes use a beam of electrons instead of light to produce a magnified image. |