

Chapter 24: Cells

Directions: Read Ch.24 from the book *A Short History of Nearly Everything* by Bill Bryson and then answer the questions below.

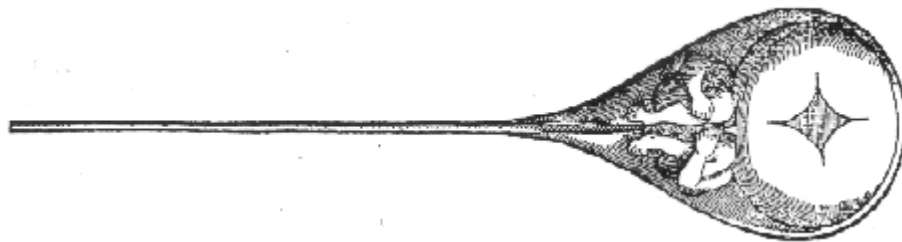
Analogy 1: *A cell has been compared to “a complex chemical refinery” or to “a vast teeming metropolis.”*

Analogy 2: *If an atom were the size of a pea, the cell would be a sphere a mile across. Within it, basketballs and cars would whiz around you.*

Analogy 3: *Read Bryson’s description of a cell in terms of a large scale. Does this help you picture what happens in a cell?*

Statement to Consider: *“We understand a little of how cells do the things they do.”*

1. How many different types of proteins are laboring away inside of you?
2. How does the poisonous compound nitric oxide (NO) help your cells and circulatory system?
3. How much bigger is an egg cell than a sperm cell?
4. Who was Robert Hooke and how did he help us learn about cells?
5. Who was Anton van Leeuwenhoek and how did he help us learn about cells?
6. Who was Robert Brown and how did he help us learn about cells?
7. Where did mitochondria come from?
8. What is apoptosis?
9. What is cancer?



Homunculus: A tiny person inside a sperm as drawn by Nicolaas Hartsoeker in 1695