# **Ch. 23 Cell Division**

**Notes**

Essential Question: How are mitosis and meiosis the same and different?

1. Cell Division
	1. Functions
		1. Growth
		2. Repair
		3. reproduction
2. Cell cycle – regular sequence of growth and division in cells
	1. Three phases
		1. Interphase- cells get ready to split
		2. Mitosis (asexual reproduction)
			1. Nucleus divides into 2 new nuclei
			2. 1 copy of DNA goes to each daughter cell
				1. Daughter cells = the cells formed when 1 cell divides
				2. Four phases

Prophase

Metaphase

Anaphase

Telophase

* + 1. Cytokinesis
			1. Cytoplasm divides
			2. Each daughter cell has a complete pair of chromosomes

Parent cells

Daughter Cells - two of each chromosome

Daughter Cells – “diploid” two of each chromosome

1. Meiosis (sexual reproduction)
	1. About
		1. A type of cell division that makes 4 cells
		2. Each cell made has ½ the number of chromosomes as parent cell
		3. Happens in ovaries (female) and testes (male)
		4. Produces gametes (sex cells: eggs and sperm)
		5. Consists of 2 cell divisions

First division

First division

Second division