

Meiosis Chapter 6.1 & 6.2

Section: 6.1 Meiosis

- Process of _____
- Purpose: Produces _____ – sperm & egg
- Meiosis is _____ a cycle like _____.

Types of cells in your body:

1. Body cells are also called _____.
 - _____
2. Gametes are also called sex cells.
 - Meiosis
 - Egg and sperm produced

Diploid Cells and Haploid Cells

- _____ – a cell that contains _____ chromosomes (one from each parent)
 - represented by the symbol _____
 - Found in _____ or _____ (ex. Skin, digestive tract)
 - Example : Humans _____
- _____ – a cell that contains only a _____ of chromosomes (one from either parent, _____);
 - represented by the symbol _____
 - Found in _____ gametes or _____ – sperm & egg
 - Example: Humans _____

Human chromosomes

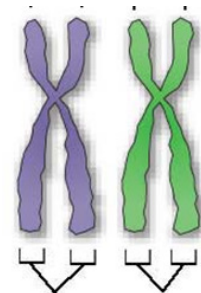
- Your body cells have _____.
- Pairs 1-22 are _____
 - They _____ contain any _____ dealing with the _____ of an organism.
- _____ (X or Y) determine gender in mammals and are _____.
- They are in _____, meaning both chromosomes have _____.
 - One from _____

Sexual Reproduction

- Sexual reproduction: the _____ (egg & sperm) to produce offspring that are a _____ of both parents
- _____: the actual fusion of an _____
- Egg & sperm _____ of the number of chromosomes—1 from each homologous pair

Homologous Chromosomes

- Pairs of homologous chromosomes separate in _____.
- Homologous chromosomes are _____ but not _____
- Sister _____ divide in _____
- Sister chromatids are copies of the _____

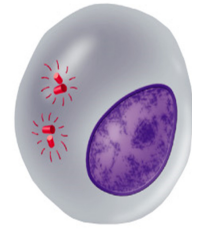


Section: 6.2 Process of Meiosis

- Cells go through _____.
 - _____ (4 phases)
 - _____ (4 phases)
- By the end of Meiosis II, the 1 diploid cell that entered meiosis has become _____
- Meiosis reduces chromosome number and creates _____.

Interphase

- Stage between _____
 - One before _____ and one before _____
- Contains: centrioles and chromatin
- Made of stages: _____







Meiosis I (four phases)

- Meiosis I occurs after _____.
- Cell division that reduces the _____ number by _____.
- **4 phases:** _____

	<ul style="list-style-type: none"> • _____ chromosomes from each _____ to form homologous pairs during _____ • When homologous chromosome overlap its called _____. • Crossing over happens when parts of the _____ chromosomes _____ places after _____ • It increases _____ • Draw crossing over here: 	
	<ul style="list-style-type: none"> • The centrioles send out spindle fibers to line up homologous pairs in the _____ of cell • _____ <p>OCCURS:</p> <ol style="list-style-type: none"> 1. Alignment of homologous pair to poles is _____. 2. _____ 	
	<ul style="list-style-type: none"> • The centrioles use the spindle fibers to _____ the homologous pairs • Each homologous chromosome is _____ to the _____ of the cell • A _____ causes the gametes to have the wrong amount of chromosomes 	
	<ul style="list-style-type: none"> • Telophase I – the cell creates a _____ around the two _____ sets • _____ – the cell divides into _____ 	

Meiosis II (four phases)

- The _____ cells produced by meiosis I now enter a _____ meiotic division
- The cells do _____
- Each _____ of the original DNA
- Resulting in _____
- _____

	<ul style="list-style-type: none"> • Each of the Meiosis II stages are running in _____ cells at the _____. • Similar to Prophase of _____ • Centrioles attach _____ to the _____ 	
	<ul style="list-style-type: none"> • Centrioles use spindle fibers to line up the chromosomes in the _____ • Similar to _____ 	
	<ul style="list-style-type: none"> • The centrioles use the spindle fibers to _____ the chromosomes into individual _____ • Each chromatid is pulled to the _____ pole of the cell 	
	<ul style="list-style-type: none"> • Telophase II – the cells creates a permanent _____ around the two _____ chromosome sets • Cytokinesis – the cells divides into _____ haploid _____ 	

Haploid cells develop into Gametes (Sex Cells)

- _____ is the production of gametes.
- In _____ animals (including humans), the haploid gametes produced by meiosis are called _____
 - _____ sperm are produced
 - Sperm become _____
 - Produced constantly after _____
- In _____ animals (including humans), the haploid gametes produced by meiosis are called _____
 - 1 large egg is produced along with 3 other cells, called _____, which are discarded and not involved in _____
 - All produced _____ and releases one monthly

	Mitosis	Meiosis
Number of cells at beginning of process		
Number of cells at the end of the process		
Number of chromosomes at the START		
Number of chromosomes at the END		
Is the genetic make-up of the daughter cells UNIQUE or IDENTICAL?		
Type of cell in the human body that can undergo each phase		

