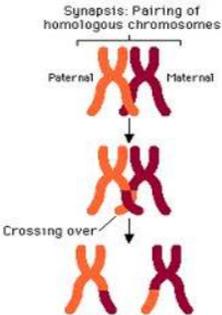
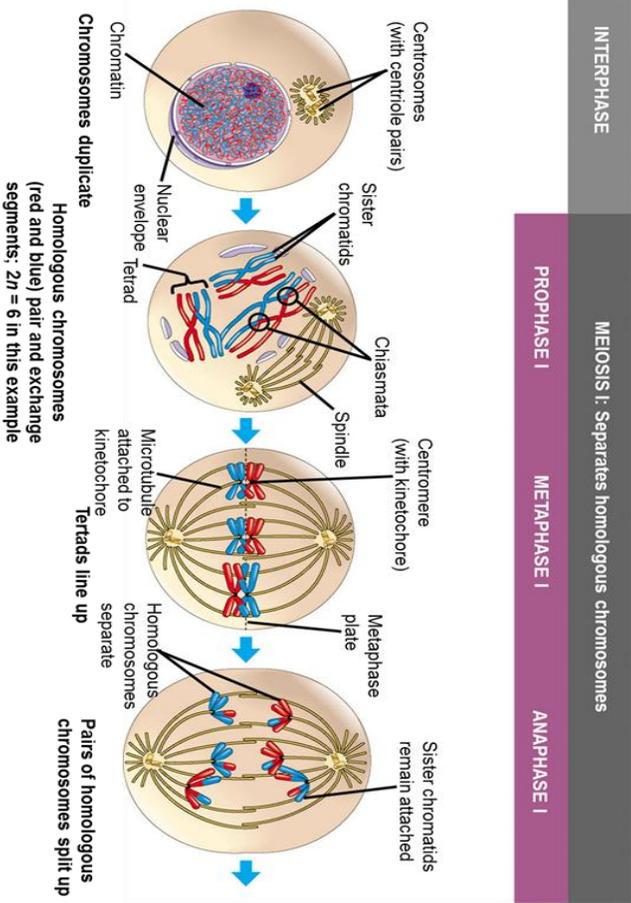


<p>Questions Create questions that will result in critical thinking; draw pictures if helpful</p>	<p>Meiosis</p> <ul style="list-style-type: none"> Is a process of nuclear division that reduces the number of number of chromosomes in half. produces haploid(n) reproductive cells called gametes human gametes are sperm and egg cells when sperm fertilizes the egg it is a zygote with diploid number of chromosomes <p>Stages of Meiosis</p> <ul style="list-style-type: none"> like mitosis, sex cells that go through meiosis undergo interphase(G1, S, G2) and <u>copies its DNA</u> Cells undergoing meiosis divide TWICE and result in 4 haploid cells, but only copies DNA once! <p>Meiosis I</p> <p>Prophase I</p> <ul style="list-style-type: none"> Dna coils, nucleus and nucleolus disappear like in mitosis - <u>BUT</u> homologous chromosomes pair up-side by side; this is synapsis Each pair is called a tetrad Crossing-over takes place where parts of the tetrads twist around at the ends; they can break off or reattach; this contributes to genetic recombination-mixing of genetic material between maternal and paternal chromosomes  <p>Metaphase I</p> <ul style="list-style-type: none"> Homologous chromosome pairs randomly line up at the middle with spindle fibers attached to the centromeres <p>Anaphase I</p> <ul style="list-style-type: none"> Homologous chromosomes split at centromeres Independent assortment is the random separation of maternal and paternal chromosomes which results in genetic variation. <p>Telophase I</p> <ul style="list-style-type: none"> Homologous chromosomes reach the far ends of the cell, sometimes the nucleus starts to reappear; sometimes not <p>Cytokinesis I-two new daughter cells form, each with a homologous pair; two copies of the original chromosome</p> <p>Meiosis II</p> <ul style="list-style-type: none"> AFTER CYTOKINESIS I, DNA IS NOT COPIED!-cell goes right into Prophase II where spindle fibers form and attach to chromosomes at centromere; Metaphase II the chromosomes line up; Anaphase II the chromosomes separate and move to the poles; Telophase II nucleus reappears and starts to form 4 new cells. CYTOKINESIS II: Results in 4 new cells called gametes; each with half the number of chromosomes of the original cell
	<p>Summary of what you have learned:</p>



Pictures: Campbell and Reece, Biology 7th

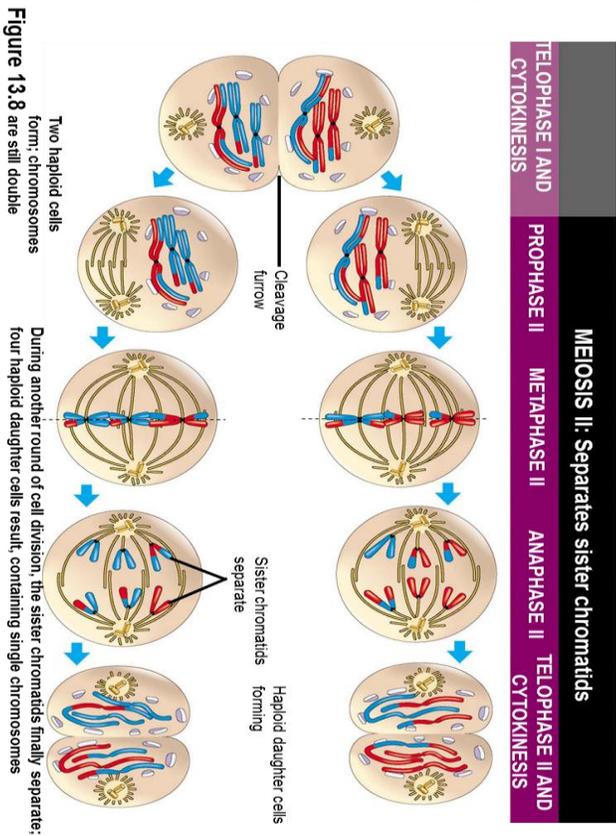


Figure 13.8