11/08

* Making RNA
	+ Step one, unzip the DNA
		- TAC GCG TGC ATT ACT AAA ATC ACT
	+ Step two, take the complement
		- ATG CGC ACG TAA TGA TTT TAG TGA
	+ Replace T’s with U’s
		- AUG CGC ACG UAA UGA UUU UAG UGA
		- Voila RNA
* Making Proteins
	+ The ribosomes read the RNA three letters at a time and each sequence codes for a specific amino acid
		- AUG – met/start
		- CGC – arg
		- ACG – Thro
		- UAA – Stop
		- UGA – Stop
		- UUU – pheno
		- UAG – Stop
		- UGA – Stop
	+ Ribosomes look for a start
		- It won’t make amino acids from “junk” DNA
		- Finds the start and creates, and connects amino acids
		- Processes until “stop” code
	+ DNA replication
		- When,
			* Interphase
				+ Most of the cell’s life span is spent in interphase
				+ It’s getting bigger and copying it’s DNA, preparing for miosis
			* And mitosis
				+ It’s the splitting of the cell
		- where,
			* It’s where the DNA is
				+ The nucleus
		- and how does it happen?
			* Easy
				+ DNA molecule unzips
				+ Bases are read
				+ Complementary bases are paired on each of the two strands
				+ Both strands are proofread
				+ Mistakes are cut out and corrected
				+ Process resumes
			* And ta-da, new DNA
* Mutations
	+ Bad reputation
	+ Tend to be disruptive
	+ Fairly common
	+ Causes and effects of mutation
		- Alteration of the sequence of bases in DNA
			* Can lead to changes in the structure and function of the proteins produced
			* Can have a range of effects
		- Mistakes in copying DNA
			* Nothing you can do about it
		- Chemical exposures
			* Prop 65 posters in CA
		- Radiation

Gametes – sex cells (sperm and eggs)

Somatic Cells – cells that make up your body