Ch 13.1 Notes

DNA- nucleotides = Information to synthesize proteins/enzymes

* In Gametes

Fertilization

* Somatic cells

DNA amount

1 Chromosome= hundreds/thousands genes

Locus

Sexual v. Asexual Reproduction

Sexual reproduction

* Gamete fusion
* Two genetic parents
* Genetic diversity
* Offspring are unique mix of parent info

Asexual

* Need information from ONE source
  + NO partner needed
* Mostly single celled organisms do this
* Faster and more efficient
* Clones cell
  + Mutation
* No gamete fusion

Advantages/Disadvantages of Asexual Reproduction

Advantages

* Conditions don’t change. Could be more advantageous than sexual
  + Less time
  + Less energy
  + No partner needed
  + Exact copies of genes passed down

Disadvantages

* Changing conditions? Sexual better
  + Environment changes? Maybe not equipped to deal with it and they all die
* Bad genes? Passed on
* No genetic variation

Advantages/disadvantages of sexual reproduction

Advantages

* Changing conditions? Sexual better
  + Environment changes? Maybe not equipped to deal with it and they all die
* Partner’s DNA can take over if bad genes
* Genetic variation

Disadvantages

* Conditions don’t change? Don’t want to change the DNA for offspring
* **More** time
* **More** energy
* Partner **needed**