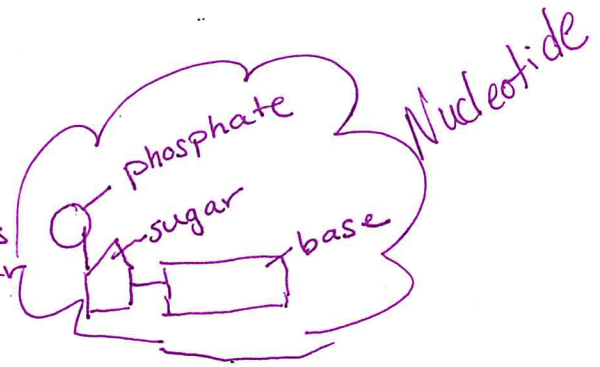


DNA Stuff

1. What are nucleotides made of?
 Sugar, phosphate, base
2. What makes up the sides of the DNA model?
 Sugar, phosphate
3. How are the bases attached to the sides and to each other?
 attached to sugars on the sides,
 hydrogen bonds to each other
4. What is the overall shape of DNA?
 double helix
5. What direction does DNA twist?
 clockwise
6. What makes a lovely pair?
 adenine-thymine
7. What needs what to not be bare?
 cytosine-guanine
8. What replaces what in RNA versus DNA?
 uracil replaces thymine
9. What is the sugar in RNA?
 ribose
10. What is the sugar in DNA?
 deoxyribose
11. What is a DNA fingerprint?
 a unique pattern of bands
12. What is meant when it is said that the DNA Code is "universal"?



DNA Replication Stuff

1. How is the strand of DNA unzipped? What is that thing called specifically that does the unzipping?
 helicase enzyme breaks the hydrogen bonds
2. What is the enzyme that creates the new strand called?
 DNA polymerase
3. What is the complement to ATCCTCAGGTAA?
 TAGGAGTCCATT

Protein Synthesis Stuff

1. How many amino acids does the DNA sequence ACCTAGTTGACC code for?
 4 codons = 4 amino acids
2. Which of the nucleotide is *not* found in an RNA strand?
 thymine gets replaced with uracil
3. The process of making mRNA from DNA is called:
 transcription ... in the nucleus
4. What three ways does RNA differ from DNA.
 • can't leave the nucleus
 • thymine → uracil
 • double stranded → single stranded
 • deoxyribose → ribose
 • leaves nucleus
5. The organelle where eukaryotic DNA is located is called:
 nucleus
6. The organelle that is used to make proteins is called:
 ribosome
7. What is the name of the process in which DNA creates protein?
 protein synthesis
9. In transcription a strand of DNA with the following sequence AGATTCCGATT, would code for a strand of mRNA with the sequence:
 UCUAAGGCUAA
10. How many bases are in a codon?