|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Hershey and \_\_\_\_\_\_\_DNA StructureChargaff’s RuleBase PairingThe \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(step 1)(Step 2)Making the Protein(Step 3)The genetic codeStart and stop codons | * **Virus -made of \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_**
* **The experiments**
* a virus with either \_\_\_\_\_\_\_\_\_\_\_\_\_\_ DNA or radioactive protein were used to \_\_\_\_\_\_\_\_\_ bacteria
* Either the radioactive \_\_\_\_\_\_\_\_\_\_ or radioactive DNA would be \_\_\_\_\_\_\_\_\_\_\_ to the bacteria
* Identifying \_\_\_\_\_\_\_\_ \_\_\_\_\_ is transferred would identify the \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_.
* Only the radioactively labeled \_\_\_\_\_ was transferred.
* **Composed of \_\_\_\_\_\_\_\_\_\_\_**
* nitrogen containing base, a five -carbon sugar (\_\_\_\_\_\_\_\_\_\_\_), and a \_\_\_\_\_\_\_\_\_\_ group.
* **Four possible bases: \_\_\_\_\_\_\_\_\_ (A), \_\_\_\_\_\_\_\_ (G), \_\_\_\_\_\_\_\_\_ (C), or \_\_\_\_\_\_ (T)**
* **1st: The composition of DNA \_\_\_\_\_\_ from one \_\_\_\_\_\_ to another.**
* **This molecular diversity added \_\_\_\_\_\_\_\_\_ that DNA could be the genetic material.**
* **2nd: the \_\_\_\_\_\_\_\_\_\_ of one base always approximately \_\_\_\_\_\_ the amount of a particular second base.**
* **Example: \_\_\_\_\_\_\_\_\_\_ equals the number of \_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_- Adenine and guanine**
* \_\_\_\_\_ ring structures.
* **\_\_\_\_\_\_\_\_\_- Thymine and cytosine**
* \_\_\_\_ ring structure.
* **A purine \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ with a pyrimidine in the DNA double helix!**

  Purine Pyrimidine * **\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_**
	+ Worked with DNA fibers.
	+ Maurice Wilkins, used \_\_\_\_\_\_\_ diffraction \_\_\_\_\_\_\_\_\_\_ techniques to analyze the structure of DNA.
* **In February 1953, Francis \_\_\_\_\_\_ and James D. \_\_\_\_\_\_\_ had started to build a model of DNA.**
	+ indirectly obtained Franklin's data which had crucial information

**Crick and Watson then \_\_\_\_\_\_\_\_\_\_\_ their \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ model of DNA! (They get most of the credit)**

|  |  |  |
| --- | --- | --- |
|  | **RNA** | **DNA** |
|  |  |  |
| **Specific Base** |  |  |
| **Sugar** |  |  |
| **Size** |  |  |
| **Location** |  |  |
| **Types** |  |  |

 **RNA DNA*** \_\_\_\_\_\_ → \_\_\_\_\_\_\_ → \_\_\_\_\_\_\_
* **The process is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!**
* **\_\_\_\_\_\_\_\_\_\_ protein!!!**

 **“\_\_\_\_\_ → \_\_\_\_\_\_”** * **When a section of DNA is copied to RNA**
* **RNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Happens in the \_\_\_\_\_\_\_\_\_\_\_\_\_**
* **“\_\_\_\_\_ → (amino acids)\_\_\_\_\_\_\_”**
* **The transfer of the instructions in RNA to a protein made of amino acids.**
* **Happens in the \_\_\_\_\_\_\_\_\_\_\_ and interacts with a ribosome.**
* **There are \_\_\_ different amino acids**
* **It takes\_\_\_ letters (A,U,G,C) to code for each \_\_\_\_\_\_\_ \_\_\_\_\_\_**
* **mRNA is divided into three-base segments called codons.**
* **A \_\_\_\_\_\_\_ is the segment of nucleotides that codes for an amino acid**
	+ or for a start or stop signal
	+ There are 64 codons.
	+ Amino acids make \_\_\_\_\_\_\_\_
* **\_\_\_\_\_\_ codes for the amino acid \_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **“The \_\_\_\_\_\_\_ codon” which begins every translation of every amino acid chain.**
* **There are three \_\_\_\_\_\_ codons: UAG, UGA, UAA.**

**What does UAG code for? \_\_\_\_\_\_\_\_\_\_\_****What does GUA code for? \_\_\_\_\_\_\_\_\_\_\_** |
|  |  |