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| Hershey and \_\_\_\_\_\_\_DNA StructureChargaff’s RuleBase PairingThe \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Human Genome projectEthical, Legal, Social issuesBiogenetics Concerns | * **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** |  |  |

* The completion of \_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_! WOW!!!!!
* However, is knowing all of our \_\_\_\_\_\_\_ a good thing?
* Imagine someone analyzes part of your DNA. Who \_\_\_\_\_\_\_\_ that information?
* What if your \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ found out you were predisposed to develop a devastating genetic disease. Might they decide to \_\_\_\_\_\_\_ your insurance? Privacy issues concerning genetic information is an important issue in this day and age.
* \_\_\_\_\_\_\_\_ stands for Ethical, Legal and Social Issues.
* Who \_\_\_\_\_\_\_\_ genetically \_\_\_\_\_\_\_\_\_ organisms such as bacteria?
* Can such organisms be \_\_\_\_\_\_\_\_\_\_\_ like inventions?
* Are genetically modified \_\_\_\_\_\_\_ safe to \_\_\_\_\_? Might they have \_\_\_\_\_\_\_\_ harmful effects on the people who consume them?
* Are genetically engineered crops safe for the \_\_\_\_\_\_\_\_\_\_\_\_?
* Might they \_\_\_\_\_\_ other organisms or even entire ecosystems?
* Who controls a person’s \_\_\_\_\_\_\_\_ information? What safeguards ensure that the information is kept \_\_\_\_\_\_\_?
* How far should we go to ensure that children are free of \_\_\_\_\_\_\_\_? Should a pregnancy be \_\_\_\_\_\_\_ if the fetus has a mutation for a serious \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_?
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|  |  |