**Notes: DNA Structure Notebook p**. 6

**Objective**: *Describe the structure of DNA and the scientist contributions leading up to it.*

|  |  |
| --- | --- |
|  | James Watson & Francis Crick* built first model of DNA
* discovered structure of DNA
* won Nobel prize for it!

Rosalind Franklin* took X-ray photographs of DNA
* predicted shape and composition of DNA

Structure of DNA* shape: double helix (twisted ladder)
* composed of:
	+ backbone:
		- deoxyribose sugar
		- phosphates
	+ nitrogen bases on the “ladder’s rungs”
		- adenine (A)
		- thymine (T)
		- cytosine (C)
		- guanine (G)
* Nitrogen bases always pair up: A with T and C with G

The sequence of nitrogen bases determines the traits of an individual.DNA replication* making an exact copy of DNA
* DNA “unzips” and new nitrogen bases are added to each side
 |

**Summary:** *Using complete sentences: What is DNA made of?  Why is DNA replication important?*