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

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

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|  | 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?*