

**Figure 1.** Molecular structure of nucleotides, showing phosphates and sugars. (DR=deoxyribose; R=ribose. Ribose and deoxyribose are different forms of 5-carbon sugars). At each ‘bend’ in the chemical structure without anything labelled, there is a carbon atom (see Figure 2). Source: <http://a.2002-acura-tl-radio.info/page-a/diagram-of-nucleotide-gene-78006.html>

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| 9.1 The Structure of DNA – Concepts of Biology-1st Canadian Edition – Molnar**Figure 2.** Complete chemical structure (including carbon atoms) of *nitrogenous bases only* (phosphates and sugars absent). Source: https://opentextbc.ca/conceptsofbiology1stcanadianedition/chapter/9-1-the-structure-of-dna/  | Phosphodiester bond - Wikipedia**Figure 3**. Successive nucleotides are linked by phosphodiester bonds, where the phosphate’s oxygen atoms bond covalently with carbon atoms on the 5-carbon sugars. Source: https://en.wikipedia.org/wiki/Phosphodiester\_bond |