

DNA and RNA

DNA Replication

DNA Transcription

Search this course

## Module 9 / Hydrogen Bonding of Bases

56

Identify correct base pairing between DNA and RNA bases.

Correctly draw the hydrogen bonding between DNA and RNA bases.

Describe why AT and AU base pairs are weaker than GC base pairs.

Describe why purines are always paired with pyrimidines to form the helix structures of DNA and RNA.

## Hydrogen Bonding Between Bases

The following is an interactive simulation that allows you to form [hydrogen bonding](#) pairs between the appropriate bases in DNA and RNA that would be allowed in the formation of the double helical structure. You should apply the definition of the hydrogen bond to form all possible hydrogen bonds in any pair of bases you choose. All of the possible hydrogen bonds may be useful later as we explore multiple structures especially for RNA. The focus of this exercise is to identify bonding partners that will be optimal in the formation of the DNA and RNA helical structures.

Flash Player needed! Please click [here](#) to install Flash Player.

Select the proper base from the right to bond with the example on the left. Draw the hydrogen bonds between them and then click the Done when you have drawn all of the bonds and then identify the bases.

**did I get this**

As you find the correct pairings that maximize the number of hydrogen bonds within pairs, what else do you notice about the structure of the correct pairs?

[Reset this Activity](#)[Open Learning Initiative](#)

56



Unless otherwise noted this work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License](#).