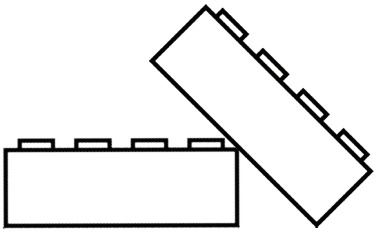
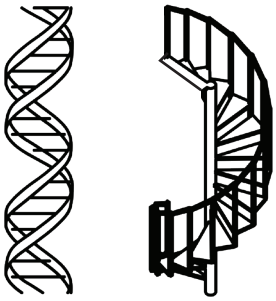
DNA LEGOS

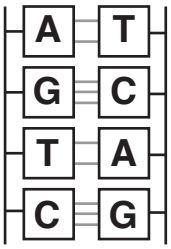


DNA is the molecule that stores the genetic information of a cell. It is found in all living things. DNA is made up of **nucleotides** that bond together to form a **double helix**, which looks like a spiral staircase.



A nucleotide is made up of two parts: (1) a sugar-phosphate backbone and (2) a base. There are four types of bases - A, T, C, and G - and the base determines which type of nucleotide it is.

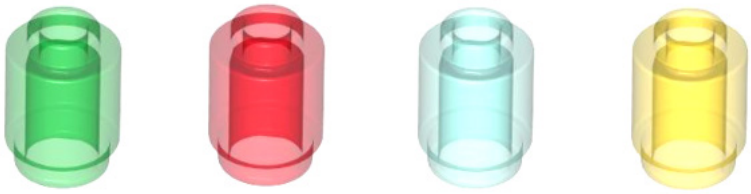
When the double helix assembles, each base forms **hydrogen bonds** with another **complementary base**, making a pair. The bases pair in a predictable way: A always pairs with T, and C always pairs with G.These **base pairs** make up the “steps” of the staircase, while the sugar-phosphate backbone forms the “railings.”



LEGO CHALLENGE

Now you try to assemble a DNA double helix out of the Lego building blocks provided:

Bases:



A **T** **C** **G**

Sugar-phosphate backbone

Hydrogen bonds

Building platform