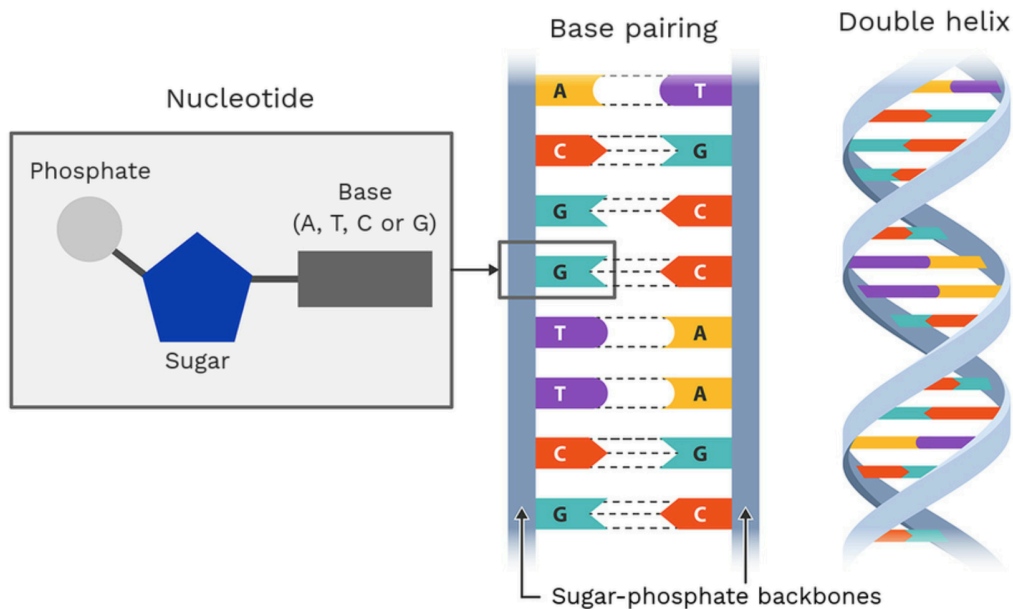
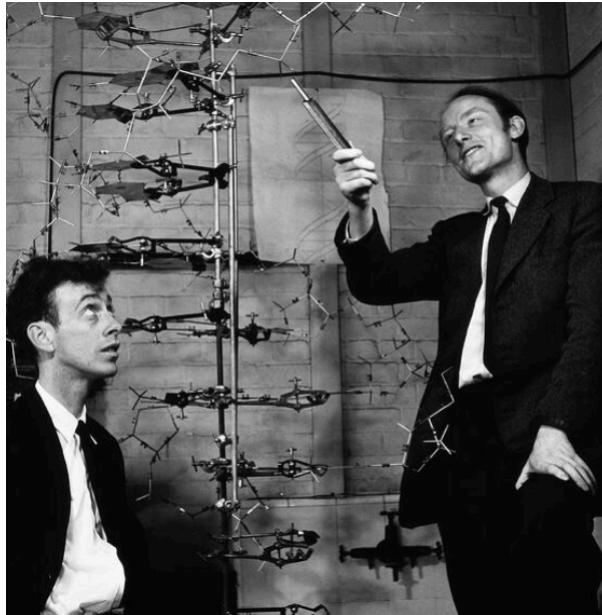


# LAB: Making a DNA Model

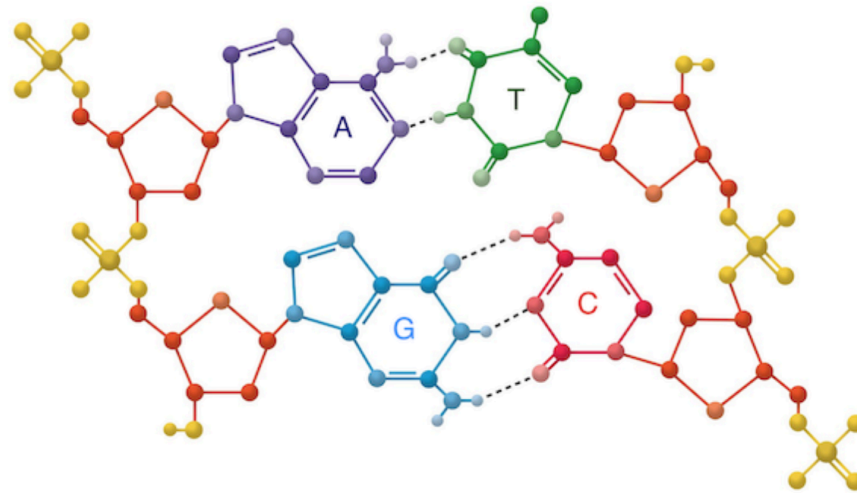
*Using Large Paper clips as Sugar, Small as Phosphates and 4 colored Pipe Cleaners as the 4 Nitrogen Bases A, T, C, and G*

## INTRODUCTION:

[The Double Helix](#) Jim Watson Interview

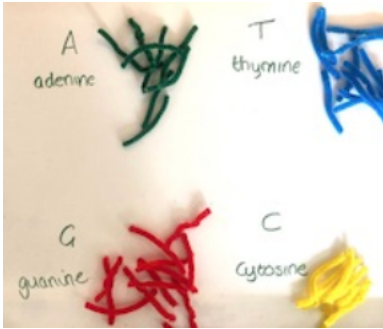


- small paper clips are the phosphates
- large paper clips are the sugar deoxyribose.
- the pipe cleaners are the bases
- adenine with thymine
- cytosine with guanine



## Methods

- Divide the paper clips into two groups –
- small paper clips for the phosphates
- large paper clips for the sugar deoxyribose.
- Connect the phosphate and sugar paper clips in an alternating pattern until you have created a single chain consisting of 6 phosphates and 6 sugars.
- You should have a phosphate paper clip on both ends of the chain.
- Repeat this process until you have two phosphate-sugar chains.
- Lay the two chains beside each other on your work surface and measure the length of one of them.
- Attach a pipe cleaner to the sugar of the paper clips and another to the other strand. This will be your nucleotide pair.



- Continue to add nucleotide pairs to the sugars on that chain until you attach all of them.
- Lay the foam blocks at either end of the assembled DNA ladder.
- Press the paper clip legs into the center of the foam block to secure the ladder into the foam. Make sure you separate the individual legs of the DNA model so the nucleotide pairs pull taut.