







Create DNA model with candy



Marshmallow bases:

Sugar/phosphate backbone

- Guanine (G) = Green 
- Cytosine (C) = Pink 
- Adenine (A) = Yellow 
- Thymine (T) = Orange 



Create **one DNA strand** by attaching the marshmallows to one Twizzler

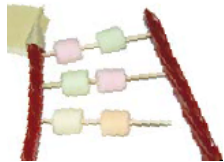
- a. Place toothpicks into the licorice
- b. Push a marshmallow through each toothpick close to the licorice, leaving enough room for the second matching DNA strand
- c. For the adventurous... create the following DNA strand:

T A C G T A T G A A C

Add the matching base pairs. Place a second marshmallow onto the end of the toothpick.

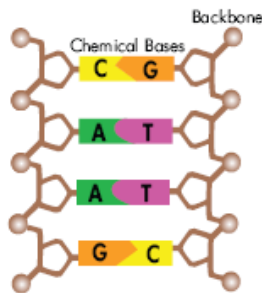
For the adventurous... Match the chemical base pairs. Remember:

- A (yellow) always pairs with T (orange)
- C (pink) always pairs with G (green)



Complete your DNA model. Attach the other backbone (Twizzler) so your model looks like a ladder.

Carefully **twist your DNA model** so that it looks like a double helix.



Textbook view of DNA

Background

The structure of the DNA molecule is the same in all living things. When isolated from a cell and stretched out, DNA looks like a twisted ladder (double helix). The sides of the DNA ladder are called the backbone and the rungs of the ladder are pairs of small chemicals called bases.

There are 4 types of chemical bases in DNA: Adenine (A), Cytosine (C), Guanine (G), and Thymine (T). Each DNA base only binds to its specific partner:

- A & T
- C & G