

# Lab: DNA Candy

Purpose: Make a DNA model

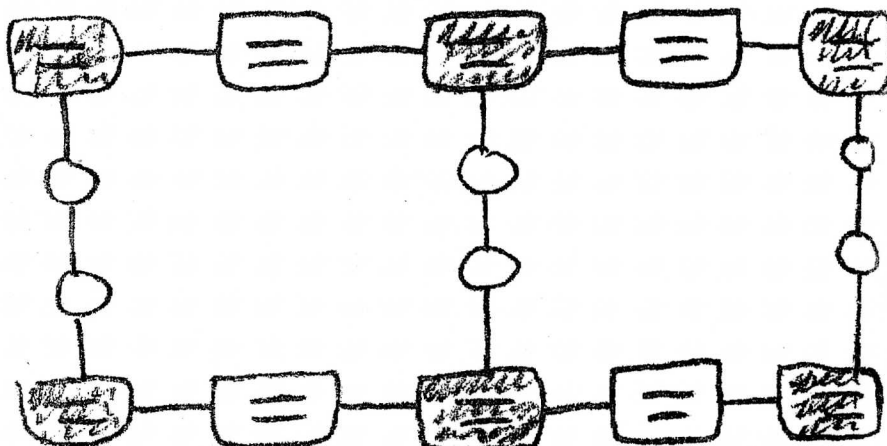
Procedure:

- 1) Assign one base to one of each four colors: ex. Red = Adenine Green = Guanine  
Blue = Thymine Yellow = Cytosine
- 2) Materials:
  - 10 pieces of red licorice
  - 12 pieces of black licorice
  - 3 pieces of each color marshmallow (4 colors total)
  - 19 toothpicks – break them in half
- 3) Use the TOOTHPICKS to connect ONE BLACK to ONE RED licorice piece. Then add ONE marshmallow perpendicular to the BLACK licorice.  
(Refer to Figure 1 below)
- 4) Assemble a strand that is 6 BLACK pieces long. The FIRST and LAST piece of licorice on your chain should be BLACK. (Refer to Figure 2 below)
- 5) Construct a complementary strand opposite the one you just created. Make sure bases match correctly!
- 6) Connect the base pairs (marshmallows) in the middle with a toothpick
- 7) Draw a picture of your DNA model (be sure to use color pencils and label the different parts)

Figure 1



Figure 2



Postlab Questions:

- 1) What did the red licorice represent in the model?
- 2) What did the black licorice represent in the model?
- 3) What did the toothpicks represent in the model?
- 4) What did the marshmallow represent?
- 5) What common household item does this DNA model remind you of?
- 6) Actual DNA is twisted in the shape of a \_\_\_\_\_.