**Candy DNA and RNA Transcription Activity**

**Purpose**: To show the basic structure of DNA and the process of RNA Transcription

1. Assign a colour of gummy bear to each nitrogen base:

Adenine= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Thymine= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Uracil= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cytosine= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Guanine= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What do the red Twizzler’s represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What do the black Twizzler’s represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DNA Construction**

1. Choose six nitrogen bases to be on your LEADING STRAND of your DNA.
2. Match the bases that will be in your LAGGING STRAND.

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Completion Check:

1. Build your DNA using the candy

**Translation**

1. “Unzip” your DNA into the two strands.
2. Make the RNA copy of the DNA by building a your RNA to match and fit onto the Leading Strand of DNA.

LEADING STRAND of DNA MATCHING RNA

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Completion Check:

**Follow Up Questions**

1. What is the function of DNA?

For each of the following sequences, fill in either the DNA or the mRNA sequence that has been left blank.

1. DNA \_\_\_

mRNA A U G A C U A G C U G G G G G U A U U A C U

2. DNA T A C C G C T C C G C C G T C G A C A A T A C C

 mRNA \_

1. What are two differences between RNA and DNA?
2. Where is DNA found in the cell?
3. Where does RNA travel in the cell?
4. What are the steps of transcription?