

Replication and Protein Synthesis

NAME _____

A. Go to: <http://www.pbs.org/wgbh/aso/tryit/dna/shockwave.html>

Click: "DNA replication" (upper left) and then click "unzip". Read the script, answer the questions below, and then, click "OK".

1. In a real cell, what does the DNA molecule do before it unzips?
2. What molecules break the rungs (bases) apart?

Drag the correct bases over to "synthesize" the new DNA halves. Read script, answer questions, and then click "OK".

3. How many base pairs are in the real human genome?

Click "protein synthesis" (upper right). Click "upzip".

4. How much of the DNA molecule actually unzips in a real cell?

Base pair the nucleotides for just one half of the DNA. Read the script, answer the questions, and click "OK".

5. About how many bases would a real mRNA molecule have?
6. Where does the mRNA go now?

Match the tRNA molecules to their base pair nucleotides on the mRNA. Answer the questions.

7. Which molecule has the codons?
8. Which molecule has the anticodons?