

You will be completing a computer simulation for DNA replication.

Go to this website [http://nobelprize.org/educational\\_games/medicine/dna\\_double\\_helix/](http://nobelprize.org/educational_games/medicine/dna_double_helix/)

Click on **Play the DNA**

Read through the tutorial

Click on **organism 1**.....

### ROUND 1

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Click **yes, start copying DNA** ..... be ready you will have to start putting the proper nitrogen bases together immediately!!!

When your finished it will tell you how many mutations you had for round 1.....list this on the back of the worksheet as well as what side had the mutations, right or left.

**\*\*What organism did the first DNA belong to? Match the information under “Number of” to what it says in the box when you click on the organism.** Write it on the back.

Write the final score after round 1 on the back

### ROUND 2

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Click yes, start copying DNA ..... be ready you will have to start putting the proper nitrogen bases together immediately!!!

When your finished it will tell you how many mutations you had for round 2.....list this on the back of the worksheet as well as what side had the mutations.

**\*\*What organism in round 2 did the DNA belong to? Match the information under “Number of” to what it says in the box when you click on the organism.** Write it on the back.

Write the final score after round 2 on the back

### ROUND 3

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Click yes, start copying DNA. Be ready you will have to start putting the proper nitrogen bases together immediately!!!

When your finished it will tell you how many mutations you had for round 3.....list this on the back of the worksheet as well as what side had the mutations.

**\*\*What organism in round 3 did the DNA belong to? Match the information under “Number of” to what it says in the box when you click on the organism.** Write it on the back. Write the final score on the back.

## ROUND 1

# of mutations on left side \_\_\_\_\_ # of mutations on right side \_\_\_\_\_

Organism's DNA was from \_\_\_\_\_ (look at directions on the front page at the \*\*)

**Total Score after ROUND 1** \_\_\_\_\_

## ROUND 2

# of mutations on left side \_\_\_\_\_ # of mutations on right side \_\_\_\_\_

Organism's DNA was from \_\_\_\_\_

**Total Score after ROUND 2** \_\_\_\_\_

## ROUND 3

# of mutations on left side \_\_\_\_\_ # of mutations on right side \_\_\_\_\_

Organism's DNA was from \_\_\_\_\_

**Total Score after ROUND 3** \_\_\_\_\_

## Questions

1. What does the screen do after it shows the number of mutations? Why?
2. What letter was present that you don't use?
3. Does the number of chromosomes directly relate to the complexity of an organism (ex. More chromosomes = more complex)? Go to wikipedia and type this in without the quotation marks "List of number of chromosomes of various organisms"

Explain.