

Name_____

Period_____

What is DNA?

Nucleic Acid -

DNA -

Two major roles:

1.

2.

Genes -

Composition of DNA:

DNA is made of four bases:

1.

2.

3.

4.

When in the DNA structure

_____ ALWAYS pairs with _____

and _____ ALWAYS pairs with _____

They fit together like pieces of a _____ .

Adenine	Pairs with	
Represented by a _____ gummy bear		Represented by a _____ gummy bear
Guanine	Pairs with	
Represented by a _____ gummy bear		Represented by a _____ gummy bear

Making a model of DNA:

Scientists make models of DNA to help them visualize what DNA looks like.

You can do this, too:

1. Use two long pieces of red vines for the side rails of the ladder model of DNA.
2. To make the steps of the ladder, use four different colors of gummy bears for the bases.
3. Use toothpicks to connect the bases to each other and to the red vines.
4. When you've assembled your model, carefully twist it a little to visualize how the DNA molecule spirals.

Conclude/Apply:

1. Draw a sketch using the letters of each base to show your arrangement of bases.
2. How many gummy bears (bases) form each step of the ladder?
3. What do your four colors of gummy bears represent?
4. Can base A form a step with base C? Explain why or why not.
5. Explain how chromosomes and DNA are related. Describe where in the body they are found.
6. How are genes related to the structure of DNA?