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DNA Structure and Organization

Log on to the following website: <http://gslc.genetics.utah.edu/>

Click on the link for Basics and Beyond. Begin with a Tour of the Basics. Navigate through the animated video clips, starting with "What is DNA?" You should also watch "What is a Gene?" and "What is a Chromosome?" As you go through the clips answer the questions below:

What is DNA?

1. What does DNA stand for? _____

2. How does the website describe the shape of the DNA? _____

3. What letters are used to describe the rungs of the ladder? _____

4. Which letters pair together in the DNA ladder? _____ pairs with _____

_____ pairs with _____

5. What do the letters stand for?

6. How do the four letters tell the cell what to do?

What is a Gene?

7. Approximately how many genes are found in a cell? _____

8. What do genes contain instructions for? _____

9. Give three examples of what proteins do in the body

What is a Chromosome?

10. What is the DNA wrapped around to form a chromosome? _____

11. How can you tell a female 's chromosome from a male's ? _____

12. How many chromosomes does each organism have?

Onion: _____

Mosquito: _____

Human: _____

Carp: _____

Hit the Back button on the web browser. Click on the link for [Build a DNA Molecule](#).

Build a DNA Molecule

Build a DNA molecule by matching the base pairs. Sketch your DNA molecule in the space below.

Challenge: Transcribe and Translate a Gene (use lined paper)

Build a protein, identify the amino acids in your protein, and then briefly describe the process in simple terms.