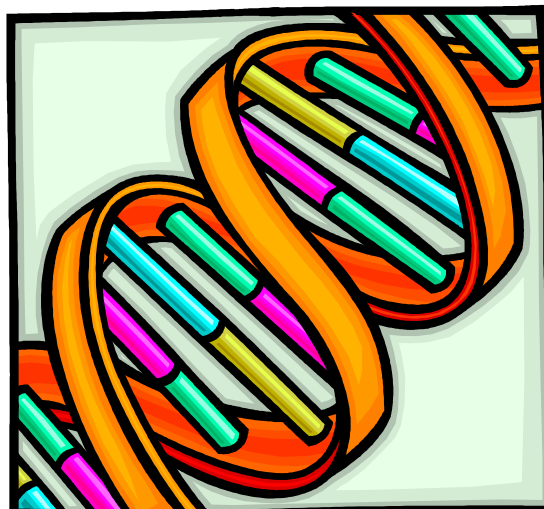


Web Quest Electronic Handout

This exercise will introduce you to DNA and blood types. Answer the questions below using the provided web sites. After you complete this web quest, we will conduct a lab in which we perform DNA extraction.



http://www.eurekascience.com/ICanDoThat/dna_intro.htm

<http://gslc.genetics.utah.edu/units/basics/builddna/>

Using your knowledge about the structure of DNA, build a DNA molecule in this section.

<http://gslc.genetics.utah.edu/units/basics/blood/>

Investigate the following sections:

What is blood?

What are blood types?

<http://gslc.genetics.utah.edu/features/forensics/>

Follow one of the links below to see how DNA profiling is used in situations that do not involve crime.

<http://www.cnn.com/ALLPOLITICS/1998/07/10/lassie/>

Read about how a soldier from the tomb of the unknowns was returned to his family.

<http://www.cnn.com/2000/NATURE/03/21/bear.tracking.en/index.html>

Read how DNA is being used to follow grizzly bears.

Web Quest Questions

4. What is a genes job?
5. What are the small "pieces" that make a gene?
6. What are the four types of nucleotides?
4. Which nucleotides join to form base pairs?
5. What has to happen in order for DNA to make a copy of itself?
6. How many chromosomes are created when DNA replicates?
7. Draw a picture of the DNA molecule you built (from the second web site).
8. What are the components of blood?
9. What is an important job of plasma?
10. Red blood cells transport which two chemicals in our bodies?
11. What do white blood cells make that fights infections?
12. What are the four types of blood?
13. How much DNA is unique to an individual?
14. What steps are taken to make sure a DNA sample that is collected from a crime scene is not contaminated?
15. What is used to cut DNA into small segments in order for it to be analyzed?
16. Explain how DNA can be used to solve problems that do not involve crimes.

