

Forensic Science Unit Study

DIRECTIONS

As you are leanring this week, DNA is shaped like a ladder, twisted into a spiral (ofter described as a double helix). There are two long strands connected by short links.

DNA is composed of four bases, or chemicals. Imagine the twisted ladder made of four unique materials: metal, wood, plastic, and stone. In DNA, these four materials are called **adenine (A)**, **thymine (T)**, **guanine (G)**, and **cytosine (C)**.



Even though every strand is made of the same four base chemicals, it is the pattern of these chemicals that creates a unique genetic identity.

In DNA, base A joins only with base T, and base G joins only with base C.

When making your beaded bracelet, complete the following steps:

- 1. Choose which creature's DNA you would like to make a bracelet with (see following page human, opossum, chicken, rabbit, frog, or mouse).
- 2. Make one strand of bracelet with color beads that follow the sequence of bases provided on the following page.
- 3. Tie off the bracelet and begin a new strand.
- 4. This strand will have a sequence that matches the first strand, but with joining bases (replace every T with A and A with T, and replace every G with C and C with G).
- 5. Tie off that strand, too, then combine both strands at either end by tying the ends together.
- 6. Here is an example of what the finish product for a Human DNA bracelet would look like:

HUMAN RABBIT MOUSE FROG