



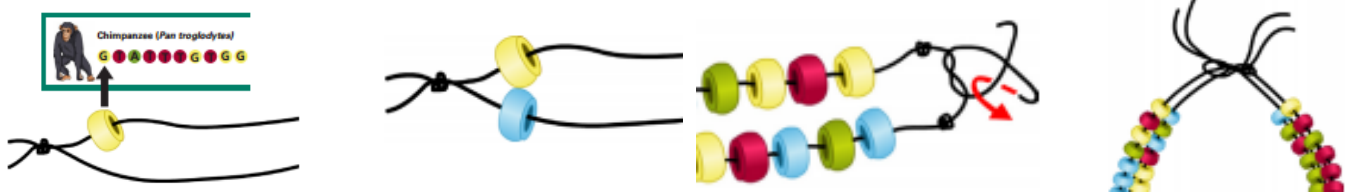
DNA Code Bracelet

Supplies:

1. 2 pieces of elastic string (~12" each)
2. Pony Beads in 4 different colors
3. [DNA Sequence Information Sheet](#)
4. [DNA Pairing Rules Sheet](#)
5. [DNA Sequence Cards](#)

Directions:

1. Choose the DNA Sequence Card for the sequence you would like to make.
2. Tie a knot at the end of each string, and then tie the two knots together, so you have one bracelet, with two strings.
3. Look at the first letter in your sequence, and find the right color bead to match.
4. Thread the bead on one side of your bracelet.
5. Using the DNA Pairing Rules, figure out what letter and corresponding bead color should be on the other string. (So if you started to build the Human sequence you would put a Red bead for the T on one string. On the other string you would thread a Green bead for the A, as A and T are DNA pairs.)
6. Keep threading beads according to the sequence, until you have finished the entire sequence on your card.
7. Now tie the end of each string off with a knot, and tie the two knots together to secure.
8. You can now tie the two ends together to finish your bracelet.
9. You can learn a little bit about your sequence on the DNA Sequence information sheet. What does your DNA sequence do?



Why does it work?

DNA contains a chemical code that is made up of four bases: adenine, cytosine, guanine and thymine (A, C, G and T for short). These bases always pair together in the same way, A with T, and C with G. This code guides the growth, development and health of organisms.

****Rosalind Franklin, who earned her PhD in chemistry in 1945, was the female responsible for “photo 51” in 1952. This x-ray image is what allowed Watson and Crick the discovery of the Double-Helix structure of DNA. Unfortunately the prestige of Franklin’s work was not celebrated while she was alive. Watson and Crick received a Noble prize in 1962. Rosalind had passed away in 1958 from ovarian cancer.****