

# DNA Bracelet

**Objective:** Every living thing is composed of cells. Construct a 3-D model of a DNA Helix and investigate how are cells make look like we do.

**Illinois Learning Standards: Assessment Frameworks:**

**Suggested Reading:**

Illinois Ag in the Classroom's Biotechnology Ag Mag available online at <http://www.agintheclassroom.org>

**Materials Needed:**

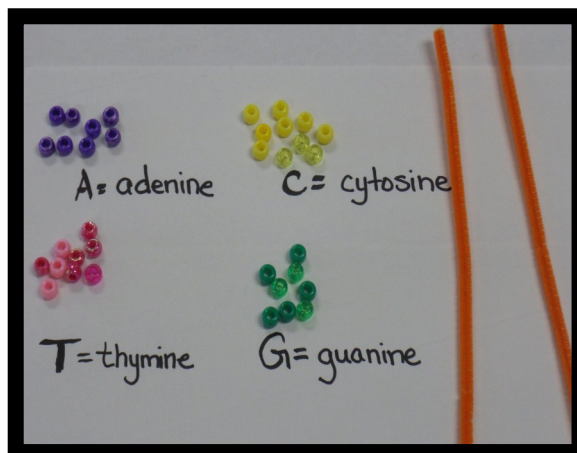
Pony Beads in the following colors: Purple, Yellow, Green and Pink

Chenille sticks or bracelet string from a craft store.



**Directions:**

1. Choose one DNA code from the chart provided by your teacher. You will need this chart to follow the DNA pattern to make your bracelet.
2. Thread a bead onto your first Chenille stick. Then on the second Chenille stick thread the matching bead. Use the guide below to help. Example would be if your first bead on the first Chenille stick is Pink (**T**) then on your second Chenille stick the bead would be Green (**A**), because T always pairs with A.
3. Finish out both sides of your DNA strands following the pattern provided by your teacher.
4. Once all your beads have been placed on their Chenille sticks twist them into the form of a Helix (sometimes referred to as the DNA ladder)
5. Tie the Chenille sticks together to form a bracelet to fit your wrist. See if your friends can figure out what plant or animal you are based on your DNA.



## **Monarch Butterfly (Danaus Plexippus)**

gaggctaccaagtttccgatctgcaggagatgcattgaaagatcgtttcg

## **Grizzly Bear (Ursus Arctos)**

atgaccaacatccgaaaaaccacccattagctaaaatcatcactacte

## **Sunflower (Helianthus Annuus)**

tgagatgctagaaggtgcaaaatcaatagggcccggagctgctacaattg

## **Chimpanzee (Pan Troglodytes)**

tgaccccgacacgcaaaattaaccactaataaaattaattaatcactca

## **Human (Homo Sapiens)**

tgacccaatacgc aaaattaaccccctaataaaattaattaaccgctca

## **African Elephant (Loxodonta Africana)**

atcaccgacattcgaaaatctcatccttactcaaaatgatgaataaatc

## **Apple Tree (Malus Domestica)**

gaattcggcacgagaagaaacgaagagagagagagagagagag-  
caaaaatggtt

## **Red Flour Beetle (Tribolium Castaneum)**

cacaacctcggggatcgccttcgccatcctctgctggccgagaatcca

## **Brown Trout (Salmo Trutta)**

cttggctcactcttaggcttgtgtctagccacccaaatcttaccggac



## **Human Heart**

gttgctggtacaatctcataaaatcgggctccagtgttttagagaaggacag