MAKE A BRACELET WITH DNA CODE!

Activity takes approximately 30 minutes. **Recommended for** 10+ years old

Did you know?

Everything that is alive has DNA in its cells. DNA is a tiny chain with a special code that makes you, YOU! Your DNA code determines what you and your family look like.

DNA code is very simple. It only has 4 letters: A, C, G and T.

In your body, these letters of DNA code sit in groups of 3, such as ACG, GGG or CAA.

Every group of 3 letters is a signal for your body to use an amino acid, which is a building block of your body. So the DNA is the code for who you are and the amino acids turn that code into building blocks.

We're going to make a bead bracelet of our name!

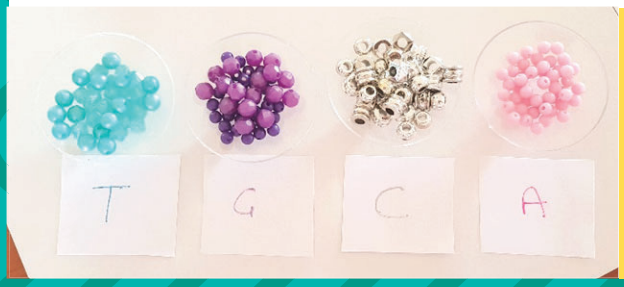
Step 1: Gather your bracelet items.

You will need:

- String
- 4 types of beads
- Pen or marker

Instructions:

Give each of the 4 types of beads one of the DNA letters: A, C, G, and T.



SAFETY TIP:

Avoid having beads around kids under 3 years old, because beads can be a choking hazard.

Step 2: Work out your name in DNA.

Each letter of your name can represent an amino acid, which has a 3 letter code.

Letter in your name	DNA Code
A	GCT
B	GCA
C	TGC
D	GAT
E	GAG
F	TTT
G	GGG
H	CAT
I	ATA

Letter in your name	DNA Code
J	ATC
K	AAG
L	CTC
M	ATG
N	GAC
O	GAT
P	CCC
Q	GAG
R	CGT

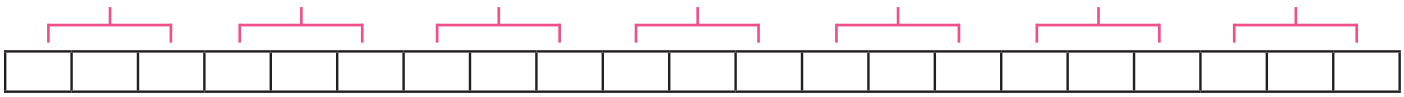
Letter in your name	DNA Code
S	TCA
T	ACT
U	ACG
V	GTC
W	TGG
X	GTA
Y	TAC
Z	TAT

Write down your name below.

Your name – one letter per box:

For each letter in your name, write down the 3 letters of the DNA code using the alphabet table above.

Your name in DNA code:



An example using the name Sam:

S			A			M														
T	C	A	G	C	T	A	T	G												

Advanced science - how did we match each letter to a DNA code?

There are only 20 amino acids in our genetic code. We have assigned each letter of the alphabet an amino acid. For example, A can stand for Alanine which has the code GCT. P can stand for Proline, which has the code CCC.

Step 3: Use the beads to spell out your DNA code!

Place the beads on the string in the order that you worked out in Step 2.

Here is the name Sam in beads:

S A M

When you have finished putting your beads on the string, tie up the ends of your bracelet. Show your friends and family your name in DNA code!

This bead bracelet has the DNA code for Telethon!

The DNA in humans is 99.9% identical. At Telethon Kids we study the remaining 0.1% of DNA to find out more about the differences between humans.