

What does DNA look like? Make a model out of two strips of paper.

DNA has the instructions for running a living thing.

A G T C

four letters:

It is like a book, written with only

?

N

D

What is

Junior Girl Scout Detective Badge

The ABCs of DNA

Dr. Joseph Ross

California State University, Fresno

Based on an activity developed by the Cal Poly Learn by Doing Lab



Time to take DNA out of a fruit!

thing with DNA:

Write down the name of a living

DNA is in every living organism.

Where can you find DNA?

But, when we look at lots of pieces of DNA all at once, it is something we can observe.



How big is DNA? A single piece of DNA is too small to see, even with a microscope.



Crime Scene DNA

Name one thing a burglar might do to keep from being identified:

What sorts of information can police use to identify a criminal?

What can police find that might have the DNA of a criminal?

Forensics

The police can take DNA found at crime scenes and then read the DNA letters. Pretend you're a policewoman and you find that DNA from a crime scene hair sample has a C in the bitter taste instructions. Circle the suspect(s) below who could be the criminal.



The language of DNA DNA, the recipe book of life, is written only using the letters A, C, G, and T. Can you think of a word you write using only these four letters?

Cells use a different language (a code), and our DNA contains many, many words and instructions written using only A, C, G, and T.

Everybody's DNA is different, which is one reason we are all unique!

out!

Some people are Tasters; some are Non-Tasters. Which are you? Let's find

Which DNA letter has to be present in the instructions for our bitter flavor sensor for us to taste bitter things?

yUTk or yuCK

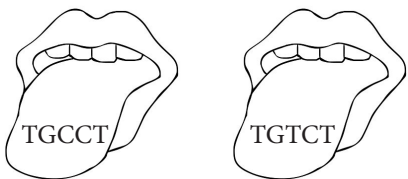
(er); the other cannot (Non-taster).

There are two versions of this structure: one that can sense bitter flavors (a Taster)

Part of our DNA has the instructions for building a structure on our tongues that helps us taste bitter foods.

DNA and You

Circle the taster tongue:



Place a taste strip on your tongue.

Are you a:  
Taster? Non-Taster?

Which letter does your DNA have in your bitter taste instructions? T or C? Fill in the blank:

AGTG\_\_\_\_CTGC