

DNA CODED FRIENDSHIP BRACELETS

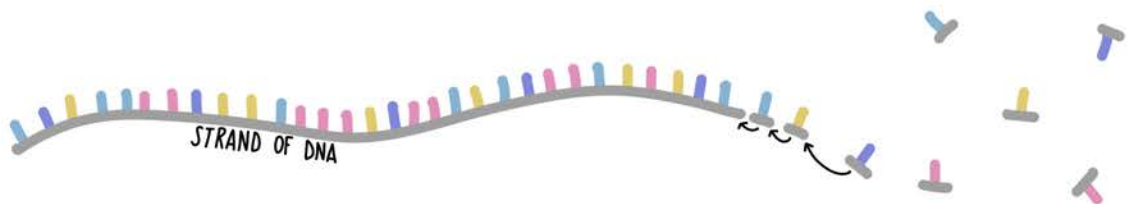
DNA is a set of instructions for all our cells. It is a very long molecule.



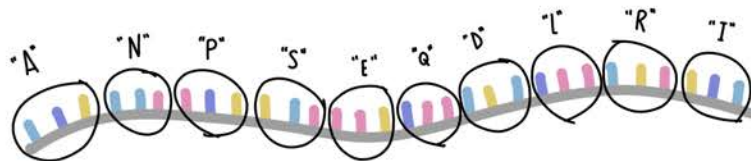
DNA is made of only four different pieces, called nucleotides.



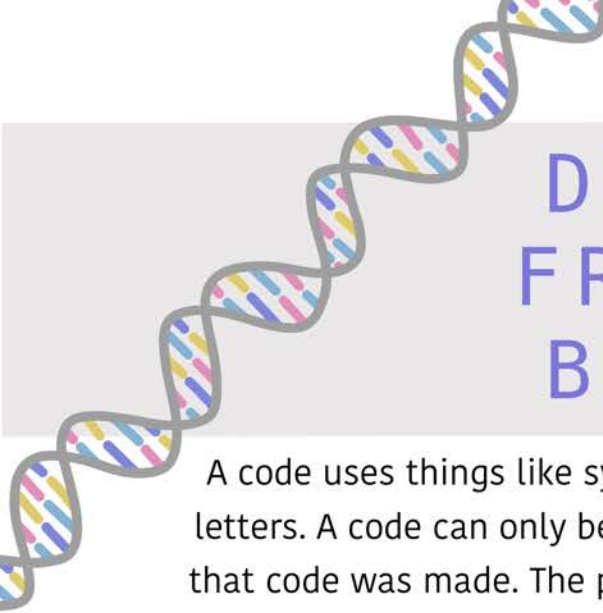
Millions of these nucleotides connect in a chain to form a strand of DNA.



Each group of three nucleotides is a code for other molecules that make and become your body. This is called the genetic code.



In this activity, you will be making a twisting coded bracelet, inspired by the twisting coded molecule of DNA!



DNA CODED FRIENDSHIP BRACELETS

A code uses things like symbols, colors, or words to represent other words or letters. A code can only be read if someone has the information revealing how that code was made. The process of turning a code back into something that is readable is called decoding.

In this activity, you will use colors of embroidery floss to send a coded message by making a bracelet (or necklace or keychain!). Just like DNA uses groups of nucleotides to represent a specific building block for your cells, you will use groups of colors to represent a letter in your message!

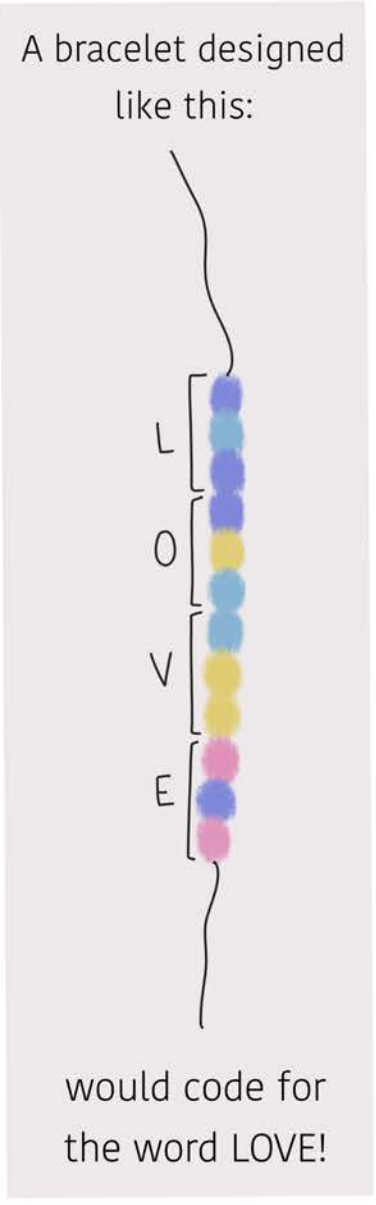
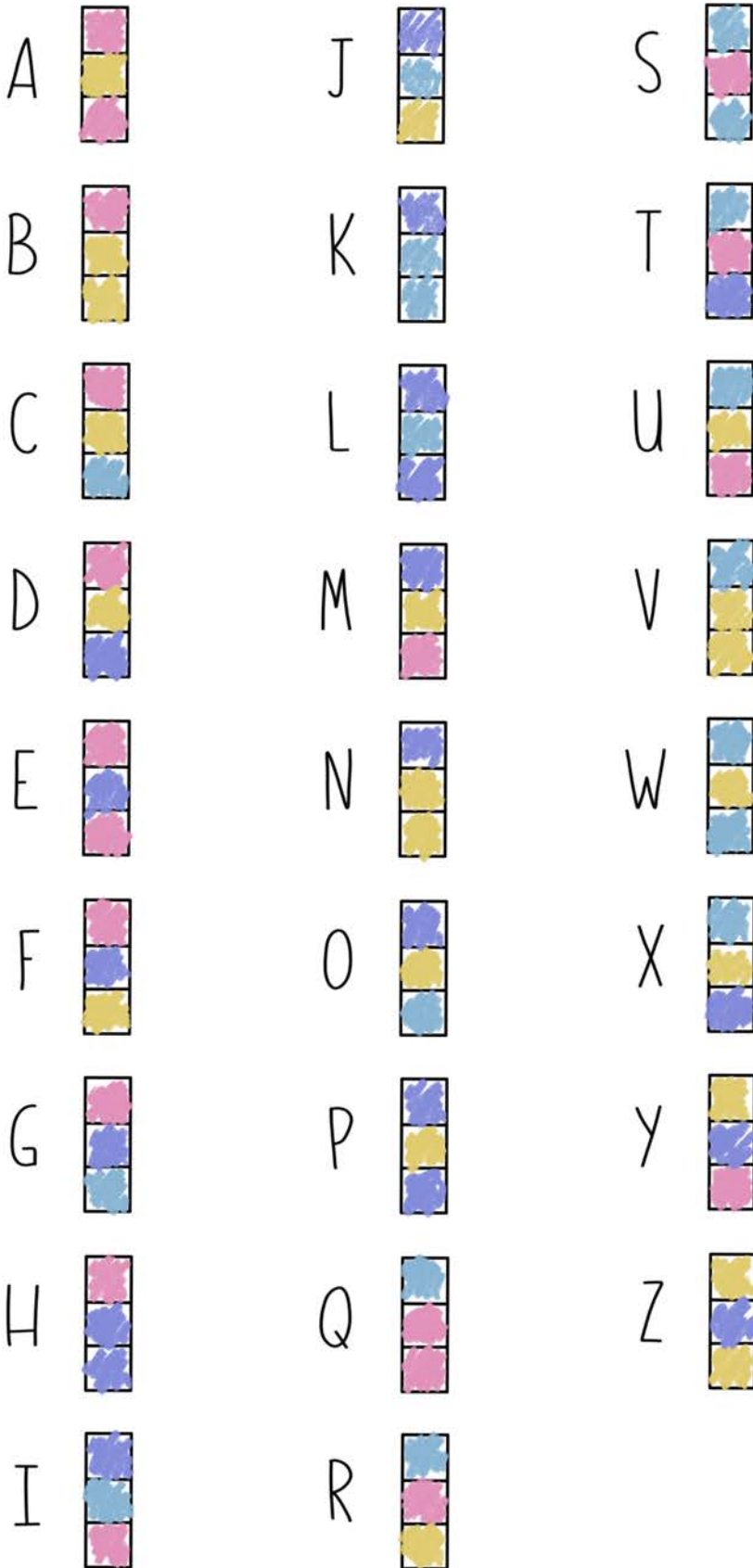
Materials:

- Four colors of embroidery floss
- Clipboard
- Colored pencils

Instructions:

1. Check out the sample Alphabet Color Code on page 3. Notice how each letter of the alphabet has a different three-color code.
2. Go to page 4 for a blank color code where you can create your own code, depending on what four floss colors you want to use. Be sure to use a different color code for each letter. Fill out your Alphabet Color Code.
3. Choose a word or simple phrase that you want to code into your bracelet. (See page 5 as an example.) Use page 6 as a worksheet to plan your own bracelet code.
 - a) Write your message vertically under “Your Message.”
 - b) Use your Alphabet Color Code sheet to transfer the color codes for each letter.
4. Gather about 2 ft of each color embroidery floss and knot them together at one end.
5. Clip page 6 to a clipboard, then clip your floss strands to the clipboard, placing the knot on the X.
6. Follow the bracelet making directions on the page to create your bracelet code! Tie it off when you’re done.
7. Send the bracelet to a friend if you’d like, but be sure to print out your Alphabet Color Code for them so they can decode it!
8. Repeat steps 3-7 for more bracelets!

Here is a **Sample Alphabet Color Code**
that would use pink, blue, purple, and yellow floss.



Alphabet Color Code

A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	J	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	S	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
B	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	K	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	T	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	L	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	U	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
D	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	M	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	V	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
E	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	N	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	W	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
F	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	O	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	X	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
G	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	P	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Y	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
H	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Q	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Z	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	R	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Example Code Bracelet Worksheet

YOUR MESSAGE

LETTER COLOR CODE

S

M

I

L

E

|

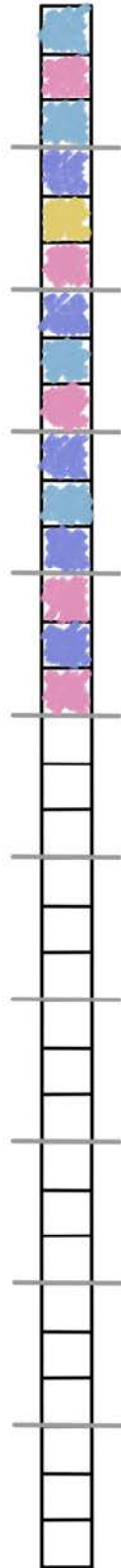
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STEPS TO MAKE CODED BRACELET

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1. Pick the color that matches the first color in your coded message.
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2. Cross it over the top of the rest of the strands.
- 

3. Loop it around the back of the group of strands then up over itself.
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4. Tighten the knot so it is snug to the top.
5. Repeat steps 1-4 until you finish the color block.
- 

6. Switch to the next color in your code and repeat steps 1-5.

