

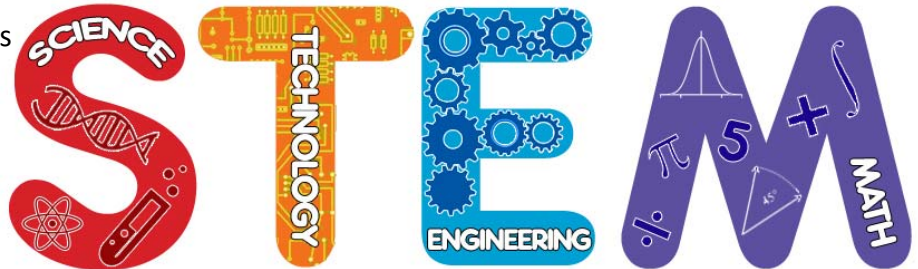
## The Beadery® Binary Jewelry

### Materials Needed:

- 9x6mm Barrel Pony Beads
- Stretch Cord

### Tools Needed:

- Ruler
- Scissors
- Glue



### Background:

No matter how fast or powerful a computer is, if you break it up into its smallest components you will end up with a pile of tiny switches. That is why computers use binary (base-2) to store and work with data. If the switch is turned on, it is represented by a 1. If the switch is turned off, it is a 0. However, people don't think this way, so standard codes have been created for the computer to translate back into a human readable format. One of these codes is called the American Standard Code for Information Interchange or *ASCII* for short and the binary equivalents for capital letters is listed in the table below.

Letter	Binary
A	0100 0001
B	0100 0010
C	0100 0011
D	0100 0100
E	0100 0101
F	0100 0110
G	0100 0111
H	0100 1000
I	0100 1001
J	0100 1010
K	0100 1011
L	0100 1100
M	0100 1101

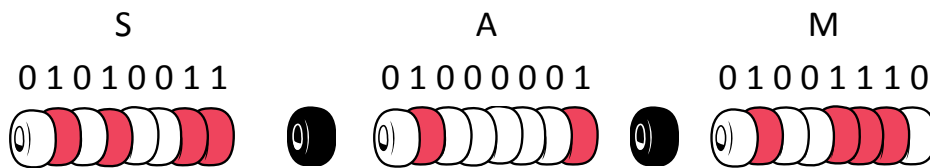
Letter	Binary
N	0100 1110
O	0100 1111
P	0101 0000
Q	0101 0001
R	0101 0010
S	0101 0011
T	0101 0100
U	0101 0101
V	0101 0110
W	0101 0111
X	0101 1000
Y	0101 1001
Z	0101 1010

**Instructions:**

1. Use the ASCII code table above to write your name (for a necklace) or initials (for a bracelet) in binary. For example:

Letter:            S                    A                    M  
 Binary: 0101 0011    0100 0001    0100 1110

2. Use the binary numbers to order your beads for your design. Use one color bead for 0's, a second color for 1's and a third color for the spaces between letters.



3. Cut a piece of stretch cord – approximately 14” (35.6 cm) for a bracelet or 22” (55.9 cm) for a necklace. This may need to be longer if the name is long.



4. String your beads in order onto the cord to create your necklace or bracelet.



5. If the bracelet or necklace is too short, you can string extra spacer beads onto the end to make it the right length.



6. Tie the ends of the cord together and apply a drop of glue to the knot to secure the beads. Trim off extra cord to complete your binary jewelry.

