

MARGARET HAMILTON

Code a Keychain

Use computer language, 'binary code' to create a beaded keychain using the word 'KEYS'.

STEP 1: Print the binary code info sheet.

STEP 2: Place the beads onto the sheet in the pattern shown on the paper.

STEP 3: String the beads for each letter onto a string. Make the strings about 8-10 inches long.

STEP 4: Wrap the string around the key ring and then thread it back through the beads.

STEP 5: Repeat for each letter so you have 4 sets of beads around the ring.

STEP 6: Gather all of the string ends together and tie into one big knot.

WHAT IS BINARY CODE?

Binary code is how computers talk and represent information. Letters, numbers, and pictures.... basically everything you see on the computer is made up of different combinations of 0's and 1's.

Imagine trying to use words to describe every scene in a film, every note in a song, or every street in your town. Now imagine trying to do it using only the numbers 1 and 0. Every time you use the Internet to watch a movie, listen to music, or check directions, that's exactly what your device is doing, using the language of binary code.

SUPPLIES

Binary printable
Red and blue beads
(or any two colors)

String
Scissors
Key ring

CODE A KEYCHAIN

A	■ □ ■ ■ ■	■ ■ ■ ■ □	N	■ □ ■ ■ ■	□ □ □ ■ ■
B	■ □ ■ ■ ■	■ ■ ■ □ ■	O	■ □ ■ ■ ■	□ □ □ □ □
C	■ □ ■ ■ ■	■ ■ ■ □ □	P	■ □ ■ ■ □	■ ■ ■ ■ ■
D	■ □ ■ ■ ■	■ □ ■ ■ ■	Q	■ □ ■ ■ □	■ ■ ■ ■ □
E	■ □ ■ ■ ■	■ □ ■ ■ □	R	■ □ ■ ■ □	■ ■ ■ □ ■
F	■ □ ■ ■ ■	■ □ □ □ ■	S	■ □ ■ ■ □	■ ■ ■ □ □
G	■ □ ■ ■ ■	■ □ □ □ □	T	■ □ ■ ■ □	■ □ ■ ■ ■
H	■ □ ■ ■ ■	□ ■ ■ ■ ■	U	■ □ ■ ■ □	■ □ ■ ■ □
I	■ □ ■ ■ ■	□ ■ ■ ■ □	V	■ □ ■ ■ □	■ □ □ □ ■
J	■ □ ■ ■ ■	□ ■ ■ □ ■	W	■ □ ■ ■ □	■ □ □ □ □
K	■ □ ■ ■ ■	□ ■ ■ □ □	X	■ □ ■ ■ □	□ ■ ■ ■ ■
L	■ □ ■ ■ ■	□ □ ■ ■ ■	Y	■ □ ■ ■ □	□ ■ ■ ■ □
M	■ □ ■ ■ ■	□ □ ■ ■ □	Z	■ □ ■ ■ □	□ ■ ■ □ ■

■ RED BEAD

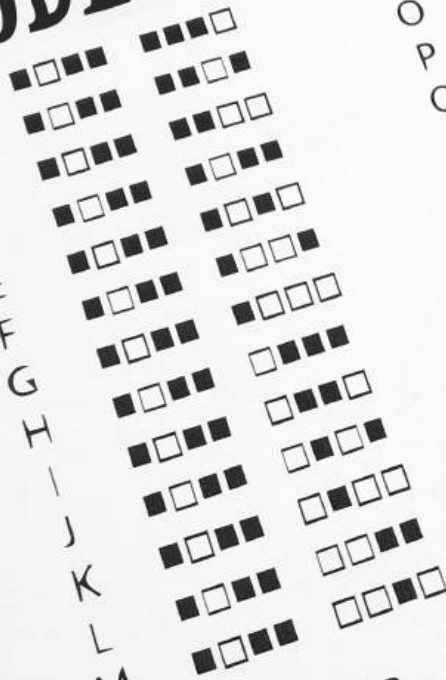
□ BLUE BEAD

Place the appropriate bead in each circle to spell 'keys'.

K	○ ○ ○ ○	○ ○ ○ ○
E	○ ○ ○ ○	○ ○ ○ ○
Y	○ ○ ○ ○	○ ○ ○ ○
S	○ ○ ○ ○	○ ○ ○ ○

CODE A KEYCHAIN

A
B
C
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M



N
O
P
Q
R
S
T
U
V
W
X
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Z



RED BEAD

Place the appropriate bead in each circle to spell 'keys'.

K

E

Y

S



BLUE BEAD

www.littlebinsforlittlehands.com



CODE A KEYCHAIN

A	■□■	■□■	N	■□■	□□■
B	■□■	■□■	O	■□■	□□□
C	■□■	■□■	P	■□■	■□■
D	■□■	■□■	Q	■□■	■□■
E	■□■	■□■	R	■□■	■□■
F	■□■	■□■	S	■□■	■□■
G	■□■	■□■	T	■□■	■□■
H	■□■	■□■	U	■□■	■□■
I	■□■	■□■	V	■□■	■□■
J	■□■	■□■	W	■□■	■□■
K	■□■	■□■	X	■□■	■□■
L	■□■	■□■	Y	■□■	■□■
M	■□■	■□■	Z	■□■	■□■



RED BEAD



BLUE BEAD

Place the appropriate bead in each circle to spell 'keys'.

K        

E        

Y        

S        

CODE A KEYCHAIN

A	■□■□	■□■□	N	■□■□	□□■□
B	■□■□	■□■□	O	■□■□	□□■□
C	■□■□	■□■□	P	■□■□	■□■□
D	■□■□	■□■□	Q	■□■□	■□■□
E	■□■□	■□■□	R	■□■□	■□■□
F	■□■□	■□■□	S	■□■□	■□■□
G	■□■□	■□■□	T	■□■□	■□■□
H	■□■□	■□■□	U	■□■□	■□■□
I	■□■□	■□■□	V	■□■□	■□■□
J	■□■□	■□■□	W	■□■□	■□■□
K	■□■□	■□■□	X	■□■□	■□■□
L	■□■□	■□■□	Y	■□■□	■□■□
M	■□■□	■□■□	Z	■□■□	■□■□

■ RED BEAD

□ BLUE BEAD

Place the appropriate bead in each circle to spell 'keys'.

K ○○○○○ ○○○○○

E ○○○○○ ○○○○○

Y ○○○○○ ○○○○○

S ○○○○○ ○○○○○

www.littlebinsforlittlehands.com

Keep Exploring STEM

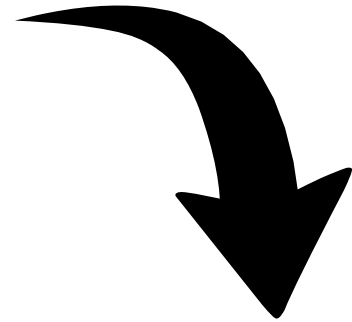
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👉 SCREEN FREE CODING LABS

👉 WOMEN IN STEM



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WELCOME!
Learn about women scientists and have fun with these simple science activities to set up at home or in the classroom. Click each name for links.

MAE JEMISON
Mae Jemison became the first African American woman to travel in space aboard the Space Shuttle Endeavour. Make a space shuttle!

AMELIA EARHART
Amelia Mary Earhart was an American aviation pioneer and author. Earhart was the first female aviator to fly solo across the Atlantic Ocean. Build your own glider!

EVELYN BOYD GRANVILLE
Evelyn Boyd Granville was the second African-American woman to receive a Ph.D. in mathematics from an American University. Let's build a satellite!

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