



Morse Code Bracelet STEM Activity

for *Astrid the Astronaut #1: The Astronomically Grand Plan*
by Rie Neal; illus. by Talitha Shipman

Background

In chapter 5, Ms. Ruiz has Astrid and her friends make Morse code bracelets in *Shooting Stars*. The Astro Mission turns into a huge mess for Astrid and Veejay. But by the end of the book, Astrid figures out a creative way to put this new skill to use—a bracelet with a secret message!

Morse code, invented by Samuel F. B. Morse in the 1830s, is a code made up of dots and dashes. Once widely used to send messages by telegraph, it's mostly only used in emergencies today, by pilots and sailors. But since most people don't know the code anymore, it's perfect for sharing secret messages with friends! In this activity, you'll make a Morse code bracelet—and you'll be able to wear a secret message on your wrist.



Supplies Needed

- an instruction sheet (next page)
- 30 craft beads (10 each of 3 different colors)
- a 10" piece of craft elastic with a bead tied onto it 2" from one end (a star-shaped bead was used in the pictures)
- a tray or dish to hold the beads
- a pencil

Instructions

- (1) Choose your name or a short word (5-6 letters or fewer) to spell on your bracelet. Write it below.

NAME / WORD =



- (2) Next, translate your word into Morse code, using the guide below.

NAME / WORD IN MORSE CODE =

A ● —

B — ● ● ●

C — ● — ●

D — ● ●

E ●

F ● ● — ●

G — — ●

H ● ● ● ●

I ● ●

J ● — — —

K — ● —

L ● — ● ●

M — —

N — ●

O — — —

P ● — — ●

Q — — ● —

R ● — ●

S ● ● ●

T —

U ● ● —

V ● ● ● —

W ● — —

X — ● ● —

Y — ● — —

Z — — ● ●

- (3) Choose one color of beads to represent dots, one for dashes, and one for a filler between letters. Keep track below, then start adding beads to your bracelet.

Dots = _____

Dashes = _____

Fillers = _____

- (4) When your Morse code bracelet is finished, tie the ends together. (For a bonus activity, swap bracelets with a friend and see if you can decipher each other's Morse code messages!)