



HARKINS HAM SHACK

PARENT GUIDE

My Digital World, Level 3



ARIZONA
SCIENCE
CENTER

Never stop wondering.
Never stop imagining.™

HARKINS HAM SHACK

GALLERY INFO

When you visit My Digital World, you will discover modern and past technologies that have helped people communicate near and far. You can build a spacecraft like a space engineer, create a human habitat fit for another planet, and use technology to detect a nebula! Be sure to stop by the Harkins H.A.M. Shack to explore past and present radio technologies, as well as participate in an international community with other amateur radio stations and operators around the world by simply using the radio airwaves—no internet required!

QUESTION GUIDE

- Check out the *Build a Spacecraft* engineering station. Ask your child what tools they would like to equip their spacecraft with. After building, your child can test their spacecraft to see if it can withstand a launch and complete a mission.
- Ask your child what technologies they think they would need in order to survive on Mars. Visit the *Build a Human Habitat on Mars* station to test out their ideas!
- Visit Harkin's H.A.M. Shack with your child and discover how people use radio technologies to send communication across great distances. Using the guide at the counter, ask your child to use Morse code to send their name over the radio!

AT HOME ACTIVITY

Use the attached Morse code guide to create a bracelet with your name on it!

Materials: Black bead, white bead, red bead, pipe cleaners

Use the following beads to represent morse code:

Black Bead: Dash

White Bead: Dot

Red Bead: Space

SEND A SECRET MESSAGE WITH MORSE CODE!

Use the cheat sheet below to help you send a message to your friends and family.

A	• —	1	• — — — —
B	— • • •	2	• • — — —
C	— • — •	3	• • • — —
D	— • •	4	• • • • —
E	•	5	• • • • •
F	• • — •	6	— • • • •
G	— — •	7	— — • • •
H	• • • •	8	— — — • •
I	• •	9	— — — — •
J	• — — —	0	— — — — —
K	— • —		
L	• — • •		
M	— —		
N	— •		
O	— — —		
P	• — — •		
Q	— — • —		
R	• — •		
S	• • •		
T	—		
U	• • —		
V	• • • —		
W	• — —		
X	— • • —		
Y	— • — —		
Z	— — • •		

MORSE CODE TIPS

The length of a dot is one second.

The length of a dash is three seconds.

The space between the parts of the same letter is one second.

The space between letters is three seconds.

The space between words is seven seconds.