

WORKSHOP EXTENSION ACTIVITY

Built by The Home Depot Kids Workshops

August 2024: Whiteboard

Ages 5-12

CONNECT.

Can you think of a time when you told someone something that you did not want anyone else to know? While whispering may be one way to do this, there's always a chance that someone else could overhear!

Have you ever thought about writing messages in code?

INVESTIGATE.

When a message is written in code, it uses a system of letters, words, figures, and/or symbols so that only the person you wrote it for can understand it! The recipient can decipher (or decode) the message because they are given the cipher, which is the code's key.

Check out this encoded message:

25 15 21 3 18 1 3 11 5 4 20 8 5 3 15 4 5

Can you understand it?

If you have this cipher, you'll be able to figure it out:

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

It's certainly easier to understand once you have the key!

The cool thing about codes is that you can make them into anything you want them to be, as long as you share the cipher with the message's recipient. Sometimes a cipher is as simple as A+1, which means that A=B, B=C, C=D, and so on. Other times, each letter is represented by another letter, number, or symbol. In that case, you need to write out your cipher like the one above so your recipient can use it to figure out each letter.

INNOVATE.

Let's create your own code so you can leave a secret message on your Whiteboard!

You'll need:

- Your Whiteboard
- Notebook
- Pencil

1. Before you write your encoded message, you must develop the code. Draw a chart like the one below into your notebook and then experiment with different ciphers. A few blank squares have been included too in case you think of anything else you want to encode.



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
.	!	?										

2. Once you have created a cipher that you are happy with, cross out or tear out any other ciphers that you decided not to use. Make sure the actual cipher is clear and easy to find.
3. Then use your cipher to encode a secret message on your Whiteboard. Take your time and make sure each letter is encoded correctly. You wouldn't want to confuse your recipient!
4. When your message is ready, slip your notebook to your recipient and let them know that it will help decode a message on the Whiteboard.
5. Encourage your recipient to write you back a new message using either the same code or a different one. (Beware: Try not to reuse the same code over and over... it increases the risk of someone else cracking it!)
6. Continue writing secret messages back and forth, and enjoy your ability to send messages that no one else can understand!

Share a picture of your secret message encoded on your Whiteboard using #kidsworkshopexplore.

Just like you built your Whiteboard, skilled trade workers in **Construction and Remodeling** work on small and large projects building or deconstructing structures, laying foundations, and operating equipment and heavy machinery among many other things!

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