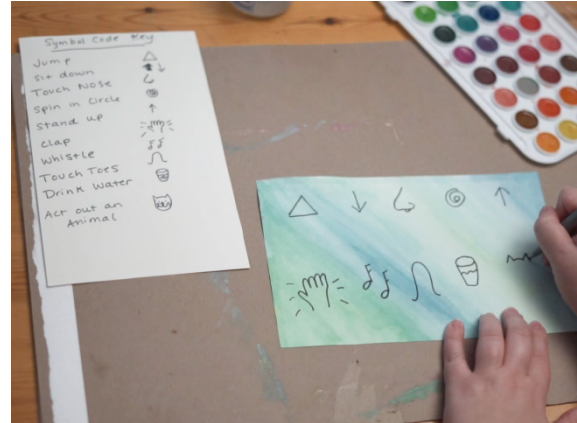# If/Then

Explore the basics of coding and the concept of "if this/then that". In the video, Kelsey will show you how to use paper and art supplies to turn a list of actions and symbols into a coding-based card game.

How-to video
https://youtu.be/wUMYRi9IKH0

Materials:
- **Paper (enough for a key and at least ten code cards)**
- **Markers or other writing implements**
- **Scissors**
- **Art supplies to decorate**
- **Something to put your cards in, like a hat or a bowl if playing alone
  or a friend to help pull cards if you are playing as a group**

Steps:
1. Decorate the paper you want to use for your cards. Try to keep your decorations simple so the symbols will be easier to read when you play.
2. Now make your code key. On a separate, clean sheet of paper, write out a list of ten actions. In the video, Kelsey kept her actions simple, like "jump" and "touch your toes" but your actions can be as simple or complex as you'd like.
3. Draw a unique symbol next to each action. You now have your own code! You'll use this key to help make your cards, keep track of your code if you forget what a symbol means, and serve as a master list if you want to add more actions and symbols later on.
4. Now make your cards! Using your key as a reference, draw your symbols on the decorated paper. Be sure to give each symbol enough space on the paper so you can cut out similar-sized cards.
5. Cut your paper into cards. If you want to name your card game, you can write out the name on the back of each card.

6. Mix your cards in a hat or fishbowl or regular bowl or whatever you got. You can even have a friend play role of "programmer" and pull action cards for you.

7. Play your game! See how fast you can memorize your code so you don't have to reference the key each time you play.

8. Keep going! See if you can add more symbols, and make your code more complex! Maybe you can write out a series of code cards that ultimately has you do a gymnastics routine or wash the car or set up the perfect space to take a nap.

Caregiver tip:

This activity is about getting your learner into the coding mindset. See if you can find other ways in your everyday life that are a function of "if this/then that" and make it a game of pointing them out together. If you'd like to go the next step, you can check out free online coding games like scratch or hopscotch.