



# DIY Air Force Activities: Coding with Cards



## Materials:

- deck of cards
- pen and paper
- friend to work with



Computer coding is writing in a language that your computer can understand. There are a variety of computer languages that programmers utilize to give your computer instructions. Code is used to design websites, write applications, and even create games! One important part of coding is the conditional statement. If/then statements are a common type of conditional statement. For example, if you feel happy, then clap your hands. You may have learned about using if/then statements when writing a hypothesis for a science experiment. A condition is set and an action is performed if that statement is true. The following exercise will have you use conditional statements to see if you can create your own code to guess the identity of a playing card!

## Directions:

1. Work with your partner to lay out some conditional statements that describe the cards. For example: If the card is red, then blink twice.
2. Have your partner draw a card and then use the agreed upon statements to describe the card to you. Can you guess what card it is? How complex does your code need to be? Can you simplify the code by creating new statements?

## Air Force Associations:

Computers play an integral role in every mission the Air Force executes. Expert programmers write, develop, design, and analyze programs using a variety of computer codes that are critical to keeping planes in the air and people safe on the ground. At the Air Force Research Labs, the Department of Defense (DoD) Supercomputing Resource Center (DSRC) is a high performance computing facility that provides the resources necessary for DoD scientists and engineers to accomplish their research. Simulations and software developed by these programmers advances cutting edge technology further every day.

