Directions: You and your partner will each play the role of Person A and Person $\mathbf{B}$ at least once. Between the two of you, choose who gets Person A first and who gets Person B first. Once you have finished, switch roles and play again.

Each secret code contains four numbers, using only the digits $1,2,3,4,5,6$. Digits may be repeated.
Person A writes the code on the Secret Code Slip, without showing their partner. Make it hard to guess!

Person B writes a guess on the Codebreakers Worksheet and hands it to the codemaker.
Person A fills in the Codemaker's Response column corresponding to their guess. Here is what you write in it:

1. First write the number of digits that are CORRECT and in the RIGHT LOCATION.
2. Next write the number of digits that are CORRECT but in the WRONG LOCATION.

For example, if your code was 2235 and your partner guessed 5221, mark 1-2 (2 is in the right location, the other 2 and digit 5 are in the wrong location).

As a second example, if your code was 4121 and your partner guessed 1421, mark 2-2 (1 and 4 are in wrong locations, but 2 and 1 are in the right location).

Person $B$ continues to guess and get responses from Person $A$ until either:

- Person B gets a response of 4-0 (all correct). Person B wins!
- Person B has filled in 10 guesses without figuring out the code. Person A wins!


## Secret Code - Person A

| Digit A | Digit B | DigitC | Digit D |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Secret Code - Person B

| Digit A | Digit B | DigitC | Digit D |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Secret Code Slip - Person C/extra

| Digit A | Digit B | DigitC | Digit D |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Codebreakers Worksheet

|  | Digit A | Digit B | Digit C | Digit D | Codemaker's Response |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Guess 1 |  |  |  |  |  |
| Guess 2 |  |  |  |  |  |
| Guess 3 |  |  |  |  |  |
| Guess 4 |  |  |  |  |  |
| Guess 5 |  |  |  |  |  |
| Guess 6 |  |  |  |  |  |
| Guess 7 |  |  |  |  |  |
| Guess 8 |  |  |  |  |  |
| Guess 9 |  |  |  |  |  |
| Guess 10 |  |  |  |  |  |

