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## Team Building with your Peers \& Family Bagels!

Estimated Time: 10-40 minutes
Age Range: 2nd grade \& up
What you need: paper, writing utensil, random objects (a minimum of 10), two or more participants

## Roles:

Player One - Holds the secret code
Player Two (along with any other players) - Guesses the secret code
Goal:
Guess the secret numbers (or objects) in their correct order
Option 1: Numbers

1. Player One of the activity writes down a four-digit 'secret' number on a piece of paper. This fourdigit number is not shown to the other player(s).
2. Player Two (along with any other remaining players) gets an opportunity to guess the four-digit number. As they make a guess, Player One will write down the guess on the paper. With each guess, Player One will respond with the following clues to the guesses.
a. The clues are as follows:
i. Pico: A number is correct, BUT it is in an incorrect place/location.
ii. Fermi: A number is correct AND it is in the correct place/location.
iii. Bagels: Nothing is correct - like the shape of a bagel!
3. Player Two (along with any remaining players) will use the clues given by Player One, and continue guessing, until they guess the secret number. Once this happens, they win! Now, they can be the secret-code-bearing Player One for the next round.

This an example of what keeping track of the game on paper may look like:

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Option 2: Objects


1. Collect a bunch of small random objects in or around the house. Get creative!
2. Have four designated spots on the ground where you play or a table.
3. For this activity, Player One chooses a 'secret' four-object code and writes it on a piece of paper. This is not shown to the other player(s).
4. Player Two (along with any remaining players) gets an opportunity to guess which objects they think are in each spot. As they run through their guesses, Player One writes them down. For each guess that is made, Player One responds with clues to those guesses (just like with the four-digit number version above).
5. Player Two (along with any remaining players) will use the clues given and continue guessing until they guess the secret object 'code'.
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Once everyone has finished playing, consider the following questions:
As Player Two (the guesser), was this difficult or easy for you? Explain why it was difficult or easy.

As Player One, did you feel like you had a lot of control over the 'secret'? Explain your answer.

As Player Two (the guesser), did you trust Player One with keeping the secret the same after each guess? Why or why not?
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Did anyone stand out as a leader during this activity? If so, what did they do or say to show leadership?

Are there any strategies that worked well when guessing the code? If so, what were they?

## Tips for Players:

To get the hang of playing, start with 3 or 2 digits.
This game can be turned into a teambuilding activity, where the group of players have to work together and all agree on each code to 'lock it in' with the secret-code-knowing Player One.

A guess limit can be established at the beginning of the game with the goal of trying to guess the secret code in that number of tries. Try to get the code in 10 or less guesses. Challenge yourself to try with seven or under!

Player One can add more random objects with each round to challenge Player Two and increase the possible combinations of secret codes.

