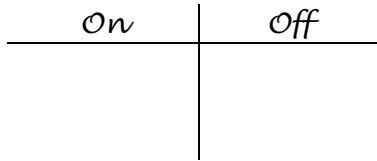


On / Off Game

Materials: Base Ten Cubes (1 bag) / Paper (2) and pencil

Purpose: Student explores the ways the focus number can be broken into two parts.

Create a recording sheet on one sheet of paper as shown below and fold the second sheet into quarters (see image below).



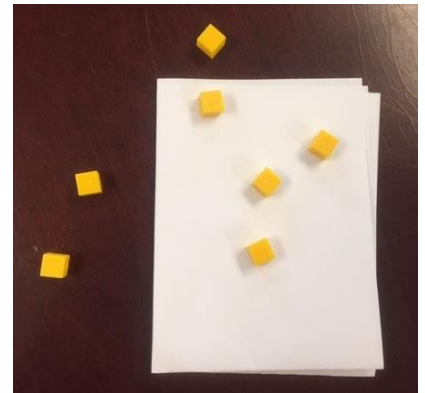
Ask student to count out Base Ten cubes equal to his/her Focus Number.

Ask student to hold the cubes over the folded second sheet of paper and to let them drop on the paper. Some cubes will stay on the paper and some will fall off.

Ask student to write the number of cubes "on" versus "off" the paper on the recording sheet.

Ask student to repeat 10 or more times, continuing to record. Discuss any patterns the student sees.

NOTE: Watch to see if student is able to predict how many cubes are off the paper after identifying the number on, OR whether he/she needs to count each cube to determine the number off. If student is counting, challenge him/her to predict the second number.



Make the Task a Game

Say to student,

"We are going to drop these cubes 7 more times on the folded paper. Each of us will pick a combination and we will see whose combination comes up the most. What combination do you think will come up the most?"

After student chooses a combination, tutor chooses a different one. The person whose combination comes up the most is the winner!

Play What If

Ask student,

"What if "x" cubes landed on the paper. How many cubes would be off?"

Repeat for a variety of combinations. Have student model the combination with cubes on the folded paper to support and verify the predictions.

Play True or False

Ask student to determine if the following equations for his/her focus number are true or false. Encourage student to use the recording sheet for reference if needed.

For Focus Number 6

$$5 + 1 = 1 + 5 \quad 3 + 3 = 4 + 2 \quad 3 + 4 = 6 \quad 6 = 0 + 6 \quad 6 = 5 + 1$$

For Focus Number 7

$$7 + 1 = 7 \quad 6 + 1 = 5 + 2 \quad 3 + 4 = 4 + 3 \quad 7 = 7 + 0 \quad 7 = 2 + 5$$

For Focus Number 8

$$6 + 2 = 3 + 5 \quad 5 + 3 = 7 \quad 8 = 8 + 0 \quad 1 + 7 = 7 + 1 \quad 8 = 4 + 4$$

For Focus Number 9

$$9 = 6 + 3 \quad 4 + 5 = 7 + 2 \quad 1 + 8 = 0 + 9 \quad 6 + 4 = 9 \quad 9 = 8 + 1$$

For Focus Number 10

$$8 + 2 = 6 + 4 \quad 10 = 7 + 3 \quad 1 + 8 = 10 \quad 0 + 10 = 9 + 1 \quad 10 = 5 + 5$$