

Social and Emotional Learning

Lesson Title: **Throw (Numbers)!**

Grade Level: **Middle School**

Project and Purpose

Students play a game to practice both their basic math skills and using their working memory.

Essential Question

Why should we build our working memory skills?

Materials

- Open Space

Teacher

1. Discuss working memory with the group: working memory is the ability to hold things in your mind and rearrange those things to create understanding. Remind them that short term memory is retrieval, being able to remember things as they were. Working memory is retrieving the image or information and then manipulating it in your head.
2. The teacher will facilitate this game. This will require the teacher to walk around the room, listen to the groups, give clues, and check their math.
3. Form small circles of four or five people. Have each person think of a number between one and 10. Behind their backs, each person should extend that number of fingers.
4. When the leader (teacher) calls, "Throw!" each group member will "throw their hands" by putting their hands with extended fingers into the center of their small circles.
5. Give everyone in the small circle 10 seconds to look at all the finger-numbers in the circle.
6. Tell group members to put their hands behind their backs.
7. Challenge the members of the group to remember all the finger-numbers that were thrown as well as the person who "threw" each finger-number.
8. Without anybody in the group speaking or showing their finger-numbers again, have one person in the group arrange the members in numerical order, lowest to highest or highest to lowest.
9. Have one group member step into the middle of the circle. Their job is to point to one person and add (a number) to that person's finger-number. The middle person swaps places with the person they pointed to and that person repeats the point-add-swap process.
10. When everyone has had a chance to point-add-swap, create new groups and have members prepare by thinking of a number and creating "finger-numbers."
11. Have the group throw their finger-numbers into the center of their small circles, and after 10 seconds have them pull their hands behind their backs.
12. This time, call two names in each group and have the other members of the group use their memory to add the two numbers.
13. Repeat with the operations of subtraction, multiplication, and division.
14. Do the same game multiple times including in full group.

