Activity Grades K–1 Break

High Fives and More

Math Concepts: Counting to ten
Materials: None
Players: Classroom

Set up: Have all students standing up in a large space where it is easy to move around.

Play: Each student is challenged to give a high five to exactly five other students. Sometimes this will be possible for all the students, and sometimes it won't, and that is part of the fun of this activity.

It turns out, and you should not reveal this to your students, that it is always possible if the number of students is even and at least six.

Goal: To enjoy an active engagement with counting.

– DISCUSSION AND TIPS –

Explore ideas for when it's possible and when it isn't. Sometimes, even when it is possible, poor choices by the students can make it fail. For example, when there are eight students, if six of the students high five each other, then the remaining two will be stuck.

When you start using numbers other than five, have students make conjectures about when it is possible or impossible. Start with the numbers 1, 2, 3, and 4 for easy examples to look at.

Tip for teachers: the key here will come down to *parity* - the issue of odd versus even. When the number of high fives OR the number of students in the group is even, it should be possible for everyone to give and get the same number of high fives. But when both are odd, it will be impossible. For example, a group of 7 students will not be able to each give precisely 3 high fives to others in the group.