

MUSICAL SHARES – A WARM-UP GAME

Learning Objective

This activity addresses the following principles:

- Sharing/division as partition
- Sharing/division as quotient
- Sharing/division with remainders
- Multiplication as 'groups of'

Curriculum Outcomes

Foundation

AC9MFN06

represent practical situations that involve equal sharing and grouping with physical and virtual materials and use counting or subitising strategies.

Year 1

AC9M1N06

use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem.

Materials

- Music player
- Open space or area to make groups

Instructions

1. All students in the class line up at the front of the classroom.
2. Ask them to determine how many students there are that day.
3. Record that number on the board.
4. Start the music.

Division using Partition

5. When music stops call out the number of groups.
6. Students must make the number of groups called, ensuring that all groups have an equal number of students.
7. Count the number of groups formed and the number of children remaining who are not part of a group and record them.
8. Repeat the activity several times and build up the record on the board.

Division using Quotition

9. When music stops call out the number of students required in each group.
10. Students must form groups containing the number of students called.
11. Count the number of groups formed and the number of children remaining who are not part of a group and record them.
12. Repeat the activity several times and build up the record on the board.

Notes

- For younger students, begin using group markers. For example, you may like to laminate some images and place them on the floor to indicate the number of groups you would like the students to form. Slowly phase these out as student confidence increases.
- If there are an odd number of students in the class, you can include a teacher in the count to decrease difficulty and when working with 2 groups.
- Begin by choosing groups where there is no remainder.
- You can introduce the concept of multiplication as the inverse of division by beginning with the number of groups and asking how many altogether.

Assessment and Differentiation

- **Foundation:**
 - Begin using group markers. For example, you may like to laminate some images and place them on the floor to indicate the number of groups you would like the students to form.
 - Ask students to divide themselves into two equal groups, with group markers.
 - Then into three or more equal groups with group markers.
 - Repeat the last 2 stages without group markers.
 - For quotition, ask students to form groups of two by finding a partner. Then count how many groups we have.
 - Gradually increase the difficulty by increasing the number of students in each group.
- **Year 1+:**
 - Provide opportunities for extension by increasing the remainders.
 - Alternate between partition and quotition at each turn.
 - Create opportunities to work with odd and even numbers.

Assessment

- Provide students with a quantity of counters or unifix.
- Ask them to determine how many equal groups they can make without any remainders.
- Ask them to determine how many groups they can make that have an equal quantity of counters in each group.
- Record their thinking on the CRA Board or in their portfolios.