Either way

Activity

Give 20 children one 0–9 card each. Divide the rest of the children into two groups of two or more. Give cards 1–12 to one group and cards 2–12 to the other group.

Call out a number that is the multiple answer to one or more sums within particular times tables. The children with the 0-9cards form the number by standing in the centre of the space, separately or in pairs or in lines of three, and holding up the number cards in the correct orders.

Learning objective

Linking numbers that are factors and multiples of each other.

Preparation

- □ Set of number cards 1–12
- □ Set of number cards 2–12
- □ 2 sets of number cards 0–9

Number of players

The children in the two groups confer and decide how each answer can be made and in how many different ways. They then take those numerals to the centre, in pairs, one from each group, to join those already there. For example:

- **72** is called, so two sets of children holding up 7 and 2 walk to centre and stand together.
- 6 x 12 and 12 x 6, 8 x 9 and 9 x 8 are decided upon, so a child holding 6 and a child holding 8 from one group
- and a child holding 12 and a child holding 9 from the other group walk to centre to join them.

Reinforce that multiplication works in the same way whichever order the numbers are used by asking the pairs to move around each other and chant the phrase twice each, to prove that either order produces the same answer. For example:

□ 6 x 12 is 72; 12 x 6 is 72 and □ 8 x 9 is 72: 9 x 8 is 72

All players then return to their groups, ready to work on the next number called.

Extension/challenge

Ask children to guess which multiple occurs most frequently within times tables 2–12. They may hit upon the answer by lucky guess or spend a long time discussing within groups and working it out. Some classes may take it up as an interesting challenge to work out and discover with their families at home. (Numbers 12, 18, 20, 30, 40, 48, 60 and 72 each occur four times within the tables and 36 occurs five times, but 24 is the most frequent, occurring six times, in tables 2–12.)