Lesson 2.1.4A Resource Page

THE COLOR SQUARE GAME

Objective: Figure out the arrangement of colored squares on a $3 \times 3$ grid or a $4 \times 4$ grid using as few clues as possible.

Rules: In a $3 \times 3$ Color Square Game, each of the nine squares are colored: three are red, three are green, and three are blue. However, all squares of the same color must be contiguous (linked along a side). The diagram demonstrates what is meant by contiguous.

In a $4 \times 4$ Color Square Game, there are four red squares, four green squares, four blue squares, and four yellow squares. Again, all squares of the same color must be contiguous.

To get information about a Color Square, you ask, “What is in row ____?” or “What is in column ____?” You will then be given the total number of squares of each color in that row or column, but not necessarily in the order that they appear in the secret arrangement. For reference, rows are numbered from top to bottom and columns are numbered left to right.

Each member of your team should create one $3 \times 3$ and one $4 \times 4$ Color Square, then choose a partner and play.