

## Moving Molecules Game

Suggested  
Grades 2-4

Objective Students will imitate the movement of molecules in a variety of situations to assist them to visualize and better understand the concept of the constant motion of molecules.

Materials

- a large area

Method

- Have the whole class stand up and explain that they are now going to "become" molecules. Explain that warm molecules move around a lot and they like to spread out away from each other. Ask students to do this by walking, bouncing, or dancing. The hotter the molecules are, the faster they move. Ask students to act like hot molecules.
- Next they are going to become cold molecules. Cold molecules like to huddle together and bounce slowly. The colder the molecules are slower they bounce, and when they freeze they bounce really slowly, but they don't stop moving. Ask students to act like frozen molecules.
- Now give students cues as to how they should act like. Yell out hot molecules, cold molecules, and warm molecules, and students should act accordingly. Start off changing cues slowly but then get faster, see if the class can respond right away.
- **Extension:** Play the game through acting like solid (huddle very close), liquid (spread out a bit, but stay in a confined area), and gas molecules (spread out everywhere). Then make it more complicated by asking them to act like hot liquid molecules, cold solid molecules, etc..