***How Do Fluids of Different Densities Behave?***

*Discover Activity*

1. Place a cardboard divider across the middle of a plastic shoe box.
2. Add a few drops of red food coloring to a liter of warm water. Pour the red liquid, which represents low-density warm air, into the shoe box on one side of the divider.
3. Add about 100 mL of table salt and a few drops of blue food coloring to a liter of cold water. Pour the blue liquid, which represents high-density cold air, into the shoe box on the other side of the divider.
4. What do you think will happen if you remove the divider?
5. Quickly remove the divider. Watch carefully from the side. What happens?

**Developing Hypotheses:** Based on this activity, write a hypothesis stating what would happen if a mass of cold air ran into a mass of warm air.