

SCIENCE FROM HOME

FLYING TEABAG

Instructions:

1. Empty the tea bag
2. Set the tea bag tube upright on the plate
3. Light the top edge of the teabag
4. Watch what happens!
5. Catch the ash on the plate as it falls

Questions:

Why does the teabag go flying?

Why does the tea bag fall instead of continuing to float upwards?

What makes heated air less dense?

How it works:

All fluids (liquids and gasses) move in predictable ways when heated. This movement is called convection. When a fluid is heated the molecules spread out from each other, making the heated material less dense. As a result, the warmer portion rises. As it rises cooler material moves down, taking the place the warmer material was originally. If the heat source stays in the same position, this movement continues as a cycle.

Going beyond:

Do different brands of teabag fly differently?

How do the concepts in this experiment apply to hot air balloons?

Materials:

Plate or other non-flammable surface

Teabag (tag removed and emptied)

Lighter or long match

Key terms:

Convection

Combustion

Density

