



## TEA BAG ROCKET

### SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything when performing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

### INGREDIENTS

- [Bigelow Earl Grey Black Tea Bag](#)
- Scissors
- Grill lighter

### INSTRUCTIONS

**STEP 1:** Using the scissors remove the staple and string from the Bigelow Earl Grey Black Tea bag.

**STEP 2:** Open the Bigelow Earl Grey Black Tea bag and remove the tea leaves.

**STEP 3:** Open the Bigelow Earl Grey Black Tea bag to form a cylinder. Place the cylinder upright on a flat surface, away from curtains or anything that might catch fire.

**STEP 4:** Using the grill lighter, have an adult, ignite the top of the tea bag, and observe. Provide evidence that energy is transferred from place to place by heat.

### EXPLANATION

Convection, the transfer of heat due to the movement of air molecules, in the cylinder, creates an upward force. Eventually, the upward force lifts the tea bag, into the air, creating a tea bag rocket.



### SCIENCE BACKGROUND

The molecules that make up matter are consistently moving. Energy is the ability to do work. Energy is present whenever there are moving objects, sound, light, or heat. The energy of moving molecules is known as thermal energy. The faster the molecules are moving, the more thermal energy the matter has. Heat is the transfer of thermal energy from a warmer object to a cooler object. Heat is transferred from one location to another through conduction, convection, or radiation. Conduction is the transfer of heat between objects that are in direct contact with each other. Convection is the transfer of heat by currents through a liquid or gas. Radiation is the transfer of heat through space.

### I CAN STATEMENTS

- ✓ I can make observations to provide evidence that energy can be transferred from place to place by heat.

### NEXT GENERATION SCIENCE STANDARDS CONNECTION

4 – Energy | Energy and Matter