Science Experiment:
Alka-Seltzer Rockets
Project: Aerospace, Science, Chemistry

Supplies:

- Film Canisters
- Alka-Seltzer
- Water
- Plastic table cloth

Time: 30 minutes

What to Do:

1. Frist break a tablet of alka-seltzer into 4 equal pieces. You will need ¼ of an alka-seltzer tablet. Set aside any remaining Alka-Seltzer for the other trials.
2. Over the plastic table cloth, pour water into a film canister until it is about ½ to ¾ full.
3. Then place the ¼ tablet of Alka-Seltzer into the film canister.
4. Put the cap on your film canister and turn it upside down.
5. Place the film canister on the ground and stand back.

Reflect:

1. What happened when you did the experiment?
2. What would happen if you added more or less Alka-Seltzer? (try it!!!)
3. What is happening to cause this reaction?

Apply:

1. Why is understand this chemical reaction important?
2. Where do we see similar chemical reactions in our everyday life?
3. Where can we find CO_2 in our environment? Does it react the same way? How does it work?

Facilitator Extras:

What's Happening?

When Alka-Seltzer is added to water, a chemical reaction releases carbon dioxide gas. As more are more CO_2 is released, pressure builds up inside the film canister. Eventually the pressure builds up inside the film canister. Eventually the pressure builds so much that the force is great enough to pop the lid off the film canister. Newton's Third Law states that for every action (or force) in nature there is an equal but opposite reaction. When the top of the canister comes off, two things happen. The first action involves the top moving down and pushing up on the body of the canister. At the same time pressurized CO_2 gas rushes out of the body of the canister pushing it even more. These actions or forces cause the film canister to launch into the air!

Source:

Museum of Science+Industry -Chicago. Family Science Night Activity Guide Booklet.