BEAVER SCOUTS

STEM

Reaction Rockets

THE ADVENTURE

Beaver Scouts build rockets powered by an acid-base reaction.

PLAN

- Liquid yoghurt bottles work well for this activity and everybody gets a snack!
- The best film canisters have lids that fit inside the body of the film canister.
- Rockets should be launched outdoors.

- Bottles require some extra stabilization during launch. "Legs" for the rocket can be created using cardboard fins, Popsicle sticks, pencils or small twigs.
- Alka-Seltzer tablets are more manageable than baking soda and vinegar for launching rockets.

DO

- Ask Beavers to explain what they observe while testing fuels.
 Encourage them to think about how what they see could power a rocket.
- Rockets can be "steered" somewhat by adding a nose cone and fins.
- The open end is the bottom of the rocket.

- Fuels can be separated in a few ways. This is an opportunity for Beavers to get creative.
 - The solid can be placed on the cap, and will then mix with the liquid when the container is flipped over. One way to do this is to glue Alka-Seltzer tablets to the lid.
 - A pouch can be made of that will either open, leak or disintegrate when it comes in to contact with the water.
 Plastic wrap, aluminum foil or paper would work.

SAFETY TIP

 The reaction can be unpredictable, and it is impossible to tell when the rocket will launch. Whoever is launching the rocket should wear safety goggles.

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