



BUILDING A SIMPLE ROCKET FROM A FILM CANISTER

★ Build it. Launch it. Learn it! ★

OBJECTIVE

Build a simple rocket using a film canister and learn how pressurized air can create thrust and make a rocket fly.

QUICK INFO

Time: 30–45 minutes

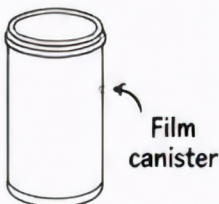
Ages: 8+

Best with: An adult helper



MATERIALS

- 1 plastic film canister with tight-fitting lid
- Paper or lightweight cardstock (for nose cone and fins)
- Tape
- Scissors
- Drinking straw
- Bicycle pump (with needle)
- Needle (that fits your pump)
- Hot glue or strong tape
- Markers or stickers (optional)
- Launch area (outdoors!)



BUILD STEPS

- 1 NOSE CONE:** Roll paper into a cone. Tape or glue the seam. Glue the cone to the top of the film canister.
- 2 FINS:** Cut 3–4 fins from cardstock. Make each fin about the same size. Glue or tape the fins evenly around the bottom of the canister.
- 3 PREPARE THE LID:** Use the needle to make a small hole in the center of the canister lid. Make sure it fits the pump needle snugly.
- 4 CHECK THE FIT:** Press the lid on tight so no air can leak out around the edges.
- 5 YOU'RE READY TO LAUNCH!** Take it outside to your launch area.

THE SCIENCE

When you pump air into the canister, the air pressure inside builds up. When the lid pops off, the air rushes out the bottom, pushing the rocket up into the air. This is called **thrust**—just like real rockets!

OBSERVE & RECORD

How many pumps did it take to launch your rocket? _____

How high did it go? _____

What could you change to make it go higher? _____



LAUNCH INSTRUCTIONS

1. Place the rocket on a smooth surface in an open area.
2. Push the pump needle through the hole in the lid.
3. Step back and pump air in.
4. The lid will pop off and the rocket will fly!
5. Have fun and be safe!



SAFETY FIRST

- Always launch rockets outdoors.
- Make sure no people, pets, or breakable objects are near the launch area.
- Do not aim the rocket at anyone.
- Wear eye protection if you like!