



The Science Behind the Experiment:

When you release the air from the balloon, it rushes out the back, pushing the balloon forward. This is a simple demonstration of Newton's third law of **motion**: for every action, there is an equal and opposite **reaction**. The air moving one way forces the balloon to move the other way. This fun activity helps kids understand how **forces** and motion work while getting them excited about the science of rockets!

We're going to make a spooky rocket that flies using air and strings! When we let the air out of the balloon, it pushes the rocket along the string because of a science rule called "action and reaction," where pushing in one direction makes it move the other way. This helps us see how forces make things move, which is a cool way to learn about them!

Definitions

Force: A push or pull on an object that makes it move.

Motion: The movement of something from one place to another.

Reaction: What happens when one thing pushes on another thing, making it move in the opposite direction.



Materials:

- Balloons (white or glow-in-the-dark for a ghostly effect)
- String (about 3-5 metres long)
- Tape
- Scissors
- Straw
- Black marker
- 2 Chairs or objects to tie the string to
- Optional: Googly eyes and paper for ghost decorations



Instructions:

1. Decorate your balloon by drawing a ghostly face on it with a black marker, or tape on some googly eyes for extra spookiness. You can even cut out ghost shapes from paper and tape them to the balloon!
2. Cut a long piece of string and thread it through a straw. The straw will be your rocket slider.
3. Tie each end of the string to two sturdy objects (like chairs or doorknobs) so that the string is stretched tightly across the room. This will be your rocket's "track."
4. Blow up the ghost balloon, but don't tie it! Pinch the end to keep the air from escaping.
5. Tape the balloon to the straw, holding the balloon closed at the same time.
6. When you're ready for liftoff, release the balloon and watch it zoom along the string like a ghostly rocket!