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START YOUR JOURNEY

Welcome to Rocket Research 101

Propulsion - Thrust

Statement: Rocket motors generate push, or "thrust," by expelling a propellant out of the nozzle.

Rocket Scientists, take the Newton's Laws of Motion Challenge. Guess which of Newton's Three Laws of Motion applies!

Select the law that you think **best** fits the statement in the yellow box above.

Law 1. The Law of Inertia:

"An object at rest tends to stay at rest and an object in motion tends to stay in motion."

Law 2. The Law of Proportionality:

"The acceleration of an object is directly proportional to the net force and inversely proportional to its mass." This can be expressed in equation form:

$$\text{Force} = (\text{Mass}) \times (\text{Acceleration})$$

Law 3. The Law of Action-Reaction:

"For every action there is an equal and opposite reaction."


Thrust counters the Earth's gravity and, if it's strong enough, lifts the rocket off the Earth's surface. Thrust is often measured in pounds (English units) or Newtons (metric units) and is another word for FORCE.

Before we continue, let's try a simple activity using weight and thrust.

A simple thrust activity.

Enter your weight:

Then select ">>Next" to continue.

>> Next 

A simple thrust activity.

Correct !

This amount of upward thrust is EQUAL to your weight, you will remain at a constant level --- as long as your thrust remains the same!

