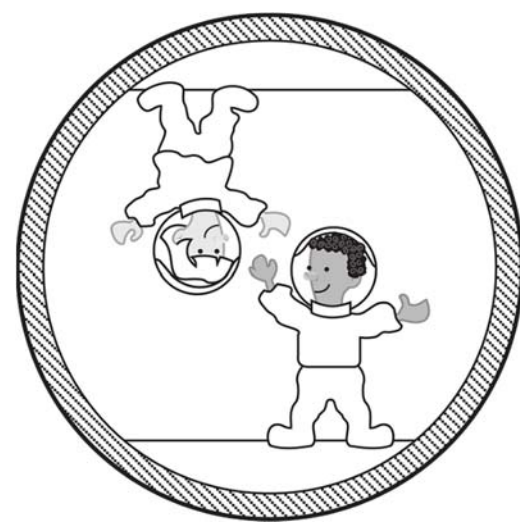


Name _____

Gravity and Newton's Laws

Gravity is a force that pulls objects towards each other. It's what keeps us on the ground and makes things fall when we drop them. Gravity is related to Newton's laws because it's the force that makes objects move, following these laws.



Example: When you toss a ball in the air, it goes up because you applied force by throwing it. But then, gravity pulls the ball back down, following Newton's First Law. If you throw it harder, it goes higher, showing the effect of Newton's Second Law.

Real-world application: When astronauts are in space, they experience microgravity, which means they feel weightless. But they are still following Newton's laws. When they push off a wall, they move in the opposite direction because they are exerting an action-reaction force.

Questions

1. What is gravity?
2. How does gravity relate to Newton's laws of motion?
3. Explain why a ball falls back to the ground when thrown in the air.
4. How does the force applied when throwing a ball affect its height?
5. Describe how astronauts in space experience gravity and Newton's laws.