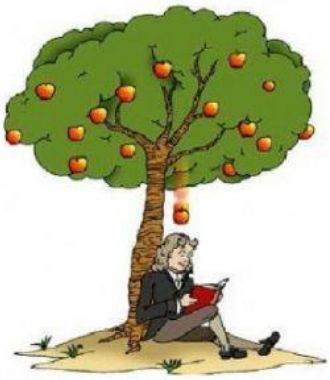
# NEWTON'S LAWS OF MOTION



## Learning intention.

**State, explain and apply in different contexts each of Newton's laws of motion ( Inertia, F = ma, action/ reaction)**

For each scenario, decide if this is an example of Newton's 1st, 2nd or 3rd law of motion. For your answer, simply put the number 1, 2 or 3. Any other answer will be counted incorrect.

- A coin put on top of a paper on the table will stay in place when the paper is pulled.
- A farmer could not move his cart full of vegetables with only one horse, so he added another horse in order to move the cart.
- A truck with less mass will have a bigger acceleration than a truck with more mass.
- Daddy hit the golf ball with more force than little Johnny. Daddy's ball went the farthest.
- When a basketball player shoots a jump shot, the ball follows an arcing path because of gravity and friction.
- The harder you pedal your bicycle, the faster your bicycle will go.
- The large snowball was much harder to move than the smaller one.
- A ball that rolls on a flat surface will continue to roll until friction brings the ball to a stop.
- If you push a small table and a big table with the same amount of force, the small table will move faster.
- When a car slams on brakes the passengers body is thrown forward until stopped by the seat belt.
- Walker hits the ball with more force than Max, so Walker's ball went farther into the outfield.
- It takes a track runner several yards after the finish line to come to a stop.
- When an air-filled balloon is set free, the air inside it rushes out and the balloon moves forward.
- When walking on a sandy beach, while we exert force forward with each step, we push the sand backward.
- The bowling pins fell down when they were hit by the bowling ball.
- A rider on a running horse is thrown forward when the horse stops suddenly.
- The boy had to apply extra force to move the big bag.
- A 50 pound rock is much harder to move than a 5 pound rock.
- The biker was moving at 25 miles per hour until he hit a rock that threw him over the handlebar

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