

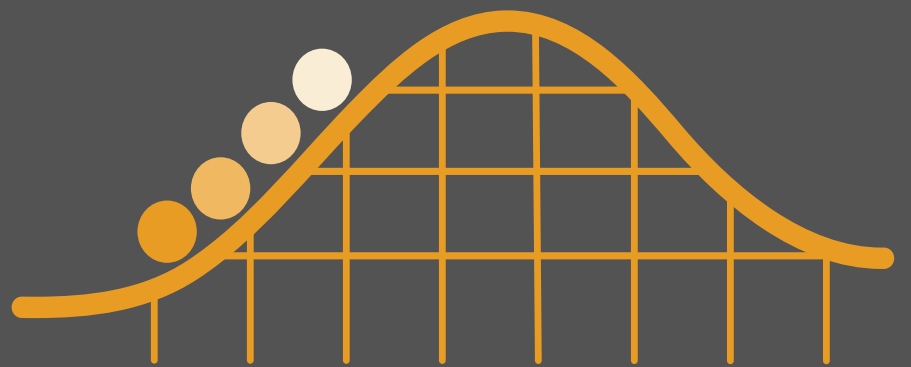
3 Laws of Motion

Sir Isaac Newton understood forces and motion in a way no one else did. He saw relationships between the 2, and described those relationships through these 3 laws:

1st Law (Law of Inertia)

An object at rest will remain at rest and an object in motion will remain in motion, until acted on by an unbalanced force.

Example: Roller coaster cars and your body resist the change in motion as they go up and down, because they have inertia



2nd Law

The acceleration of an object depends on its mass and the amount of force acting on the object: $F = m \times a$
 F = force (N), m = mass (kg),
 a = acceleration (m/s^2)

Example: A person pushes hard to get a car moving, but it will barely accelerate because the car's mass is huge



3rd Law

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

Example: Oars of a kayak push water backward and the kayak moves forward



NOTICE: All information on this poster comes from subject matter experts who contributed to the creation of our DataSnap STEM Labs and their curricula.

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