



UNDERSTANDING CAR CRASHES: IT'S BASIC PHYSICS

MOMENTUM BASHING

IIHS in the Classroom NGSS Standards Alignment

High School

DCI PS2.A

Momentum is defined for a particular frame of reference; it is the mass times the velocity of the object.

HS-PS2-1

Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.

Middle School

MS-PS2-2

Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.

Grades 3-5

5-PS2-1

Support an argument that the gravitational force exerted by Earth on objects is directed down.

3-PS2-2

Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

3-PS2-1

Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.