

Physics Related Episodes of Mythbusters

SEASON 1

Cell Phone Destroys Gas Station

Season 1, Episode 3

THERMODYNAMICS, ELECTRICITY, PRESSURE, VELOCITY, FORCE, ACCELERATION: attempt to blow up a gas station using a cell phone.

Penny Drop

Season 1, Episode 4

TERMINAL VELOCITY: Would a penny dropped from the top of the Empire State building accelerate enough to kill someone standing on the ground?

Buried Alive

Season 1, Episode 5

MOMENTUM & COLLISIONS: test whether a person who is falling off a bridge can save themselves by throwing a hammer ahead of them to break the surface tension of the water prior to their own impact

SEASON 2

Helium Football

Season 2, Episode 1

MASS, VELOCITY, LIFT, INERTIA: Footballs filled with helium showed no significant difference from balls filled with compressed air.

Bullets Fired Up

Season 2, Episode 4

TERMINAL VELOCITY: Do bullets, fired upward, reach a high enough velocity when falling to kill someone?

Quicksand

Season 2, Episode 7

ELECTRICITY: Fatal scenario: drop an electrical appliance in a bathtub?

Anti-Gravity Device

Season 2, Episode 8

GRAVITY: Is it possible to build an anti-gravity machine?

Beat the Radar Detector

Season 2, Episode 18

AIR RESISTANCE & LIFT: effects, theories, and laws of physics are used to see if a person could glide to safety with a sheet of plywood. The many effects of air resistance and lift are used to calculate whether or not a sheet of plywood would generate enough lift falling down to glide safely.

SEASON 3

Is yawning contagious?

Season 3, Episode 4

GRAVITY: small scale model vs. large scale racer - downhill velocity.

Son of a gun

Season 3, Episode 6

TRANSFER OF ELECTRICAL ENERGY: This tests if using a cell phone during a thunderstorm could result in being electrocuted.

Ancient Death Ray

Season 3, Episode 8

LIGHT: Light source and making a parabolic dish using mirrors to collect all the light (and heat)

Breaking glass

Season 3, Episode 13

SOUND WAVES: The amplitude and frequency of the sound waves emitted by a voice (in song) are used to exceed the resistance of the glass, causing it to vibrate and result in breaking the glass.

Chinese Invasion Alarm

Season 3, Episode 15

VIBRATIONS: Did the ancient Chinese use drums to listen to tunneling invaders.

Bulletproof Water

Season 3, Episode 16

GRAVITY: Does diving underwater protect a person from bullets? Calculates water resistance - would it be enough to slow the velocity of the bullet and not hit the person. Can a person swing 360 degrees on a swing set?

Flight Attendant Freefall

Season 3, Episode 20

ACCELERATION OF GRAVITY & FORCE: Can a person withstand the force of a 33,000 foot descent of an airplane crashing to the ground?

SEASON 4

Crimes and Myth-Demeanors 1

Season 4, Episode 11

INTERFERENCE & DIFFRACTION: laser alarm: can it be defeated?

Shattering Subwoofer

Season 4, Episode 15

VIBRATIONS, WAVES, SOUND

SEASON 5

Trailblazers

Season 5, Episode 19

THERMODYNAMICS: Will a flaming trail of gasoline from a moving vehicle catch up to its tank and cause it to explode? Can a person outrun a trail of burning gunpowder? Can a person be burned by a defibrillator if wearing anything metal such as an underwire?

Special Supersized Myths

Season 5, Episode 21

SOUND WAVES: Are sharks attracted by low frequency sound waves that are transmitted through water.

Airplane Hour

Season 5, Episode 25

VELOCITY, SPEED, TIME: does a 4000 ft fall take 90 seconds.

SEASON 6

Viral Hour

Season 6, Episode 11 (or 104 - check?)

FLUIDS AND DENSITY: In the part "Invisible Water", a gas is used which is 5 times as dense as air, this gas is used to make a tin foil boat float on the gas.

Ninjas 2

Season 6, Episode 15

REACTION TIME: reaction time of a person to be able to catch an arrow in mid air.

SEASON 7

Demolition Derby

Season 7, Episode 1

FORCES: If a car is dropped from 4000 feet how fast will it fall, they also test the force of two objects colliding against each other. VELOCITY & WEIGHT DISTRIBUTION: speeding car races against same model car that is dropped from 4000 ft. -- bus makes hard turn, redistribution of weight on bus

Running on Water

Season 10, Episode 4

FLUIDS & BUOYANT FORCE: Attempt to run across water using various equipment.

Seesaw Saga

Season 7, Episode 7

FORCE, MOMENTUM, WORK: The episode talks about: Could a sky diver whose parachute failed to open hit a playground seesaw and send a small girl flying seven stories high?

Curving Bullets

Season 7, Episode 10

VELOCITY & FORCE: Can a shooter curve a bullet around an obstacle by swinging or flicking his or her arm?

SEASON 8

Spy Car Escape

Season 8, Episode 4

GRAVITY & VELOCITY: If an object is fired backward from a vehicle moving forward will the object simply fall to the ground?

Mission Control

Season 8, Episode 6

THIRD LAW OF MOTION: Car collision illustrating Newton's third law of motion.

Arrow Machine Gun

Season 8, Episode 16

SPEED, DISTANCE, VELOCITY: Compares the speed, precision, and distance between an Ancient Greek arrow machine gun and modern machine guns

Phone Book Friction

Season 8, Episode 16

FRICTION: This episode tests if whether or not two interlocked phone books are possible to take apart.

SEASON 9

Boomerang Bullet

Season 9, Episode 1

VELOCITY, DISPLACEMENT, ACCELERATION, FORCE: Can you launch someone above a wall?

Bubble Trouble

Season 9, Episode 4

BUOYANCY: Use of hydrometer to stay afloat in bubbling water.

Dodge a Bullet

Season 9, Episode 8

MECHANICS, MOMENTUM & COLLISIONS: can you dodge a bullet? will a fall into water inflict the same injuries as one onto pavement from the same height.

Paper Armor

Season 9, Episode 11

VIBRATIONS & WAVES: Explore shock waves in water.

Newton's Crane Cradle

Season 9, Episode 14

NEWTON'S CRADLE: Difference between a large scale model of a Newton's cradle vs. a smaller scale model.

SEASON 10

Bubble Pack Plunge

Season 10, Episode 10

FORCE & MOMENTUM: Tests the force and trajectory path of an ejector seat.