



# Cartoon Physics

An Introduction to  
The Laws of Cartoon Physics

# An Example

DISCUSSION: Do your eyes ever pop out of your head? Of course not! But in cartoons, it is common for a character's eyes to pop out whenever he suddenly see's something scary.

Like a bomb.



This provides us with the following law.



# Law of Frightful Recognition

When a cartoon character suddenly sees something scary, his eyes pop out of his head and he remains motionless until a horn is sounded and his eyes pop back in.



# Today



- We will view a couple **Cartoons**
- You **Will** take your own notes on things you see that violate Newtonian Physics (that is, all the junk we learned so far)
- Your team will complete a worksheet detailing six cartoon laws.
- You get a **grade** for your **notes**.
- You get a **grade** for your **Worksheet**.

# Name of Cartoon Law

Statement

Supporting Sketch

Required Format

# Remember to Consider ...

- Velocity
- Acceleration
- Net force
- Momentum
- Impulse
- Gravity
- Newton's Laws

- I'll wait while you take a few notes





**So, let's see the cartoons!**

**Cartoon  
Links  
removed**

**got  
gravity?**



**Do not forget to take notes !!!**

# That's All Folks !!





# Day Two ...

- ANY BODY SUSPENDED IN SPACE WILL REMAIN IN SPACE UNTIL MADE AWARE OF ITS SITUATION.
- ANY BODY IN MOTION WILL TEND TO REMAIN IN MOTION UNTIL SOLID MATTER INTERVENES SUDDENLY.
- ANY BODY PASSING THROUGH SOLID MATTER WILL LEAVE A PERFORATION CONFORMING TO ITS PERIMETER.
- THE TIME REQUIRED FOR AN OBJECT TO FALL TWENTY STORIES IS GREATER THAN OR EQUAL TO THE TIME IT TAKES FOR WHOEVER KNOCKED IT OFF THE LEDGE TO SPIRAL DOWN TWENTY FLIGHTS TO ATTEMPT TO CAPTURE IT UNBROKEN.
- ALL PRINCIPLES OF GRAVITY ARE NEGATED BY FEAR.
- AS SPEED INCREASES, OBJECTS CAN BE IN SEVERAL PLACES AT ONCE.
- CERTAIN BODIES CAN PASS THROUGH SOLID WALLS PAINTED TO RESEMBLE TUNNEL ENTRANCES; OTHERS CANNOT.
- ANY VIOLENT REARRANGEMENT OF FELINE MATTER IS IMPERMANENT.
- A CAT WILL ASSUME THE SHAPE OF ITS CONTAINER.
- EVERYTHING FALLS FASTER THAN AN ANVIL.
- FOR EVERY VENGEANCE THERE IS AN EQUAL AND OPPOSITE REVENGEANCE.
- A SHARP OBJECT WILL ALWAYS PROPEL A CHARACTER UPWARD.

# Cartoon Law I

## Gravitation Delay

- ***Any body suspended in space will remain in space until made aware of its situation.***
- Daffy Duck steps off a cliff, expecting further pastureland. He loiters in midair, soliloquizing flippantly, until he chances to look down. At this point, the familiar principle of 32 feet per second per second takes over.

# Cartoon Law II

## Splatt

- ***Any body in motion will tend to remain in motion until solid matter intervenes suddenly.***
- Whether shot from a cannon or in hot pursuit on foot, cartoon characters are so absolute in their momentum that only a telephone pole or an oversized boulder retards their forward motion absolutely. Sir Isaac Newton called this sudden termination of motion the stooge's surcease.

# Cartoon Law III

## Cookie Cutter Collisions

- ***Any body passing through solid matter will leave a perforation conforming to its perimeter.***
- Also called the silhouette of passage, this phenomenon is the specialty of victims of directed-pressure explosions and of reckless cowards who are so eager to escape that they exit directly through the wall of a house, leaving a cookie-cutout-perfect hole. The threat of skunks or matrimony often catalyses this reaction.

# Cartoon Law IV

## Gravitational Races

- ***The time required for an object to fall twenty stories is greater than or equal to the time it takes for whoever knocked it off the ledge to spiral down twenty flights to attempt to capture it unbroken.***
- Such an object is inevitably priceless, the attempt to capture it inevitably unsuccessful.

# Cartoon Law V

## Gravitational Repulsion

- ***All principles of gravity are negated by fear.***
- Psychic forces are sufficient in most bodies for a shock to propel them directly away from the earth's surface. A spooky noise or an adversary's signature sound will induce motion upward, usually to the cradle of a chandelier, a treetop, or the crest of a flagpole. The feet of a character who is running or the wheels of a speeding auto need never touch the ground, especially when in flight.

# Cartoon Law VI

## Speed Cloning

- ***As speed increases, objects can be in several places at once.***
- This is particularly true of tooth-and-claw fights, in which a character's head may be glimpsed emerging from the cloud of altercation at several places simultaneously. This effect is common as well among bodies that are spinning or being throttled. A 'wacky' character has the option of self-replication only at manic high speeds and may ricochet off walls to achieve the velocity required.



# Cartoon Law VII

## Painted Portals

- ***Certain bodies can pass through solid walls painted to resemble tunnel entrances; others cannot.***
- This inconsistency has baffled generations, but at least it is known that whoever paints an entrance on a wall's surface to trick an opponent will be unable to pursue him into this theoretical space. The painter is flattened against the wall when he attempts to follow into the painting. This is ultimately a problem of art, not of science.

# Cartoon Law VIII

## Kitty Conservation

- ***Any violent rearrangement of feline matter is impermanent.***
- Cartoon cats possess even more deaths than the traditional nine lives might comfortably afford. They can be decimated, spliced, splayed, accordion-pleated, spindled, or disassembled, but they cannot be destroyed. After a few moments of blinking self-pity, they re-inflate, elongate, snap back, or solidify.
- **Corollary:** A cat will assume the shape of its container.

# Cartoon Law IX

## Anvilocity

- ***Everything falls faster than an anvil.***



# LOONEY TUNES















