

What Works in Urban Schools

Home-Spun Science

Saturday 01/21/2012

Daryl L Taylor
NASA Astrophysics Educator Ambassador
Greenwich HS, CT
DarylScience.com

ALL PPTs are at

- DarylScience.com
 - Teacher Stuff
- DTFizzix.com
 - Student Stuff

Mental Warm-Ups

I had a titanium rod put through my tibia from my knee to my ankle. Do I need a Ti bicycle now? My wife says "NO."

—John Newsome, MN

My buddy Vegan Bob broke his femur a few years back and had a gigantic titanium rod inserted into the bone. When he was able to throw a leg over his old steel bike, he found out the hard way that certain combinations of steel and titanium will attract each other with powerful magnetic forces. He was unable to remove himself from his bike for almost three days and nearly died of dehydration. To prevent this near-fatal situation from ever occurring again, his doctor prescribed a Litespeed Ultimate (built of the same 6Al/4V titanium in his leg). Since selling his old bike and riding the Litespeed, he has fully recovered and is cycling stronger than ever. So, yes, you need the Ti.



ANDREW JUSKAITIS, our Test Editor, busts myths, breaks barriers and lays it all on the line to help you make the right buying decisions. Send your questions to Andrew at StuffJunkie@BICYCLING.com.

Why are we here?

- To gather a little ammunition to beat back the darkness of the evil scientific illiteracy demons.
- To have a little fun and a break from all the insanity out there.
- To learn how to wean ourselves off all those fancy expensive machines that go 'ping'.

Uncle Newt's Laws Overview

1. An object at rest and in motion will remain in that state unless acted upon by an external force.

NOTE:

2. FMA
3. Acty

To Don!
Best wishes,
Your Friendly,
Isaac



at rest
remain
unless

Daryl Overview

- I believe in FULL student-centric inquiry.
- Now, **YOU** meander around the room and play.
 - Simply decide which of Uncle Newton's Laws each 'demo' primarily deals with.

Videos in Science

- Can't post videos due to copyright issues.
- If you want any of the following, email me
 - Daryl@DarylScience.com or DT@DTFizzix.com
 - German kids with motorcycle & merry-go-round
 - Bicycle race accident
 - Swedish kids doing tablecloth trick
 - *Angry Birds* video
 - French Telescope lens commercial
 - World Series Infrared playback (Beltran's foul ball)
 - German "What are you sinking about?" commercial.
 - Canada's WestJet Helium-filled jets commercial

Trivia Prize #1

- (2) NASA Freeze-Dried Astronaut Ice-Cream! Oh, YUM!
- Name all the states of the US that begin & end in the same letter.
- *Alabama, Alaska, Arizona, Ohio*

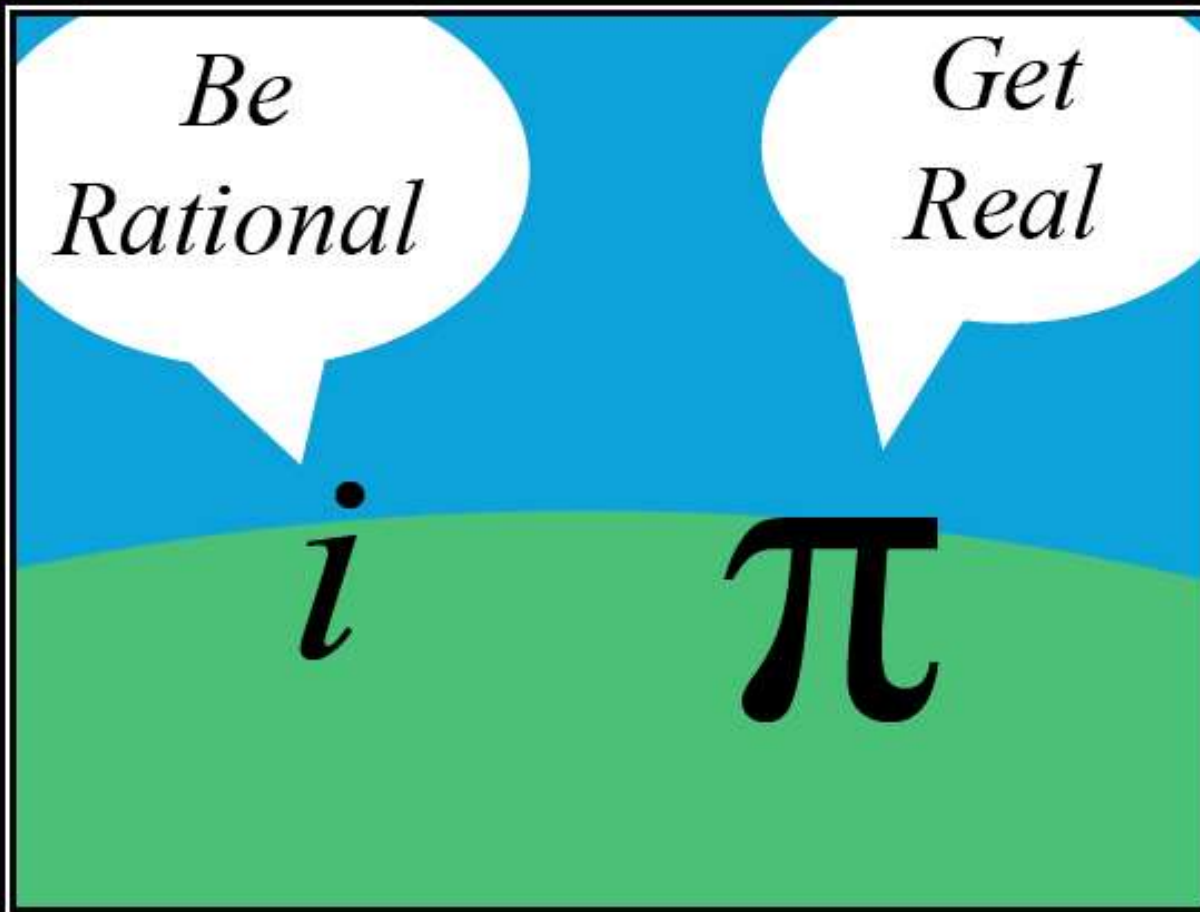


Physics
Resistance is Futile.



INERTIA

Your truck has brakes...the massive hunk of stone doesn't



MATH JOKES

If you get them, you probably don't have any friends.

Newton's Laws Activities

1. Card 'N Coin

1st

Newton's Laws Activities

2. Skates

1-3

Newt's Laws Activities

3. Tug-O-War

3rd

Newton's Laws Activities

4. Thought Experiment

3rd



Trivia Prize #2

- Digital Photo Key Chain!
- How many of the Top Ten all time best selling videos does Disney own?.
- 7

Newt's Laws Activities

5. Stomp Rocket (Ain't a 'rocket')

2 & 3

Newton's Laws Activities

6. m-stick Break

1 & 2

Newton's Laws Activities

7. Mickey Ears

1st



MICKEY!

My Hero !!!





Trivia Prize #3

- (2 more) NASA Freeze-Dried Astronaut Ice Cream!
- The name of the wizard in Disney's ***Sorcerer's Apprentice*** starring Mickey.
- *Yensid.*

Newt's Laws Activities

8. Totem Poles

1st

Newton's Laws Activities

9. Balloons

All st

Newton's Laws Activities

10. Tablecloth Trick

1st

Newt's Laws Activities

11. Pop-Up Monsters

1st

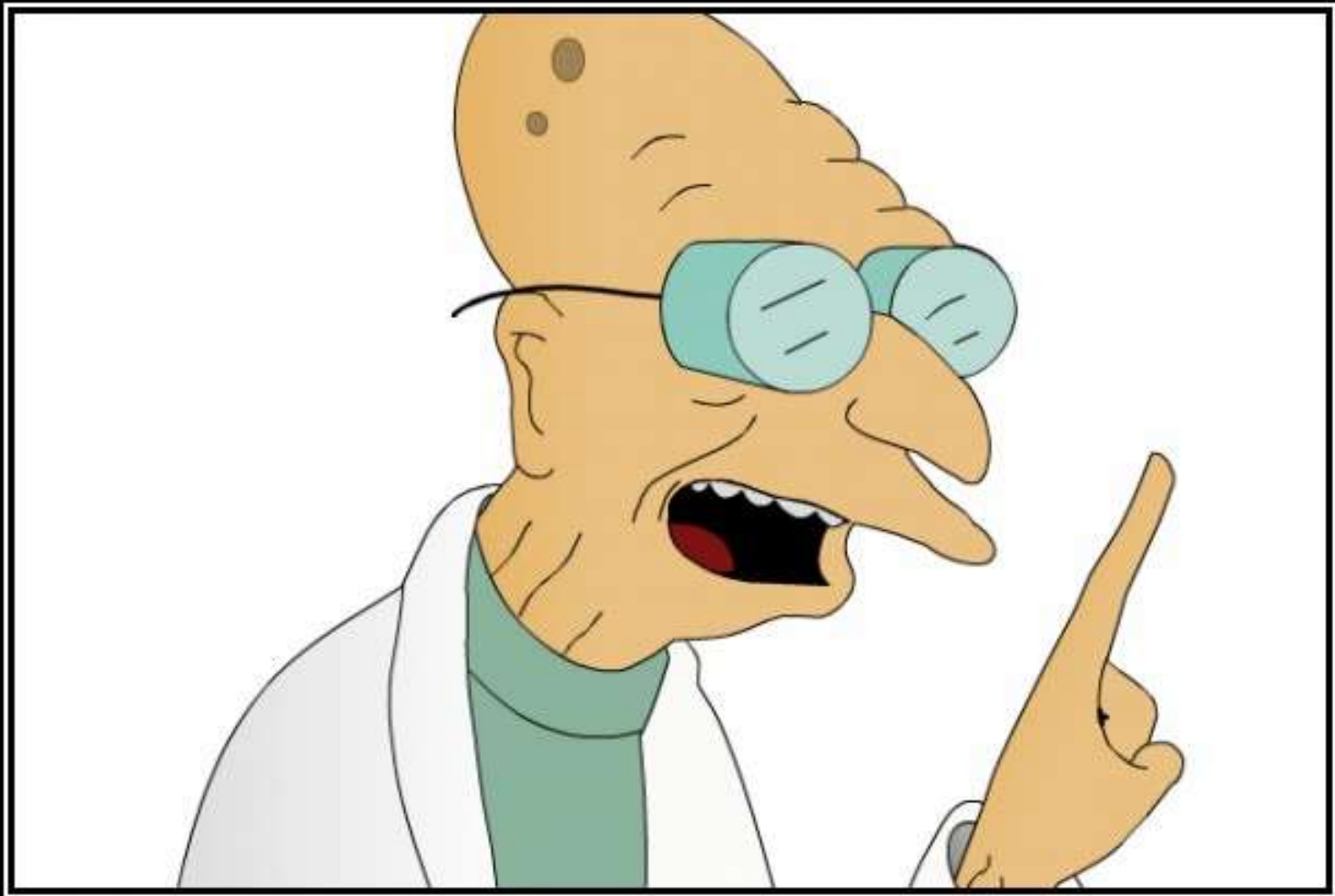
Trivia Grand Prize

- Galileoscope!
- Isaac Newton considered this his “greatest accomplishment” just before his death.
- *He died a virgin. “I never succumbed to the temptation of the flesh.”*

Newt's Laws Activities

\$10 Hovercraft

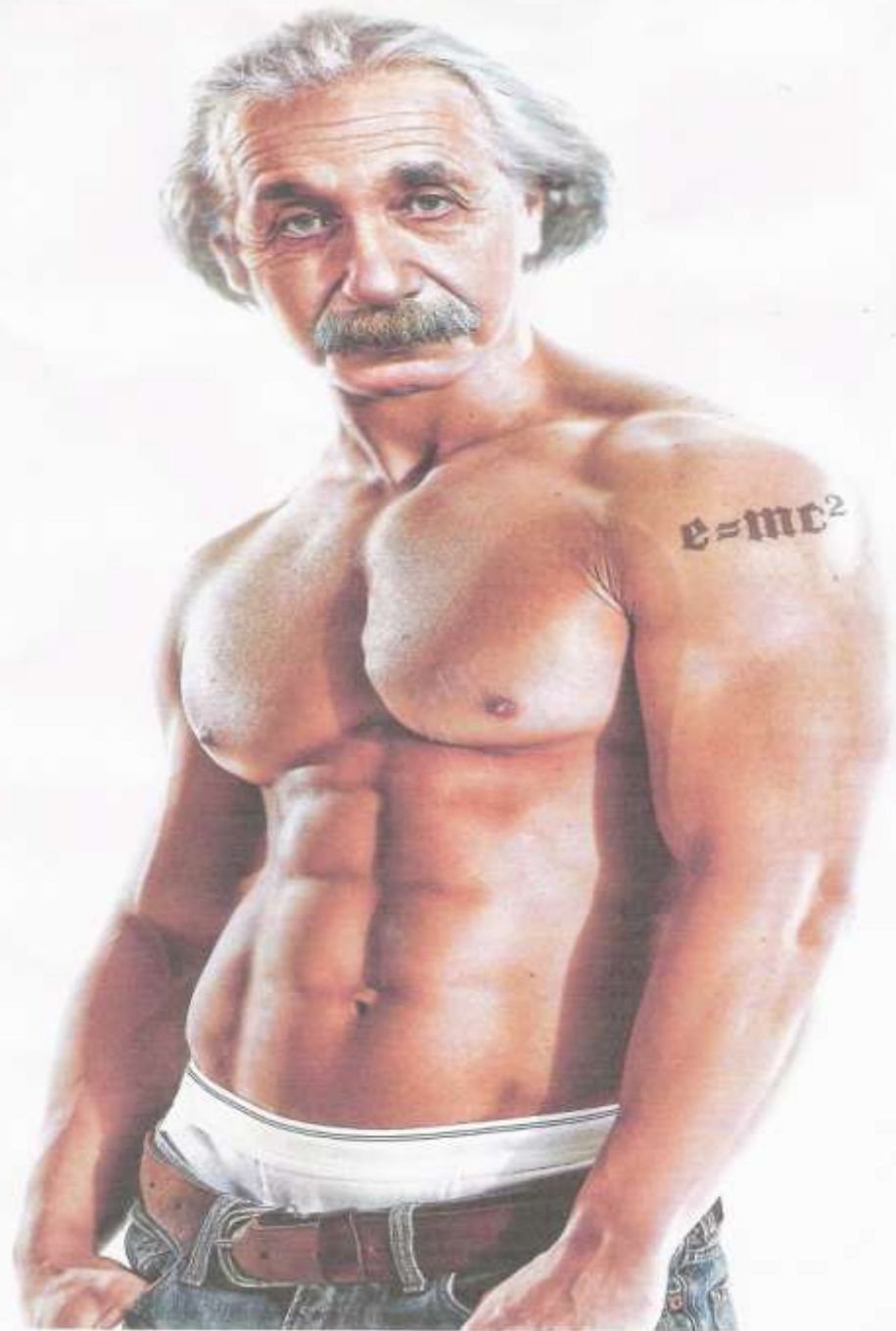




GOOD NEWS EVERYONE!

I've invented a device which makes you read this in your head, in my voice!

Who says
SCIENCE can't
be sexy?



More Newt's Laws Activities?

- Sitting
- Walking
- Standing

Misc Fun Demos

- Invisibility
- UV Effects
- IR Effects
- Doppler Gun
- Remote

Newt's Laws Activities



Internal Revenue Service

DEPARTMENT OF THE TREASURY

IRS

1040EZ2DO - Tax Form

New Simplified Tax Form for 2011

1. How Much Money Did You Make? \$ _____

2. Send It to Us.





The Stupid, It Burns

Newton's Laws Activities



Newton's Laws Activities



Newt's Laws Activities



19 Gears





Daryl,
Thanks for
the ideas!
-al
##

<http://fermi.sonoma.edu/education/>

PPT Presentation @
www.DarylScience.com