

COMPLETE LIST OF JAMES LINCOLN VIDEOS: Updated 8/31/2020

Mechanics & Astronomy

Best Fit Lines: <http://www.youtube.com/watch?v=WDdT63Jp1cA>

Mini Projectile Launcher: https://www.youtube.com/watch?v=LpFPWu_QLI0

5 Experiments with the Air Powered Projectile: <https://www.youtube.com/watch?v=1wYZNsrtfy4>

Lecture: Circular Motion Examples: <http://www.youtube.com/watch?v=oxUhQnFz5iM>

Lecture: Energy Conservation Examples: http://www.youtube.com/watch?v=p_Vogm4Wx3Y

Lecture: Simple Harmonic Motion & Springs: <http://www.youtube.com/watch?v=ScmxwJaj-6s>

Lecture: Acceleration & Velocity Graphs: <http://www.youtube.com/watch?v=igR7xtpNJXw>

Newton's Laws Revisited: <https://www.youtube.com/watch?v=QpVJ0IssZcI>

The Apple Super Nova: https://www.youtube.com/watch?v=BTjq_1S_ms8

Measurements & Units in Physics: <https://www.youtube.com/watch?v=67trxVkh7gE>

The Physics of Osmos (game): <https://www.youtube.com/watch?v=-z5trunMqO0>

The Centripetal Force/Spill Not: <http://www.youtube.com/watch?v=qEDvmvBbDBk>

Racing Marbles Demo: <https://www.youtube.com/watch?v=loekdN6YKAs>

Isaac Newton's Home: <http://www.youtube.com/watch?v=VupFDDrX0Rw>

Digital Newton's Meter: <https://www.youtube.com/watch?v=-7-35mlJW2c>

Forces on an Incline Apparatus: <https://www.youtube.com/watch?v=ztmrT1eybOg>

Teaching About Inclines: <https://www.youtube.com/watch?v=QXoynkSeZdw>

The Jackalope Story (speed graphs): <https://www.youtube.com/watch?v=0pNZKYHVILI>

Tipping Tower: <https://www.youtube.com/watch?v=VVBwUQF5zC>

Rotating Weights: https://www.youtube.com/watch?v=_BY3cJ_1-zQ

Rolling Uphill: <https://www.youtube.com/watch?v=-3Ylg7uoIZE>

Rotational Inertia Rulers and Clamps: <https://www.youtube.com/watch?v=Gn8ORCM-78w>

Equatorial Bulge: <https://www.youtube.com/watch?v=acoC8kaIYok>

Center Weighted Race: <https://www.youtube.com/watch?v=AE7BpI4Dtrs>

Center of Mass Meter Stick: <https://www.youtube.com/watch?v=6ya1QNYc2dU>

Bicycle Wheel Angular Momentum: <https://www.youtube.com/watch?v=5fwbARwLtQQ>

Balancing Rod: <https://www.youtube.com/watch?v=z5eelrxXEWs>

iPhone Slow Motion: <https://www.youtube.com/watch?v=yJ6IQhDvTmA>

*Up Down Dizzy: <https://www.youtube.com/watch?v=W4mjjJsZVL0>

7 Energy and Momentum Demos: https://www.youtube.com/watch?v=_DA9_Hd372I

* Hosted by Anna Spitz, written & Directed by James Lincoln

Waves and Sound

Tuning Fork in Slow Motion vs Water: <https://www.youtube.com/watch?v=B0AKuxTEDQg>

Standing Waves: https://www.youtube.com/watch?v=j_z88-vvz48

Physics of the Electric Guitar: <http://www.youtube.com/watch?v=1P1Xx-W7u-k>

Tube Resonance – Standing Sound Waves: <http://www.youtube.com/watch?v=bHdHaYNX4Tk>

Ten Experiments with Tuning forks: <https://www.youtube.com/watch?v=vNuDxc9tZMk>

Piezo Buzzer in a Vacuum: <https://www.youtube.com/watch?v=u4pzfPkM19s>

Sound and Wave Demonstrations: <https://www.youtube.com/watch?v=De1J2V0Cta4>

Speed of Sound Depends on Medium: <http://www.youtube.com/watch?v=GkiZhieigqE>

Beats Physics: http://www.youtube.com/watch?v=-lA1jYhs_Xw

General Properties of Sound: http://www.youtube.com/watch?v=wG0y18KG_I

Sound in a Vacuum: <http://www.youtube.com/watch?v=HYcnjPrRUs8>

Wavelength of Sound: <http://www.youtube.com/watch?v=B7cVrauDzBQ>

Wave Reflection & Standing Waves: <http://www.youtube.com/watch?v=-n1d1rycvj4>

Musical Instruments and Timbre: <http://www.youtube.com/watch?v=JHJtRrrCvMM>

Sulfur Hexafluoride and Helium: <https://www.youtube.com/watch?v=EA9QU0rdb9k>

*Sulfur Hexafluoride vs Girl: <https://www.youtube.com/watch?v=yDFgytoiGUw>

*Hear Your Muscles: <https://www.youtube.com/watch?v=B5xlLaO8e-A>

*Easy Beats: <https://www.youtube.com/watch?v=i886Lbjbl9k>

*Hearing Ultrasonic: https://www.youtube.com/watch?v=cNO_a5qtRRE

*Audio Triangulation: <https://www.youtube.com/watch?v=Cm9op7DwJwA>

*Singing Happy Birthday: https://www.youtube.com/watch?v=xrUYg_fHZyI

*Physics of Music and Harmony: <https://www.youtube.com/watch?v=0RFIHKP-ZO8>

Compilation, etc

Top Ten Physics Demos You're Not Doing! <https://www.youtube.com/watch?v=QjX01-JH0is>

5 First Day Science Demos: <https://www.youtube.com/watch?v=J-asmApAvQs>

*Welcome Episode: <https://www.youtube.com/watch?v=BfzQ9LgNCCo>

Light and Color

The Radiometer – See the Energy of Light!: <https://www.youtube.com/watch?v=I4sIU2YWzeA>
InfraRed Revisited: <https://www.youtube.com/watch?v=sd39bnYVEI8>
*Blue Sky in a Cup: <https://www.youtube.com/watch?v=5B-qrEdQvIU>
Can Dogs See Color?: <https://www.youtube.com/watch?v=QVjeeJrE4Q0>
Why is the Sky Blue? <https://www.youtube.com/watch?v=gUgDtWANJ18>
Analyzing Light & Spectrum: <http://www.youtube.com/watch?v=KDJayYXpark>
Physics of 3D Movies: <http://www.youtube.com/watch?v=B9oZ1-2L6vc>
Measure the Speed of Light: <http://www.youtube.com/watch?v=8kQdJ-XJt98>
Light is an Electromagnetic Wave: <http://www.youtube.com/watch?v=CEhBc48IScU>
Additive & Subtractive Light & Color: http://www.youtube.com/watch?v=Er7CM_RNFZ4
Laser Fest (lasers explained): <https://www.youtube.com/watch?v=hhthN6m48Vw>
Sunset Egg Explained: <https://www.youtube.com/watch?v=5h5ntWDMCgQ>
Magic Egg Short Version: <https://www.youtube.com/watch?v=mVipd8TkM2A>
*How to See Your Retina: <https://www.youtube.com/watch?v=BIi0CLwXObc>
*Sunset Egg Commercial (ANNA): <https://www.youtube.com/watch?v=JB1No8-Zprc>

Refraction, Diffraction & Polarization

Snell's Law - Refraction: <http://www.youtube.com/watch?v=Ves0l2CQLg4>
Schlieren Photography: <https://www.youtube.com/watch?v=Rtcq9KnPTus>
*Diffraction by Credit Card: <https://www.youtube.com/watch?v=XiJsUTzUj0I>
Light Wave Diffraction: <http://www.youtube.com/watch?v=kH57Di7Sj0c>
Diffraction Lab Question: <http://www.youtube.com/watch?v=duLxfGcFHic>
Measure the Wavelength of Laser Light: <http://www.youtube.com/watch?v=E-3uht9LAhM>
DNA X-Ray Diffraction: <http://www.youtube.com/watch?v=u7RrXAJuNRk>
Polarization of Light (with Experiments): <https://www.youtube.com/watch?v=Bf0NEe7FhyM>
Polarization Intro <http://www.youtube.com/watch?v=E9qpbt0v5Hw>
Circularly Polarized Light: <http://www.youtube.com/watch?v=ycY2mUZHS84>

Lenses and Mirrors

Mobile Phone Becomes Microscope: <http://www.youtube.com/watch?v=M24-IFuBrlA>
Concave & Convex Mirrors: <http://www.youtube.com/watch?v=jtTBOMVMSYM>
Lenses and the Human Eye: <http://www.youtube.com/watch?v=xPrJkXxbfTA>
*Newton's Eye Poke: <https://www.youtube.com/watch?v=W0HP0oEKOUE>
Introductory Optical System: <https://www.youtube.com/watch?v=AfLqWR95IcE>

Invisible Light

Mouse vs InfraRed Camera: <https://www.youtube.com/watch?v=Hke44B8VfGg>
Infrared Light Experiments: <http://www.youtube.com/watch?v=iOVZBJ8CuZU>
Do Cell Phones Cause Cancer?: <http://www.youtube.com/watch?v=0FTDWAXL3KI>
Ultraviolet Light & Willemite: <https://www.youtube.com/watch?v=X0VzNMIJtjs>
Anna Spitz Explains Willemite: <https://www.youtube.com/watch?v=5WqjbWL-sNQ>
UV Light Demonstrations: <https://www.youtube.com/watch?v=NJhuf0Um-Eo>

Static Electricity

Electric Field via Crystals: <https://www.youtube.com/watch?v=63FnT0W-Hxc>

Coulomb's Law: http://www.youtube.com/watch?v=B5LVoU_a08c

5 Rules of the Electric Field: <http://www.youtube.com/watch?v=DFIyXz6lO74>

5 Rules of Conductors: <http://www.youtube.com/watch?v=MktpqvO2brk>

Electric Field Detector: <https://www.youtube.com/watch?v=slsNkRNewO8>

Top 10 Plasma Globe Experiments: <https://www.youtube.com/watch?v=xZB6z3jObAU>

Electrostatic Genecon: <https://www.youtube.com/watch?v=II6O44oAC2E>

Lettuce Seed Electric Fields: <https://www.youtube.com/watch?v=q3Gb3RsRmfw>

Electrostatic Can Roll: <http://www.youtube.com/watch?v=4jXt9ufw9Q0>

Plasma Globe Demo: <http://www.youtube.com/watch?v=ZvZ8FWs7wMga>

10 Ways to See the Electric Field 1: <http://www.youtube.com/watch?v=Y6YdC2UoDYY>

10 Ways to See the Electric Field 2: <http://www.youtube.com/watch?v=bOLd2KVK-Mo>

Energy Stick: <https://www.youtube.com/watch?v=RYm3soCD9Jg>

Plasma Globe Revisited: <https://www.youtube.com/watch?v=nqBvy5Nb-7A>

Circuits, etc

Fundamentals of Electric Circuits: <https://www.youtube.com/watch?v=MMu-ZfdecBQ>

Physics of the Leiden Jar: <http://www.youtube.com/watch?v=e2EWeOVCO5o>

Circuit Elements: <http://www.youtube.com/watch?v=RpkAtMZTZQM>

Parallel & Series Circuits: <http://www.youtube.com/watch?v=Q0KVCKiPdh8>

Resistors: <http://www.youtube.com/watch?v=73QP8Luiz2I>

Visual Electricity Demonstrator: <https://www.youtube.com/watch?v=c5GGPWWYLN0>

*Diode vs Galvanometer – Anna: https://www.youtube.com/watch?v=VCfBiMjFd_o

Magnetism and Electromagnetism

Intro to Magnets: <https://www.youtube.com/watch?v=IKObSw06f3Y>

How do Magnets Work: <https://www.youtube.com/watch?v=jq8WOUFeCcg>

Genecon Hand Crank Generator: http://www.youtube.com/watch?v=JwuO9XrH_aI

Jumping Ring Apparatus: <http://www.youtube.com/watch?v=G0sTOcyhcFM>

Coupled Jumping Rings: <https://www.youtube.com/watch?v=3sEDHjZauo4>

Transformers – Experiments & Demos: <http://www.youtube.com/watch?v=y0WrKT45ZZU>

The Lorentz Force and the Right Hand Rule: http://www.youtube.com/watch?v=z2kY_Q_b634

5 Fresh Lorentz Force Demos: <https://www.youtube.com/watch?v=pHLqullaKy0>

Paramagnetism and Diamagnetism: <http://www.youtube.com/watch?v=u36QpPvEh2c>

Diamagnetic Hoverboard: <https://www.youtube.com/watch?v=eT0ipF6W73I>

Three Right hand rules of Electromagnetism: <https://www.youtube.com/watch?v=vGPYco-doSg>

Fluids, Heat, Pressure, etc

Smoke Rings & Mushroom Clouds: <https://www.youtube.com/watch?v=gjg04wuvVYg>

Calories From a Heat Pack: <https://www.youtube.com/watch?v=JE2gjgoSn9k>

Air is Matter Contest: <https://www.youtube.com/watch?v=iVCUG7oVY8k>

3 Temperature Scales: <http://www.youtube.com/watch?v=lsgwZ9-Fi4w>

Water Hammer Demo: <http://www.youtube.com/watch?v=Kb6feUfHgAU>

Gas Law Experiments: <https://www.youtube.com/watch?v=Y7mVoyLHcy4>

Examples of Condensation: <https://www.youtube.com/watch?v=zvS-nDJcQm4>

Demos with Heat Sensitive Sheet: https://www.youtube.com/watch?v=envfL4_nH0w

Modern & Nuclear

Demonstrations of the Photoelectric Effect: <https://www.youtube.com/watch?v=l-gwAs2ApPw>

Super Conductors in the HS Classroom: <https://www.youtube.com/watch?v=-lPJtuVrOLc>

Planck's Constant Apparatus: <https://www.youtube.com/watch?v=kg42ZH4jZok>

Radiation Test off So Cal Coast: <https://www.youtube.com/watch?v=z2p1uMdzhdQ>

Anatomy of the Proton: <https://www.youtube.com/watch?v=FcktpqqhvrQ>

Complete Superconductivity Kit: <https://www.youtube.com/watch?v=02S5dAq1IkM>

Photoelectric Effect Demo: <https://www.youtube.com/watch?v=z-3XaXCvjZw>

Other Sciences / General Physics

Physics Experiments you can do at Home: <https://www.youtube.com/watch?v=TomfykvkAac>

Demo Show 1: <http://www.youtube.com/watch?v=lixw-q6Wj7Y>

Demo Show 2: <http://www.youtube.com/watch?v=UITxG1pnCe4>

Space Shuttle: <http://www.youtube.com/watch?v=TxRIDTG6-ZQ>

Experiments with Eggs: <https://www.youtube.com/watch?v=q2pKWRcIfc0>

pH Scale Experiments: <https://www.youtube.com/watch?v=K3A5yIAJys0>

Experiments on the Body: <https://www.youtube.com/watch?v=IxruLovVcf4>

Science Demos for Middle School: <https://www.youtube.com/watch?v=iZagjcXNbLk>

Does Mass Change in a Physical Change: <https://www.youtube.com/watch?v=t2JS64eXeTY>

What can be learned from the name of an enzyme: www.youtube.com/watch?v=SJaDBDRhfEo

2 ways Catalysts affect Chemical Reactions: www.youtube.com/watch?v=EHSrkr-6ZYs

Buffer Solutions Important in Biology: <https://www.youtube.com/watch?v=3oTbgE88PMI>

How Small is a Cell?: <https://www.youtube.com/watch?v=ogDZ-TrUo-4>

Burn Test for Carpets: <https://www.youtube.com/watch?v=YAjaokJxecc>

Identify an Element by its Mass Number: <https://www.youtube.com/watch?v=oUC9EZTfGGI>

James Lincoln on Ancient Aliens: https://www.youtube.com/watch?v=r1b-dY_TEnw