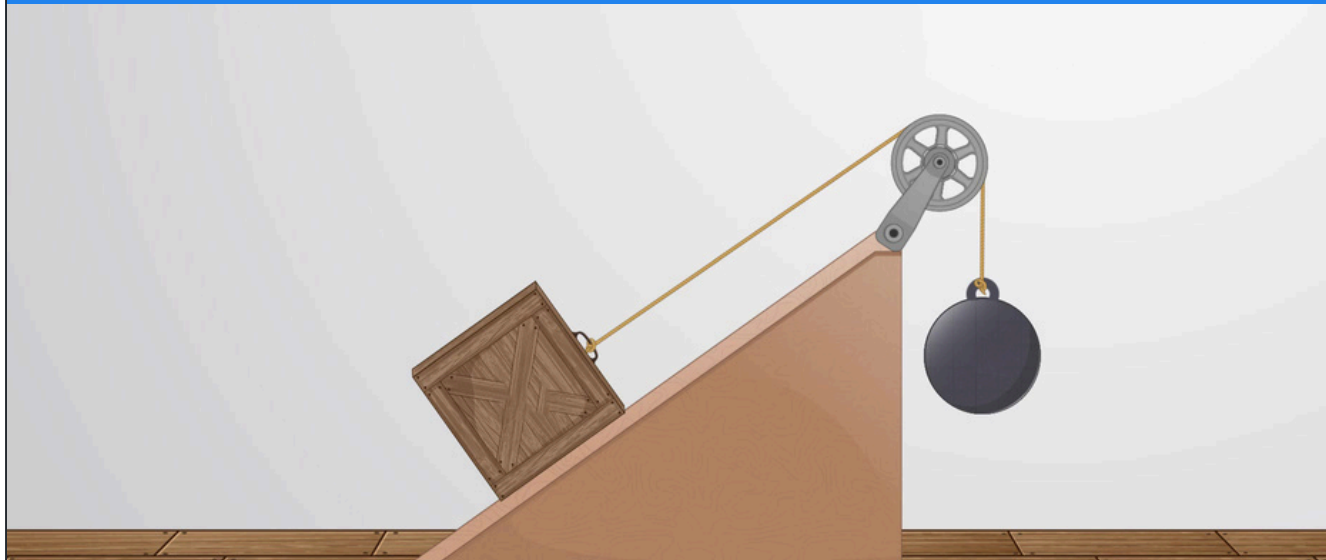


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# PHYSICS



**3**

Topics



**400+**

Lessons



**99**

Scientist-In-Action  
Videos



## Core Learning Objectives

Master unit conversions, assess measurement accuracy, and identify errors.

Understand vectors, scalars, and applications of divergence and Stoke's theorem.

Describe motion in one and two dimensions, applying Newton's laws.

Solve problems involving forces, work, and conservation of energy.

Grasp rotational dynamics, fluid properties, laws of gravitation, and wave phenomena.

Master principles of electricity, magnetism, circuits, and electromagnetic waves.

# 01

## JoVE Core: Physics

### List of Chapters

- 1.1 Units, Dimensions, And Measurements
- 1.2 Vectors And Scalars
- 1.3 Motion Along A Straight Line
- 1.4 Motion In Two Or Three Dimensions
- 1.5 Newton'S Laws Of Motion
- 1.6 Application Of Newton'S Laws Of Motion
- 1.7 Work And Kinetic Energy
- 1.8 Potential Energy And Energy Conservation
- 1.9 Linear Momentum, Impulse And Collisions
- 1.10 Rotation And Rigid Bodies
- 1.11 Dynamics Of Rotational Motions
- 1.12 Equilibrium And Elasticity
- 1.13 Fluid Mechanics
- 1.14 Gravitation
- 1.15 Oscillations
- 1.16 Waves
- 1.17 Sound
- 1.18 Temperature And Heat
- 1.19 The Kinetic Theory Of Gases
- 1.20 The First Law Of Thermodynamics
- 1.21 The Second Law Of Thermodynamics
- 1.22 Electric Charges And Fields
- 1.23 Gauss'S Law
- 1.24 Electric Potential
- 1.25 Capacitance
- 1.26 Current And Resistance
- 1.27 Direct-Current Circuits
- 1.28 Magnetic Forces And Fields
- 1.29 Sources Of Magnetic Fields
- 1.30 Electromagnetic Induction
- 1.31 Inductance
- 1.32 Alternating-Current Circuits
- 1.33 Electromagnetic Waves

# 02

## Basic Biology.

### List of Topics

- 2.1 Lab Safety

# 03 Physics

## List of Topics

3.1 Physics I

3.2 Physics II

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# PHYSICS

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