

topic	illustrative
CHAPTER 1(PHYSICAL WORLD)	
What is physics?	http://www.youtube.com/watch?v=UZtqpRIiKt&feature=list_related&playnext=1&list=SP8C761F028F7473A0
Scope and excitement of physics	http://www.youtube.com/watch?v=RcEvEjtsPXI&feature=bf_next&list=SP8C761F028F7473A0&lf=list_related
Physics,technology and society	
Fundamental forces in nature	http://www.youtube.com/watch?v=klwkbAaGnKw&feature=bf_next&list=SP8C761F028F7473A0&lf=list_related
	-
	-
	-
CHAPTER 2 (UNIT AND MEASUREMENT)	http://www.youtube.com/watch?v=Rmy85_EwLOY&feature=bf_prev&list=SP3E832B63AE341640&lf=list_related
Need for measurement: Units of measurement,system of units,SI units	
Fundamental and derived units	
Length, mass and time measurement	http://www.youtube.com/watch?v=l23HvdjDhc8&feature=bf_next&list=SP3E832B63AE341640&lf=list_related
	-
Accuracy,precision of instrument	http://www.youtube.com/watch?v=zogKHNdézPk&feature=bf_next&list=SP3E832B63AE341640&lf=list_related
error in measurement	http://www.youtube.com/watch?v=n0EydO6sEqI&feature=bf_next&list=SP3E832B63AE341640&lf=list_related
significant figure	http://www.youtube.com/watch?v=P0fl53svHDE&feature=bf_next&list=SP3E832B63AE341640&lf=list_related
	-
dimensions of a physical quantity	http://www.youtube.com/watch?v=xp_W3gkoZK4&feature=bf_next&list=SP3E832B63AE341640&lf=list_related
	-
CHAPTER 3(MOTION IN STRAIGHT LINE)	http://www.youtube.com/watch?v=lAcLN9uDsby&feature=bf_prev&list=SPDC2010EE9BC53FFD&lf=list_related
Frame of reference	
Position, path length and displacement	http://www.youtube.com/watch?v=oFwBPis7OaY&feature=bf_next&list=SPDC2010EE9BC53FFD&lf=list_related
Position-time graph,speed and velocity.	http://www.youtube.com/watch?v=zNaQ8IB1PZA&feature=bf_next&list=SPDC2010EE9BC53FFD&lf=list_related
Average velocity and speed	http://www.youtube.com/watch?v=EBTwwZ9cqITY&feature=bf_next&list=SPDC2010EE9BC53FFD&lf=list_related
Instantaneous velocity and speed	http://www.youtube.com/watch?v=0rUb4xTmKzg&feature=bf_next&list=SPDC2010EE9BC53FFD&lf=list_related
Acceleration,equation for uniformly accelerated motion,Relative velocity	http://www.youtube.com/watch?v=TiqIgaRIqVw&feature=bf_next&list=SPDC2010EE9BC53FFD&lf=list_related
	-
	-
	-
CHAPTER 4(MOTION IN PLANE)	
Scalar and vector quantities	http://www.youtube.com/watch?v=KR0YcsACAmo&feature=list_related&playnext=1&list=SPC70CD83F937574AB
Position and displacement vectors,	http://www.youtube.com/watch?v=NkkILjNz9hc&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related

Addition and subtraction of vectors - graphical method	http://www.youtube.com/watch?v=iPxZ3sbzEYQ&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
general vectors and notation, equality of vectors	http://www.youtube.com/watch?v=-xzQl4OqPv0&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
general vectors and notation, equality of vectors	http://www.youtube.com/watch?v=-xzQl4OqPv0&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
Multiplication of vector by a real number	
Unit vector,;equal vector	http://www.youtube.com/watch?v=QxEnx_6qraY&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
Resolution of a vector in a plane	http://www.youtube.com/watch?v=0QQUn1ZOc-g&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
relative velocity	http://www.youtube.com/watch?v=0aQyKZC7QnM&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
Projectile motion	http://www.youtube.com/watch?v=CWVWuRwDOyY&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
Uniform circular motion	http://www.youtube.com/watch?v=534aV2naEKI&feature=bf_next&list=SPC70CD83F937574AB&lf=list_related
CHAPTER5(LAWS OF MOTION)	
concept of force. Inertia	http://www.youtube.com/watch?v=3JwmchAMcuQ&feature=list_related&playnext=1&list=SPE4EA4B34F57C8FAE
first law of motion; momentum	http://www.youtube.com/watch?v=1k_qyNcPY1w&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
; momentum	http://www.youtube.com/watch?v=7olywopxSAo&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
Newton's second law of motion; impulse	http://www.youtube.com/watch?v=XINIWuFQPo&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
; Newton's third law of motion.	http://www.youtube.com/watch?v=CSURUfoZYFM&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
Law of conservation of linear momentum and its applications.	http://www.youtube.com/watch?v=IWvTskS3hZM&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
statics friction	http://www.youtube.com/watch?v=-V-O-Av_Sw0&feature=bf_prev&list=SPE4EA4B34F57C8FAE&lf=list_related
kinetic friction	http://www.youtube.com/watch?v=humzEzGL7vo&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
, rolling friction	http://www.youtube.com/watch?v=xgZUN2FCNbY&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related

Dynamics of uniform circular motion:	http://www.youtube.com/watch?v=9nD8ke1ACYQ&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
Centripetal force,	
examples of circular motion	http://www.youtube.com/watch?v=TI5Uy2qCnMY&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
(vehicle on level circular road, vehicle on banked road).	http://www.youtube.com/watch?v=Ss65Q6XDXQs&feature=bf_next&list=SPE4EA4B34F57C8FAE&lf=list_related
Chapter 6	
(work ,energy and power)	
introduction	http://www.youtube.com/watch?v=Z42ZRC-iwtg&feature=list_related&playnext=1&list=SPA25F99852B2A9085
scalar product	http://www.youtube.com/watch?v=nQcu7dUvmV8&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
Work and kinetic energy	http://www.youtube.com/watch?v=u7vZP3WpR08&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
	http://www.youtube.com/watch?v=wOqsrYekUko&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
The work energy theorem	http://www.youtube.com/watch?v=RvtoXS-ZmRA&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
The concept of potential energy	http://www.youtube.com/watch?v=S4fcH1yIwvw&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
	http://www.youtube.com/watch?v=mbkBFpx6JH8&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
	http://www.youtube.com/watch?v=0eMw8U12pEo&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
The conservation of mechanical	http://www.youtube.com/watch?v=dl13btBmluA&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
energy	
conservative and non conservative forces	http://www.youtube.com/watch?v=5DMxzfV1rQ&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
The potential energy of aspring	http://www.youtube.com/watch?v=6GA-Vweieng&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
Various form of energy	http://www.youtube.com/watch?v=GPX8jrG8jbg&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
Power	http://www.youtube.com/watch?v=4xPNtaAWWo&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
Collision	http://www.youtube.com/watch?v=d7h17UxbTzA&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
inelastic collision in 1 dim	http://www.youtube.com/watch?v=SVj5h7VOYj0&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
elastic collision in 1 dim	http://www.youtube.com/watch?v=rSXbPEVAKd0&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related
elastic collision in 2 dim	http://www.youtube.com/watch?v=Dz9GBknusxM&feature=bf_next&list=SPA25F99852B2A9085&lf=list_related

CHAPTER 8(GRAVITATION)	
Introduction	http://www.youtube.com/watch?v=yCsB9x0BSHU&feature=related
The gravitation constant	http://www.youtube.com/watch?v=iPj_4NOXy9U&feature=bf_next&list=SPD526923A42BFF0DE&lf=list_related
Acceleration due to gravity of the earth	http://www.youtube.com/watch?v=77eN5b3VEN4&feature=bf_next&list=SPD526923A42BFF0DE&lf=list_related
Acceleration due to gravity below and above the surface of earth.	http://www.youtube.com/watch?v=w3U717ZdSms&feature=autoplay&list=SPD526923A42BFF0DE&lf=list_related&playnext=1
inertial and gravitational mass	http://www.youtube.com/watch?v=isr70adqa4Y&feature=bf_next&list=SPD526923A42BFF0DE&lf=list_related
Gravitation potential energy	http://www.youtube.com/watch?v=wdMpWWYHG5U&feature=bf_next&list=SPD526923A42BFF0DE&lf=list_related
Kepler's law	http://www.youtube.com/watch?v=ANh9DKHtqRg&feature=bf_next&list=SPD526923A42BFF0DE&lf=list_related
Escape speed	http://www.youtube.com/watch?v=umUB88iw77U&feature=bf_next&list=SPD526923A42BFF0DE&lf=list_related
Earth satellite.	http://www.youtube.com/watch?v=cKP9dXmwhgs&feature=bf_next&list=SPD526923A42BFF0DE&lf=list_related
Geostationery and polar satellite	http://www.youtube.com/watch?v=3_Tn41TTTfo&feature=bf_prev&list=SPD526923A42BFF0DE&lf=list_related
Weightlessness	
CHAPTER9(MECHANICAL PROPERTIES OF SOLIDS)	
Elastic behavior of solids	http://www.youtube.com/watch?v=ZX74aV_WBpl&feature=list_related&playnext=1&list=SPF8B4F088B27F7590
Stress and strain	http://www.youtube.com/watch?v=Gm4DbtMSNWg&feature=bf_next&list=SPF8B4F088B27F7590&lf=list_related
	http://www.youtube.com/watch?v=rxHl1sJKDpU&feature=bf_next&list=SPF8B4F088B27F7590&lf=list_related
Hooke'slaw	http://www.youtube.com/watch?v=LbDIPUGgYjo&feature=bf_next&list=SPF8B4F088B27F7590&lf=list_related
Stress and strain curve	http://www.youtube.com/watch?v=ZSlrGv4-Ndg&feature=bf_next&list=SPF8B4F088B27F7590&lf=list_related
Elastic module.	http://www.youtube.com/watch?v=tr0iLeikLX0&feature=bf_next&list=SPF8B4F088B27F7590&lf=list_related
Chapter 10(mechanical properties of fluid)	
introduction	http://www.youtube.com/watch?v=GOATsvu0uCM&feature=list_related&playnext=1&list=SPCCB7DE1BFC53E488
pressure	http://www.youtube.com/watch?v=OWncPcn81GE&feature=autoplay&list=SPCCB7DE1BFC53E488&lf=list_related&playnext=2
Pascal's law	http://www.youtube.com/watch?v=jnvb8B99ZMw&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
hydraulic lift	http://www.youtube.com/watch?v=Hh7TfJpMAhg&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
hydraulic brake	http://www.youtube.com/watch?v=Lqx0721lyl4&feature=bf_prev&list=SPCCB7DE1BFC53E488&lf=list_related

Effect of gravity on fluid pressure.	http://www.youtube.com/watch?v=3cBbrK90Gm8&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
atmospheric pressure and its measurement	http://www.youtube.com/watch?v=N4awnV1YLSU&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
guage pressure and its measurement	http://www.youtube.com/watch?v=fUVni-MkmSU&feature=autoplay&list=SPCCB7DE1BFC53E488&lf=list_related&playnext=1
streamline and turbulent flow	http://www.youtube.com/watch?v=9jarHVb0sOs&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
turbulent flow	http://www.youtube.com/watch?v=4h9J-BJNiV&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
equation of continuity	http://www.youtube.com/watch?v=Zf9kn0_ulk0&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
Bernoulli's principle	http://www.youtube.com/watch?v=XP38Om2cL1c&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
	-
	-
torricelli law	http://www.youtube.com/watch?v=N8H0We69KwI&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
venturimeter	http://www.youtube.com/watch?v=ooeHopXa6rw&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
dynamic lift	http://www.youtube.com/watch?v=Z_e7FLFQXrc&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
magnus effect	http://www.youtube.com/watch?v=tr4EyzRhgdY&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
viscosity	http://www.youtube.com/watch?v=trSnXSwIoJY&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
stokes law	http://www.youtube.com/watch?v=KnFDEboOjp8&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
terminal velocity	http://www.youtube.com/watch?v=XtJlGsb3Us&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
Reynold's number	http://www.youtube.com/watch?v=Gn9tY1myNe8&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
Surface energy	http://www.youtube.com/watch?v=hYofLHkoCOY&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
surface tension	http://www.youtube.com/watch?v=LK9zfOXBs-Y&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
application of surface tension	http://www.youtube.com/watch?v=fp10Jb8BK_M&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
angle of contact	http://www.youtube.com/watch?v=WSPRBKwe6W8&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
drops, bubbles and capillary rise	http://www.youtube.com/watch?v=xn6EkLUqs6c&feature=bf_next&list=SPCCB7DE1BFC53E488&lf=list_related
Chapter11(Thermal properties of matter)	
Introduction	http://www.youtube.com/watch?v=CrIno4pgC5Y&feature=list_related&playnext=1&list=SPB89082F18815FAA8
Temperature and heat	http://www.youtube.com/watch?v=CrIno4pgC5Y&feature=list_related&playnext=1&list=SPB89082F18815FAA8
Measurement of temperature	http://www.youtube.com/watch?v=bQVmn4llZ0&feature=relmfu
Ideal gas equation and absolute temperature.	http://www.youtube.com/watch?v=o13_vvE9wH4&feature=relmfu
Thermal expansion	http://www.youtube.com/watch?v=24nTM3_DAY8&feature=relmfu
Specific heat capacity	http://www.youtube.com/watch?v=nReBVR87wZA&feature=relmfu
calorimeter	http://www.youtube.com/watch?v=xPgQdYvkV6Q&feature=relmfu
Change of state	http://www.youtube.com/watch?v=2pKNqUUHsHM&feature=relmfu
Heat transfer	http://www.youtube.com/watch?v=m1DBdEhBNwc&feature=relmfu
newton law of cooling	http://www.youtube.com/watch?v=vg5MBivnBc0&feature=relmfu
	-

Chapter 12(Thermodynamics)	
Introduction	http://www.youtube.com/watch?v=sCjVMMe_w0g&feature=related
Thermal equilibrium	http://www.youtube.com/watch?v=vcgYQ-u7qfc&feature=related
Zeroth law of thermodynamics	http://www.youtube.com/watch?v=GKqG6n6nAmg&feature=related
Heat	http://www.youtube.com/watch?v=r62qeRcoJyw&feature=relmfu
internal energy and work	http://www.youtube.com/watch?v=2ITmmdNHnsk&feature=relmfu
First law of thermodynamics	http://www.youtube.com/watch?v=3lrakjtd1hU&feature=related
Specific heat capacity	http://www.youtube.com/watch?v=pUKqUnJA33M&feature=related
Heat engine	http://www.youtube.com/watch?v=DHUwFuHuCdW&feature=related
Refrigerator and heat pump	
Second law of thermodynamics	http://www.youtube.com/watch?v=CONBosKaznA&feature=related
carnot engine	http://www.youtube.com/watch?v=kJlMRT4E6R0&feature=related
	http://www.youtube.com/watch?v=s3N_QJVucF8&NR=1&feature=endscreen
Chapter 13(Kinetic theory)	
Introduction	http://www.youtube.com/watch?v=clUhMDBU3aw&feature=list_related&playnext=1&list=SP35B1F31987FA9742
Kinetic theory of ideal gas	http://www.youtube.com/watch?v=0sNoJCxwQlc&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
pressure exerted by molecule of an ideal gas molecules	http://www.youtube.com/watch?v=tkZOGKx0IU&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
kinetic interpretation of temperature	http://www.youtube.com/watch?v=vkPmS9_ITYU&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
derivation of ideal gas law from ideal gas equation	http://www.youtube.com/watch?v=MBXXTMbS2h0&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
degree of freedom	http://www.youtube.com/watch?v=1G5VFORoLhg&feature=bf_prev&list=SP35B1F31987FA9742&lf=list_related
translation degree of freedom	http://www.youtube.com/watch?v=iaOyKspW-rM&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
rotation degree of freedom	http://www.youtube.com/watch?v=oOhRAeYO6J4&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
vibration degree of freedom	http://www.youtube.com/watch?v=wQ1r50QcYT8&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
law of equipartation of energy	http://www.youtube.com/watch?v=osvJ8Tyv-2c&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
specific heat capacity for monoatomic gas	http://www.youtube.com/watch?v=AaJB6BbsSn0&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
specific heat capacity for diatomic gas	http://www.youtube.com/watch?v=JkWtzaUBaE4&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
specific heat capacity for triatomic gas	http://www.youtube.com/watch?v=VI21a_yPXS8&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related
mean free path	http://www.youtube.com/watch?v=i2usnsVrgCw&feature=bf_next&list=SP35B1F31987FA9742&lf=list_related