Physics Playlist:

Ch 1: sig figs –

1.1 Accuracy Precision : https://www.youtube.com/watch?v=PMv69Gne_Bw
1.2 Sig Figs: https://www.youtube.com/watch?v=LEBSq_oC9Jk
1.3a - Unit Conversions - https://www.youtube.com/watch?v=lbEn0G-7S4M
1.3b – Units – scale - https://www.youtube.com/watch?v=-aYat9357mE

Ch 2: 1-D (Linear) Motion–
2.1 Free fall - https://www.youtube.com/watch?v=E43-CfukEgs - same room as Avengers
where tesseract cube stolen by Loki -   https://www.youtube.com/watch?v=pQKYN-yR2oM
Felix bumg. - https://www.youtube.com/watch?v=mJxsj51d-Pk

Ch 3: 2-Dimensional Motion (Projectile) -

3.3a Harvard – Shoot the monkey - https://www.youtube.com/watch?v=0jGZnMf3rPo
3.3b MIT – Shoot the monkey - https://www.youtube.com/watch?v=cxvsHNRXLjw
3.3c – Projectile – Vx - https://www.youtube.com/watch?v=KacTRPL1MtE
3.4a – Vector addition Japanese car - https://www.youtube.com/watch?v=yPHoUbCNPX8
3.4b – Relative motion (truck) - https://www.youtube.com/watch?v=j1URC2G2qnc

Ch 4:

4.1 Inertia. - https://www.youtube.com/watch?v=j1URC2G2qnc
Forces – concrete - https://www.youtube.com/watch?v=cZINeaDjisY
Roads – asphalt - https://www.youtube.com/watch?v=XKFaC5RYbEM
Screwdriver – phillips -   https://www.youtube.com/watch?v=R-mDqKtivuI
Potholes - https://www.youtube.com/watch?v=gRuarpWsKHY

Ch 5 KE PE

5.1 – Conservation-   https://www.youtube.com/watch?v=Zw1bp1V_RwA
5.1a – KE - Penny from Empire State Building -
https://www.youtube.com/watch?v=16Ci_2bN_zc
5.3 Springs – shotgun mechanism - https://www.youtube.com/watch?v=21uh28Z77Xg

Ch 6 momentum
6.2 Golf ball #1 – https://www.youtube.com/watch?v=ZHPK5vvtnf4
6.2 Golf ball #2 - https://www.youtube.com/watch?v=c-0dDKfw4NI
6.2 Golf ball #3 - https://www.youtube.com/watch?v=JT0wx27J9xs

Chapter 7 – Circular Motion
7.1 - Centripetal force - https://www.youtube.com/watch?v=zHpAifN_2Sw
7.2 – Universal Gravitation – https://www.youtube.com/watch?v=kxkFaBG6a-A
7.2a – Space and Gravity -   https://www.youtube.com/watch?v=iQOHRKKNNLQ
7.2b – Earth Spin - https://www.youtube.com/watch?v=9zso7ChaQXQ
7.2c – Space Toilet 😊 -   https://www.youtube.com/watch?v=m1wwzwvfsC0
7.2d - Apollo Rocket - https://www.youtube.com/watch?v=1nLHIM2IPRY

Ch 8/9 Fluids - Heat
Archimedes principle – 1 – https://www.youtube.com/watch?v=0v86Yk14rf8
Archimedes principle – 2 - https://www.youtube.com/watch?v=ijj58xD5fDI
Bernoullis demos - https://www.youtube.com/watch?v=HZClP-m9g24
Bernoulli equation - https://www.youtube.com/watch?v=ytCuHh5PwwY&t=1s
Pump - https://www.youtube.com/watch?v=Vhc-hEjh12I
Water tower -   https://www.youtube.com/watch?v=yZwfcMSDBHs
Airlock - https://www.youtube.com/watch?v=zdkp9N3qfkI

Physics engine – fluids, power, heat
https://www.youtube.com/watch?v=gugIj7TAZ2o

carburetor - https://www.youtube.com/watch?v=toVfvRhWbj8
fuel injection - https://www.youtube.com/watch?v=N0RIGWUnVFc
hydroelectric model - https://www.youtube.com/watch?v=Z2xI02kB2lw
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Pressure F/A = https://www.youtube.com/watch?v=3Eo_GvDGP-g
Heat – expansion - https://www.youtube.com/watch?v=pH7VfJDq7f4
Solar power - https://www.youtube.com/watch?v=ccO0_hSXMyM

Waves –
11.1 - Pendulum – cool -   https://www.youtube.com/watch?v=yVkdfJ9PkRQ
11.1a – another pendulum - https://www.youtube.com/watch?v=_4ICFmAr_DQ
11.3 interference -   https://www.youtube.com/watch?v=eW5VGGJuWtQ
11.3a nodes -   https://www.youtube.com/watch?v=M75usRhy8S0

Sound – resonance – Tacoma Narrows Bridge -
https://www.youtube.com/watch?v=mXTSnZgrfxM

Cell phone waves - https://www.youtube.com/watch?v=0faCad2kKeg

Sound-
12.1 – doppler1 - https://www.youtube.com/watch?v=h4OnBYrbCjY
12.1a – doppler 2 - https://www.youtube.com/watch?v=7l1OxhxCh1E
12.1b – doppler 3 - https://www.youtube.com/watch?v=fWX38qjECyE
12.1c - doppler 4 - https://www.youtube.com/watch?v=SqGtp6RQy_8

12.2 – standing waves - https://www.youtube.com/watch?v=0Rfushlee0U
12.2a – slinky standing waves - https://www.youtube.com/watch?v=-k2TuJfNQ9s
12.2b – decibels - https://www.youtube.com/watch?v=WZLQoP6CM0k

Sound harmonics

12.3 – beats - https://www.youtube.com/watch?v=4M72kQulGKk
12.3a – guitar tuning beats ---   https://www.youtube.com/watch?v=rmvDu6EY2lE

Resonance 1 - https://www.youtube.com/watch?v=B_u3sGbpM8M
Resonance 2 myth busters - https://www.youtube.com/watch?v=fr3gWpxuJxE
Speed of sound – whip it good - https://www.youtube.com/watch?v=AnaASTBn_K4
Sugar Plum Fairy - https://www.youtube.com/watch?v=QdoTdG_VNV4
Glass armonica - https://www.youtube.com/watch?v=eEKlRUvk9zc

Light-
14.1 Speed of light - https://www.youtube.com/watch?v=pTn6Ewhb27k
14.3a Polarized light 1 -   https://www.youtube.com/watch?v=c9ew1J0PY-M
14.3b Polarized light 2 - https://www.youtube.com/watch?v=CSu0cV3fqi8

14.4 Grape Microwave-totalinternalreflection –
 https://www.youtube.com/watch?v=wCrtk-pyP0I

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Mirrors lenses
1. https://www.youtube.com/watch?v=AMrhQ5d2N48
2. https://www.youtube.com/watch?v=7GV1UZSTNJg
3. https://www.youtube.com/watch?v=GPomGcZ3_kk
4.

Circuits –
https://www.youtube.com/watch?v=kjW4H3fKi8o
https://www.youtube.com/watch?v=-PiB2Xd3P94

Sky blue - https://www.youtube.com/watch?v=4HBuHX4-VU8
Again - https://www.youtube.com/watch?v=UvmWxm3nR6E
Electricity – Power lines - https://www.youtube.com/watch?v=bHIhgxav9LY

Cell phone waves - https://www.youtube.com/watch?v=0faCad2kKeg

Fiber optics – a - https://www.youtube.com/watch?v=0MwMkBET_5I
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Microwave - https://www.youtube.com/watch?v=kp33ZprO0Ck

Electricity – storage - https://www.youtube.com/watch?v=66YRCjkxIcg

GPS – relativity - https://www.youtube.com/watch?v=ozAPGnr-934
Turbine – 3blade - https://www.youtube.com/watch?v=RNPIRfxUTQ4
Turbine- assembly -   https://www.youtube.com/watch?v=0vE6QkvcV-s

DC motor -   https://www.youtube.com/watch?v=CWulQ1ZSE3c

Plywood produced - https://www.youtube.com/watch?v=eF5LVBW1vl8

Plywood again - https://www.youtube.com/watch?v=3Wh9NYvfStk

Misc:
Tattoo slow mo – https://www.youtube.com/watch?v=kxLoycj4pJY
Tattoo removal - https://www.youtube.com/watch?v=D0B7F5UbTOQ
Microscope - skin, etc.- https://www.youtube.com/watch?v=DfSnHyIryeY

Marvel Universe and Science - https://www.youtube.com/watch?v=FGP4KIkr2ls