**Online Materials are provided for the help of understanding more clear idea of physics**

* **Chapter-20**
* ***The first law of thermodynamics***
* Lectures: MIT

<https://www.youtube.com/watch?v=kLqduWF6GXE>

<https://www.youtube.com/watch?v=TDqx8Zv1rRo>

Conceptual Physics, Paul Hewitt, UC Berkeley & San Francisco

(Temperature, Expansion & Hear transfer)

<https://www.youtube.com/watch?v=_Ox6o8y46eQ>

<https://www.youtube.com/watch?v=TtwptuHxdhU>

<https://www.youtube.com/watch?v=HsW-iE6H8GA>

* Short Videos:

<https://www.youtube.com/watch?v=Xb05CaG7TsQ>

<https://www.youtube.com/watch?v=aOSlXuDO4UU>

<https://www.youtube.com/watch?v=obeGVTOZyfE>

Heat transfer:

<https://www.youtube.com/watch?v=ZvWY2Y8CNi8>

<https://www.youtube.com/watch?v=V_zsD8vXyik>

Radiation on Human body:

<https://www.youtube.com/watch?v=tq6FDyFeCN0>

* Documentary:

<https://www.youtube.com/watch?v=GcfEnbyaF4I>

* **Chapter-21**
* ***The kinetic theory of gases***
* Lectures: Walter Lewin

<https://www.youtube.com/watch?v=OBVUD4kz6_E>

Paul Hewitt:

<https://www.youtube.com/watch?v=-COA60eO2vE>

Yale University:

<https://www.youtube.com/watch?v=YxGHbnwqd14>

* Short videos:

Ideal gas law:

<https://www.youtube.com/watch?v=luI0ZmZ7rAg>

<https://www.youtube.com/watch?v=YSTRa27a3BQ>

<https://www.youtube.com/watch?v=TFitJO1LsbY>

Specific heat:

<https://www.youtube.com/watch?v=4Ar4bSlKz3s>

<https://www.youtube.com/watch?v=d7JD8NFiUpU>

<https://www.youtube.com/watch?v=1u207DoAdzE>

 For solid:

<https://www.youtube.com/watch?v=s05TqBlVG9U>

Thermodynamic processes:

<https://www.youtube.com/watch?v=0OD0mOT-dKU>

 Mean free path

 <https://www.youtube.com/watch?v=_vUtO3BS-zM>

 Maxwell-Boltzmann distribution:

 <https://www.youtube.com/watch?v=e3hQfNzQ3Qg>

 <https://www.youtube.com/watch?v=YacsIU97OFc>

 Speed distribution:

 <https://www.youtube.com/watch?v=8OYde2fgt1Y>

 <https://www.youtube.com/watch?v=wkzFjqhMLRs>

 Khan academy:

 <https://www.youtube.com/watch?v=Qsa4aAdpHfY>

* Documentary related to thermodynamics, if anyone is interested

 <https://www.youtube.com/watch?v=GOrWy_yNBvY>

 Quantum Electrodynamics: Blackbody radiation & more things if you are interested,

 <https://www.youtube.com/watch?v=y0Z5i9qMbd0>