SUBJECT:

PHYSICS

CLASS:

SENIOR SECONDARY SCHOOL 2

TERM:

SECOND

SCHEME OF WORK

WEEK	TOPIC
1	Heat energy – temperature and its measurement
2	Heat capacity and specific heat capacity
3	Calculations on specific heat capacity
4	Evaporation, boiling and melting points and their determination. Effects of impurities and pressure on boiling and melting
5	Latent heat – Fusion and vaporization
6	Vapor pressure – Saturated and unsaturated vapor pressure and its relation to boiling. Humidity ,Relative Humidity, Dew point and its relationship to weather

- ***Mid-term project***

7	Gas Laws – Boyle's, Charles', Pressure and General gas law
8	Production and propagation of waves
9	Properties of waves – reflection, refraction, diffraction, interference and polarization
10	Light waves – source, reflection, reflection plane and curved mirrors
11	Refraction of light – refractive index, its determination, total internal reflection and critical angle
12	Revision
13	Examination

WEEK ONE

HEAT ENERGY

- Heat
- Temperature
- Measurement of temperature
- Thermometers

Heat

Heat is a measure of total internal energy of a body. It is a form of energy due to a temperature difference. It is measured in Joule, J

Temperature

Temperature is the degree of hotness or coldness of a body. The unit of temperature is in degree Celsius (^{0}C) or Kelvin (K)

Measurement of temperature

Temperature is measured by using thermometers. Thermometers have two reference temperatures or fixed points called the upper fixed point and lower fixed point.

The upper fixed point is the temperature of steam from pure water boiling at standard atmospheric pressure of 760mm of mercury. It is 100^0C

The lower fixed point is the temperature of pure melting ice at the standard atmospheric pressure of 760mm of mercury. It is 0^0C

Temperature scales

The difference in temperature between the upper and lower fixed points is called fundamental interval of a thermometer. The calibration of this interval depends on any of the three scales below:

1. Celsius scale
2. Fahrenheit scale
3. Kelvin or Absolute scale

The S. I. Unit of temperature is…