

Course Curriculum for Solar Thermal for Std X (Work Experience)

Objective: *An average student should be able to understand the utilization of Solar energy for heating purposes and its applications*

1. Solar cooker
2. Solar water heaters

25 Hrs

Topic
<u>Solar Thermal- introduction</u> <ol style="list-style-type: none">a. Nature of thermal radiationb. Understanding phenomenon of heat absorptionc. The heat gain and heat lossd. Temperature equilibrium ("Renewable energy technologies", A practical guide for beginners by Dr.Chetan S. SolankiChpt. 4 Pgs. 51 to 55)
<u>Physical construction</u> <ol style="list-style-type: none">a. Solar cooking systemsb. Solar concentratorsc. Solar water heating systemsd. Solar air heating systemse. Overall solar heating systems(pressurised non pressurised)f. Overall maintenance
<u>Components and specification of Solar Thermal heating system</u> <ol style="list-style-type: none">a. Installation and maintenance of the systemb. Introduction to Solar distillation system
<u>Instrumentation for Solar Radiation</u> <ol style="list-style-type: none">a. Lux meterb. Radiation meter
<u>Innovative approach</u> <ol style="list-style-type: none">a. Projects