

D.A.V. PUBLIC SCHOOL, VELACHERY, CHENNAI -42

EXPERIENTIAL LEARNING ACTIVITIES

CLASS : X

SUBJECT :Physics

CHAPTER No.: 12

TOPIC : Electricity

SUB-TOPIC : Power

NAME OF THE ACTIVITY : Energy Consumption In Our House

TYPE OF ACTIVITY : Individual

PLACE OF THE ACTIVITY : House

METHODOLOGY:

- 1) The students are asked to find the power of 5 different appliances (eg. tube light, fan, AC, refrigerator)
- 2) Find the time duration for which each appliance is being used for a day.
- 3) Find if they have multiple numbers of the same appliance.
- 4) Calculate the energy consumed by each appliance by using the formula

$$E = nPt$$

n – number of appliances

P – Power in kW

t – time in h

- 5) Also calculate the total energy of the five appliances for a day and then for a month.

QUESTIONS:

- 1) Which appliance do you think consumes more energy in a day?
- 2) Suggest measures to conserve energy.

CURIOSITY QUESTIONS:

- 1) Why should a fuse be connected in series to the appliance?

Answer Guide:

Think About

- a) What is the function of a fuse?
 - b) What happens to the current in a parallel connection?
 - c) If high current is flowing in a circuit and if the fuse is connected in parallel to the appliance, what would happen to the appliance?
- 2) How do we change the resistance of a rheostat?

Answer Guide:

Think About:

- a) What are the factors on which resistance of a conductor depend upon?
- b) Which part of the rheostat is movable?