

Item-6

Fossil fuel is not forever

Objective

1. To be sensitised about the judicious use of energy fossil fuels.
2. To think and suggest ways of conserving fossil fuels.



Background

Fossil fuels which are one of the basic sources of energy for all our activities are exhaustible. For example, coal, kerosene, and LPG are sources of energy for cooking, heating, burning in our households. Petrol and diesel used for transport and in industry are also derived from fossil fuels. A large fraction of electricity is produced by burning coal. Fuel wood, though renewable, is fast depleting due to excessive use. By judicious use of these resources one can conserve fossil fuels and reduce the cost of living.

Methodology

1. Visit atleast 10 houses in your neighbourhood and find out the types of fuels used for cooking, heating and boiling of food and water.
2. Also find out the type and condition of the *chulha* (cooking stove), burner, oven, etc. used for the purpose.
3. Find out the average consumption per month in terms of money.



4. Find out the sources of leakage or wastage of energy. if any.
5. Collect information from families and record your observations.

Fuel	Family Members	Usage (Y/N)	Usage per day	Usage per Month	Usage per individual
1. Electricity					
2. Kerosene					
3. Coal					
4. LPG					
5. Petrol					
6. Diesel					
7. Others					

6. Discuss with members of families as to how consumption of fuels can be reduced.

Conclusion

Ways for saving house hold gas (LPG):

- Put on the stove only after arranging all the things which are necessary for cooking otherwise gas weight of 135 gms cost Rs. 2.11 would be wasted.
- By using pressure cookers 20% gas on rice and 41.5% on meat would be saved when compared to other cooking means.
- Water is essential for cooking. The more water we use for cooking the more fuel consumption is required. For this 65% of more fuel is required. If we filter excess water during cooking we may lose its nutrients also.
- We must reduce the flame as soon as the boiling process starts in a pressure cooker. This process saves nearly 35% of fuel.
- Soaking food material before cooking saves 22% of fuel.
- Broad and low depth Vessels are useful for cooking. Flame spread over the bottom portion of the vessel so food material cooks in less time. If we use less bottom vessels fuel will be wasted.
- Lid is compulsory on the cooking vessel, if not it takes more time to cook. Which leads to wastage of fuel around 7.25 grams of gas.

- It's better to use small burner than bigger one which helps in low consumption of the fuel. Small burner helps in saving 6.5% fuel than big burner.
- Some undissolved minerals deposited in the form of layers in the cooker. 1 mm of this layer may require extra 10% of fuel. So pressure cooker must be cleaned as and when used.
- Milk or any other thing taken out from refrigerator should not be heated immediately after taken out from refrigerator which needs more fuel. It's better if we heat it sometime after taking it out.
- Heating the food again and again can be avoided if all the family members take food at a time. It also helps in saving fuel and develop love and affection, among family members.
- Prepare a report on effective utilisation of fossil fuels.

Follow-up

1. Suggest steps to reduce the consumption of electricity or other fuels in your school (specially where mid-day meal is prepared in the school).
2. Encourage people to use solar water heater and solar cooker.



There is a finite amount of fossil fuel found on earth. In terms of years of production left. Oil reserves for 45 years, Gas reserves for 72 years, Coal reserves for 252 years. This means supply of non renewable fossil fuels is very limited.