CLASS-10

PHYSICAL SCIENCE

PERIOD PLANS

CHAPTER: 02 – CHEMICAL REACTIONS AND EQUATIONS

PERIOD PLAN-08 : Some other effects of oxidation in daily life

Rancidity – reasons – preventions

Precautions to be taken to preserve food material

Content Analysis	Class Room Environment	Teaching Learning Material
Some other effects of oxidation in daily life: * Combustion is the most common example for oxidation. **Example:** * Burning of wood involves releasing of CO_2 and H_2O * Adding dough to yeast releases CO_2 and H_2O * Bleaching of coloured objects using moist chlorine. $Cl_2 + H_2O \rightarrow HOCl + HCl$ $HOCl \rightarrow HCl + (O)$ Coloured object + (O) → colourless object * Some times during rainy season , if power supply offs then we rub the leads of wires with sand paper to remove the oxidized part.	**Conversation & Explanation**: About oxidation processes in our day to day life.	Photos
Rancidity – reasons – preventions: When fats or oils are oxidized they become rancid. Their smell and taste change. Oxidation of food materials causes spoiling of food. The spoilage of food can be prevented by adding preservatives like vitamin C and vitamin E.	**Conversation & Explanation**: About rancidity and the prevention methods.	Photos
Precautions to be taken to preserve food material: Usually anti oxidants are added to oils or fats to prevent rancidity. Keeping food in air tight containers helps to slow down the oxidation process. Manufacturers of potato chips flush bags of chips with Nitrogen gas to prevent the chips from getting oxidized.	**Conversation & Explanation**: About preserving food material. * Hydrogination of oils. Oils are made to react with hydrogen in the presence of nickel at 200^oC.	Photos

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