Competency Based Lesson / Unit Plan

Name of School: VASHISTT PUBLIC SCHOOL BEHDALA, UNA

UNIT-6-Haloalkanes and Haloarenes

1. Name of the teacher: RAKESH KUMAR **Designation: PGT Chemistry**

2. Subject: - CHEMISTRY **Class 12**

3. Lesson/Unit Name: - Haloalkanes and Haloarenes

4. No. of lectures required: - 08 **Duration From** ….. / … / ……. **to** …/… / …….

A. Learning Outcomes): After studying this topic, students will be able to

1. Differentiate primary, secondary, and tertiary alkyl halides.
2. Write the general electron-pushing (arrow-pushing) mechanisms for SN1 and SN2 reactions.
3. Draw the potential energy diagrams for S_N^1 and S_N^2 reactions.
4. Predict the favoured reaction between S_N^1 and S_N^2 mechanisms for a given Haloalkanes based on the structures of Haloalkanes, the structures of Nucleophilic, leaving groups, and solvents.
5. Predict the major product(s), including the stereochemistry of Nucleophilic substitution reactions.
6. Use the existing experimental evidence to describe the basis of our current understanding of the mechanisms of nucleophilic substitution at sp^3 carbon. Write chemical equations to outline the mechanism for a particular halide.
7. Predict (and explain) the effect of alkyl, vinyl and aryl substituents on nucleophilic substitution.
8. Given the identity of nucleophile, leaving group, substrate and solvent, predict whether elimination or substitution will predominate for a particular alkyl halide substrate.

B. Details of Pedagogical Strategies/Process (Art integrated /Sports integrated/ Story telling based/Toy based /any other pedagogy):

1 Toy based process – ball and stick structure of primary secondary and tertiary halides
2 Art integrated activity: - structure of intermediate species in SN1 reaction
3 story based activity: - story of cause of different product formation in elimination reaction and Nucleophilic substitution reaction (Role of solvent and type of halides)
4:- PREPARED PPT or PDF OF ELIMINATION REACTION (art- integrated).

C. Topic of the lesson for presentation by the students (once in a week by rearranging classroom setting suitable for group work):

NUCLROPHILIC REACTION VERSUS ELIMINATION REACTION.

D. Name 21st Century Skills to be developed:

Critical thinking by constructing structure of product of SN and Elimination reaction
Collaboration by Listing and collection different type of reaction and sharing of information

- Creativity.
- Communication

E.Activities/Experiments/Hands-on-learning/Projects:

1. Study of product of elimination reaction and Nucleophilic substitution reaction (reactivity of alkyl halide with Nucleophilic reagent polar and non polar solvent)
2 construction of structure of intermediate state in unimolecular reaction by ball and stick method

F. Interdisciplinary linkage and infusion of Life Skills, Values, Gender Sensitivity and Environmental Awareness:

1. Sensing the environment hazards in disposal of alkyl halides
2. comparing the cost effectiveness of different type of ball and stick s
3. LIFE SKILLS AND VALUES LIKE — ENVIRONMENTAL AWARENESS, LOGICAL REASONING

G. Resources (including ICT)

1. www.chemigod.com
2. NCERT text book
3. Teacher resources booklet
4. YOU TUBE VIDEOS
5. PDF

H. Assessment items for measuring the attainment of learning outcomes in the class and as home assignments (All the Assessment Items are planned and are linked with learning outcomes mentioned in Para A):

Items	No of Items	Sr. No. of LO	Items	No of Items	Sr. No. of LO
Oral Quiz	5	1 to 5	Presentation	1	3
Portfolio	–		Puzzle		
Multiple choice questions	3	6	Group Project		
Very Short Answer Questions	3	9,8,11	Individual Project		
Short Answer Questions	8	1 to 8	Any other Item		
Long Answer Questions	2	3,4			
Competency based Questions	1	8			

Note: All assessment items are on record.

I. Remedial Teaching Plans/Plan for unfinished portion – N/A

J. Inclusive Practices (Activities/Support measures for Differently abled students) N/A

Date: (Signature of the teacher)

Remarks of the Principal/Vice Principal:

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(Signature of the Principal)