Points to remember in Alkyl halide

Nucleophilic substitution Reaction (S_N1 , S_N2)

S_N1 reaction:

 $R-X+H_2O \xrightarrow{AgNO_3} R^+ + AgX \downarrow \longrightarrow ROH$ (R may rearrange)

Alkylhalide are hydrolysed to alcohol very slowly by water, but rapidly by silver oxide suspended in boiling water.

S_N2 reaction:

Mechanism :
$$HO^{-}R - X \longrightarrow HO \cdots R \cdots X^{\delta-} \longrightarrow HO - R + X^{-}$$

$$HO^{-} + b \stackrel{a}{\underset{d}{\bigvee}} X \xrightarrow{X} \xrightarrow{\delta^{-}} b \stackrel{a}{\underset{d}{\bigvee}} X \xrightarrow{\delta^{-}} HO \stackrel{a}{\underset{d}{\bigvee}} X \xrightarrow{\delta^{-}} HO \stackrel{a}{\underset{d}{\bigvee}} X \xrightarrow{A} Y^{-}$$

