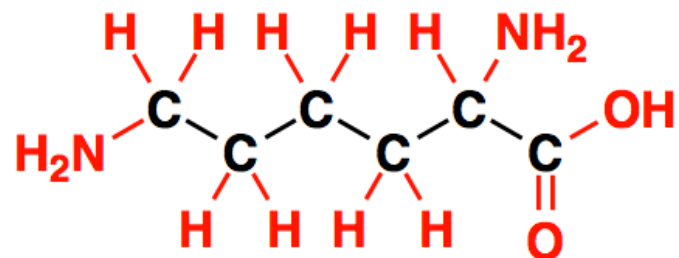
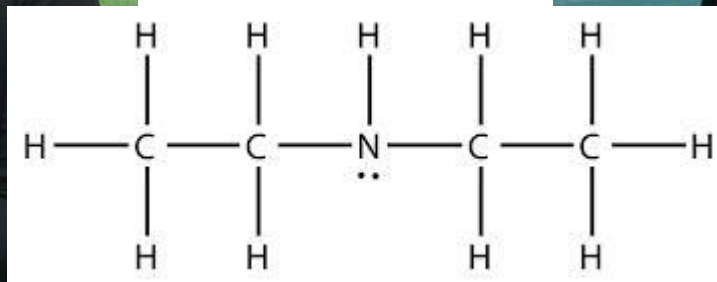
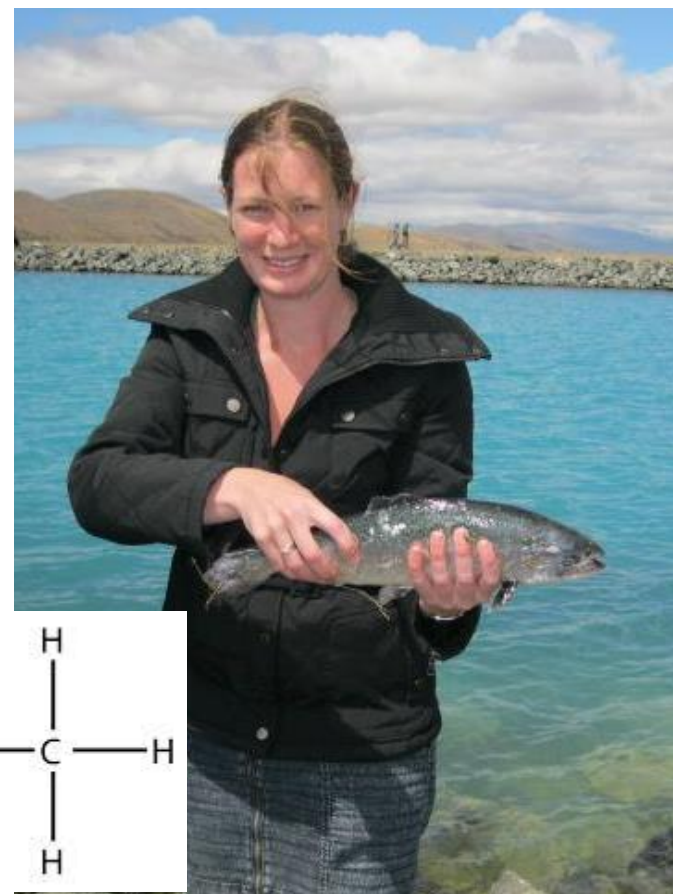
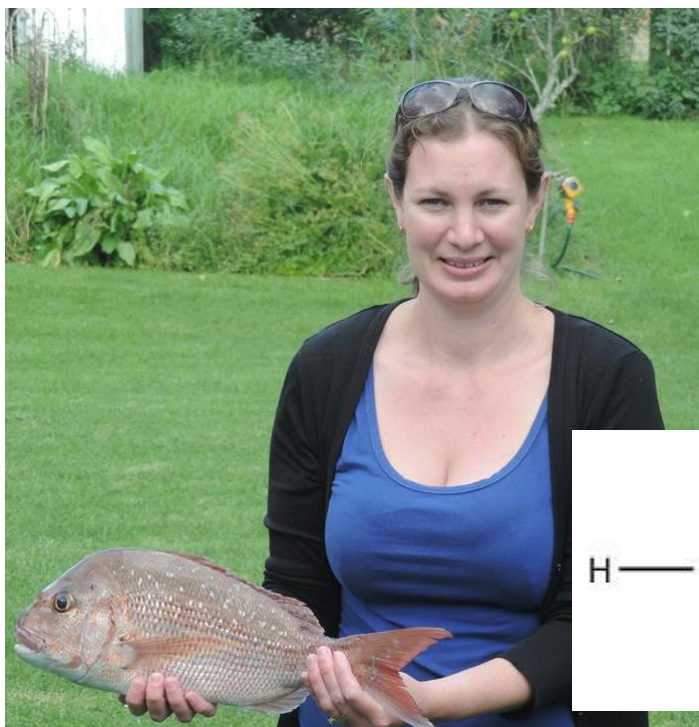


glycine



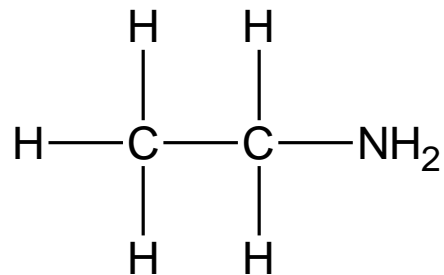
lysine

Amines



Classification of amines

Just like haloalkanes we can classify amines as primary (1°), secondary (2°) and tertiary (3°). At level 2 we only look at primary amines, for example ethanamine:

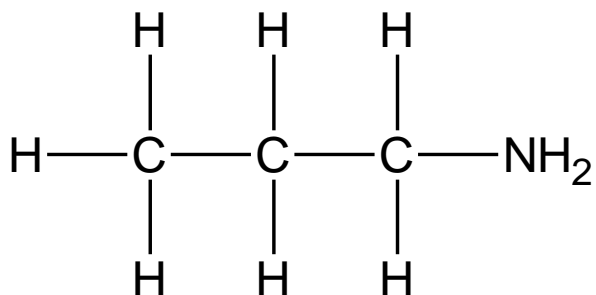


We can name amines in two different ways. The amine can be the suffix (end) or the prefix (start).

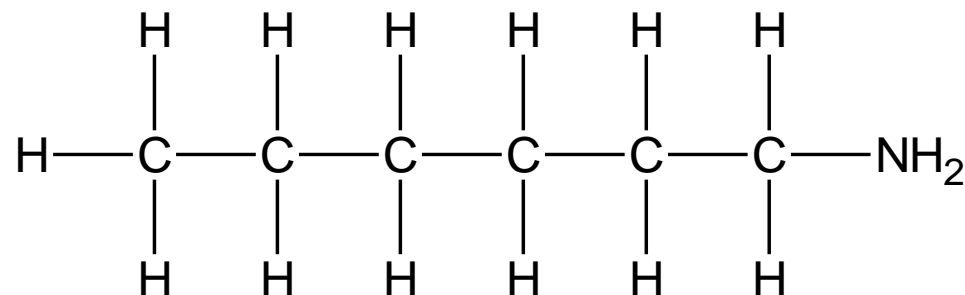
The above compound could be named 1-aminoethane or ethanamine.

Naming and drawing amines

Name the following amines using the suffix naming (anamine)



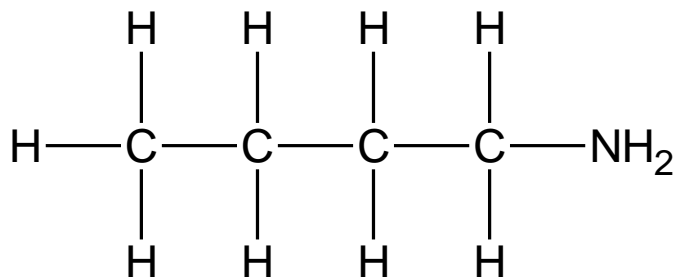
propan-1-amine



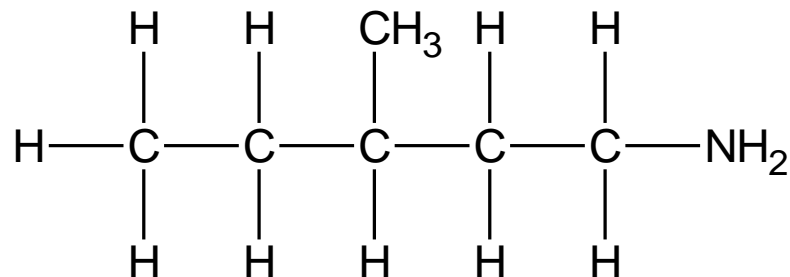
hexan-1-amine

Draw the following amines

butan-1-amine



3-methylpentan-1-amine



Properties of amines



Amines have higher melting and boiling points than hydrocarbons because they are polar and have strong intermolecular forces.

Most amines are liquids but some amines with long carbon chains are solids.

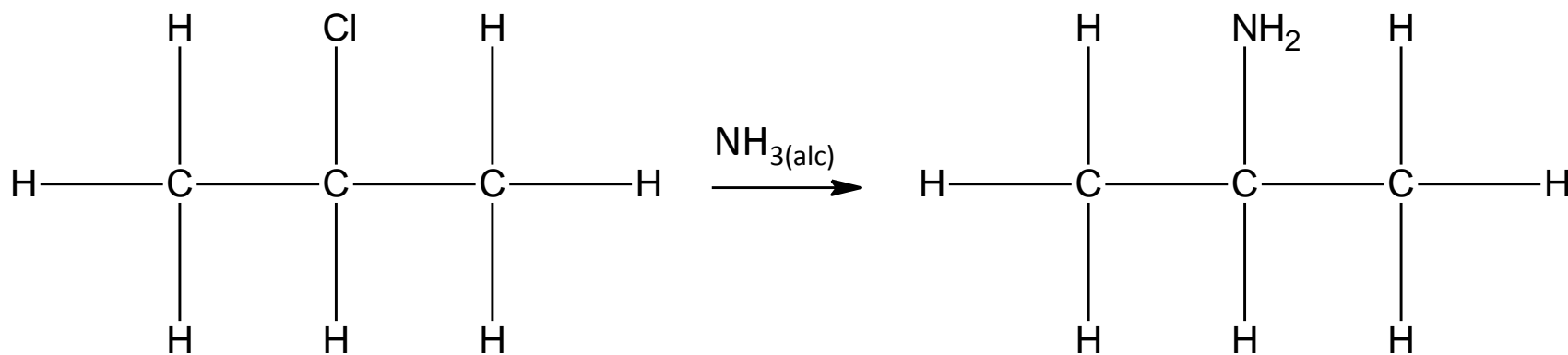
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Small carbon chain amines are soluble in water, but amines with long carbon chains are not.

Reactions of amines

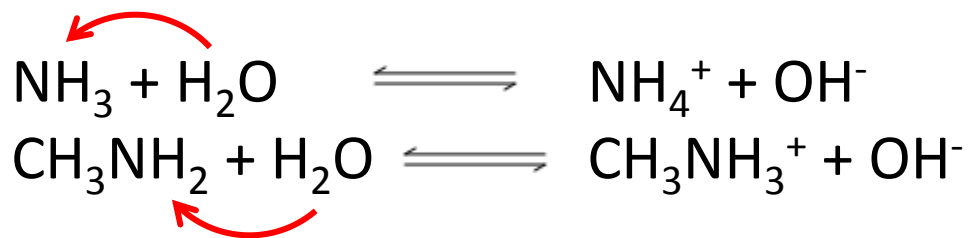
Amines are made from the substitution reactions of haloalkanes, using $\text{NH}_{3(\text{alc})}$.



Reactions of amines

Amines are bases, so they can accept protons (just like ammonia).

Amines will turn red litmus blue



Amines are bases, so they can react with acids to form salts

