NMR Spectroscopy

Tells us:

- The number of different hydrogen environments (number of peaks)
- The heights of the peaks tell us how many different hydrogen's are in each environment in their simplest ratio
- The value of the peak tells us the chemical shift in the molecule which then tells us what types of bonds are present in the molecule
- Splitting in the peak identifies how many protons are in the environment next door.

(n+1).

This spectrum only works for H1 hydrogen atoms. This means that the organic compound is dissolved in a deuterated solvent (CDCL2 or chloroform) where ppm value. the hydrogen atoms are H2.

Protons near an electronegative atom will have a were

O-H and N-H bonds are labile which means they are able to swaps protons with a solvent such as water in order to stop this wouse a deuterated solvent which per eas N-H and O-I

Test For:	Reagent:	Result:
Aldehydes and Ketones	2-4 dinitrophenylhydrazine	Red or orange
		precipitate
Aldehyde	Tollens reagent (ammonical sliver nitrate)	Silver mirror
Phenols or alkenes	Bromine water	Orange to colourless (phenol also forms a white precipitate)
Acidified dichromate	Prim, sec alcohols and	Turns from orange to
	aldehydes	green