

SALTERS ADVANCED CHEMISTRY
"CHECK YOUR NOTES" : COLOUR BY DESIGN

Print the list below and tick the box supplied when you have covered the topic in your notes. Most of the points are covered in the **Chemical Ideas**, with supporting information in the **Storyline** or **Activities**. However, if the main source of information is the **Storyline** or an **Activity**, this is indicated.

1	The absorption of ultraviolet light and visible light in terms of transitions between electronic energy levels.	<input type="checkbox"/>
2	The use of ultraviolet (u.v.) and visible spectroscopy to help identify unsaturated organic molecules.	<input type="checkbox"/>
3	Colour changes associated with the following types of chemical changes: acid-base (indicators), ligand exchange, redox, precipitation and polymorphism (different crystal structures).	<input type="checkbox"/>
4	The relationship between the properties of pigments (colour shade, colour intensity, fastness) to relevant properties (Storyline CD2 and CD3).	<input type="checkbox"/>
5	The general principles of gas-liquid chromatography (g.l.c.)	<input type="checkbox"/>
6	The techniques used to identify the materials used in a painting, including the use of g.l.c. atomic emission spectroscopy, visible spectroscopy (reflection and transmission) (Storyline CD3 and CD4; Activities CD4.1 to CD4.5).	<input type="checkbox"/>
7	The nature of fats and oils as mixed esters of propane-1,2,3-triol with varying degrees of unsaturation.	<input type="checkbox"/>
8	An outline of the process of oxidative cross-linking by which unsaturated oils harden; the relationship of this process to their use as media in oil-based paints.	<input type="checkbox"/>
9	What arenes and arene derivatives (aromatic compounds) are.	<input type="checkbox"/>
10	The structure of benzene.	<input type="checkbox"/>
11	How the characteristic properties of aromatic compounds arise from the delocalisation of electrons.	<input type="checkbox"/>
12	The following electrophilic substitution reactions of arenes: halogenation of the ring, nitration, sulphonation, Friedel-Crafts alkylation and Friedel-Crafts acylation.	<input type="checkbox"/>
13	The formation of azo dyes by coupling reactions involving diazonium compounds.	<input type="checkbox"/>
14	The structure of a dye molecule in terms of its various components: chromophore, groups which modify the chromophore, groups which made the dye more soluble in water and groups which attach the dye to the fibre (Storyline CD5 to CD7).	<input type="checkbox"/>
15	Ways in which dyes attach themselves to fabrics: weak intermolecular forces, hydrogen bonds, ionic attractions and covalent bonding (Storyline CD7; Activity CD7.2).	<input type="checkbox"/>
16	The relationship between the colour of a dye and the presence of a chromophore, and groups that modify the chromophore, in the dye molecule.	<input type="checkbox"/>
17	The relationship between colour in materials and transitions between electronic energy levels.	<input type="checkbox"/>