

## Definitions and Concepts for OCR (A) Chemistry GCSE

### Topic 4 - Predicting and Identifying Reactions and Products

*Definitions in **bold** are for higher tier only*

*Definitions marked by **\*** are for separate sciences only*

*Definitions have been taken, or modified from the [OCR \(A\) Specification for GCSE Chemistry, J248, Version 3.3 May 2020](#)*

**Alkali metals:** The elements in Group 1 of the periodic table. They are typically soft and have relatively low melting points.

**Anions:** A negatively charged ion. Formed when an atom gains at least one electron.

**Catalyst:** Increases the rate of reaction by providing a different reaction pathway with a lower activation energy. They are not used up during the reaction.

**Cations:** A positively charged ion. Formed when an atom loses at least one electron.

**Displacement:** A chemical reaction in which a more reactive element displaces a less reactive element from its compound.

**\*Flame test:** Qualitative test used to identify metal ions (cations). Carried out by inserting a nichrome wire loop with the unknown compound on into a flame and observing the colour.

**Group (periodic table):** A column of the periodic table. Elements in the same group have similar chemical properties.

**Halides:** The ions formed by halogen atoms when they gain an electron. They have a 1- charge. E.g. Cl-, Br- and I-.

**Halogens:** The elements in Group 7 of the periodic table. The halogens gain an electron to form halide ions with a 1- charge. Down the group the halogens get less reactive and have higher melting and boiling points.

**\*Instrumental methods:** Used to detect and identify elements and compounds. They are accurate, sensitive and rapid.

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**Noble gases:** The elements in Group 0 of the periodic table. They have a stable full outer shell of electrons which makes them very unreactive.

**Periodic table:** Table of elements arranged in order of increasing atomic number and such that elements with similar properties are in the same column (group).

**Period (periodic table):** A row of the periodic table. Elements in the same period have the same number of electron shells.

**\*Transition metal:** A metal found between Group 2 and 3 of the periodic table. Typical properties include high melting points, high densities, form coloured compounds and catalytic activity.

