

# SUMMER TASK

## CHEMISTRY



Please complete the tasks below, we'd appreciate it if you could bring them in during your first week with us in September.

### TASK 1

#### Chemical Formulae

<u>Aluminium</u> $\text{Al}^{3+}$	<u>Bromide</u> $\text{Br}^-$	<u>Calcium</u> $\text{Ca}^{2+}$	<u>Carbonate</u> $\text{CO}_3^{2-}$
<u>Chloride</u> $\text{Cl}^-$	<u>Iron(II)</u> $\text{Fe}^{2+}$	<u>Iron(III)</u> $\text{Fe}^{3+}$	<u>Nitrate</u> $\text{NO}_3^-$
<u>Oxide</u> $\text{O}^{2-}$	<u>Potassium</u> $\text{K}^+$	<u>Sodium</u> $\text{Na}^+$	<u>Sulfate</u> $\text{SO}_4^{2-}$

Use the table of ions above to deduce the formulae of the following ionic compounds.

Sodium chloride

Calcium bromide

Sodium carbonate

Aluminium oxide

Iron(II) chloride

Potassium oxide

Aluminium chloride

Potassium nitrate

Aluminium sulfate

Iron(III) nitrate

### TASK 2

#### Balancing Equations

Write a balanced symbol equation for the combustion of methane in oxygen

Methane + oxygen  $\rightarrow$  carbon dioxide and water

Balance the following symbol equations.

