The main group (s- and p-block) elements are among the most diverse in the Periodic Table. Ranging from non-metallic gases (e.g., hydrogen and fluorine), through semi-metals (e.g., metalloids such as silicon) to highly reactive metals (e.g., sodium and potassium). The study of the main group elements is important for a number of reasons. On an academic level they exemplify the trends and predictions in structure and reactivity that are the key to the Periodic Table. They represent the diversity of inorganic chemistry, and the fundamental aspects of structure and bonding that are also present for the transition metal, lanthanide and actinide elements.

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