

Group 13 is sometimes referred to as the boron group, named for the first element in the family. These elements are--not surprisingly--located in column 13 of the periodic table. This group includes boron, aluminum, gallium, indium, thallium, and ununtrium (B, Al, Ga, In, Tl, and Uut, respectively). These elements all have three valence electrons. Boron is the only metalloid in this family. The rest of the elements are considered to be poor metals.

## Real World Application

Discover processes or disciplines in the natural or man-made worlds that employ the concept.

### Boron

Boron is used in detergents (i.e. Borax) and in boric acid, which is used as an antiseptic.

### Aluminum

Many people encounter aluminum every day. It is used in a variety of packaging materials, such as aluminum cans and aluminum foil. Aluminum is also used in mirrors, toys, and deodorants.

### Gallium

Gallium is an important element to the field of electronics and technology. It is used in chips and LED lamps. It is useful in these fields because it is a semiconductor.

### Indium

Indium is also important in technology and electronics. It is found in photocells and transistors. Indium is also found in solid state lasers.

### Thallium

Thallium and compounds containing thallium are very toxic and thus not very common. Thallium is sometimes found in photocells and low-melting glass.

## Vocabulary

Learn important vocabulary for this concept, including words that might appear in assessments (tests, quizzes, homework, etc.) that indicate the use of this concept.

Important Vocabulary

**Term**

**Context**