

Investigating Trends in the Periodic Table

In this exercise, you will learn how to identify trends in the periodic table dealing with physical characteristics, atomic radius and thermochemical properties. The recognition of such trends can be attained by looking at the basic properties of elements, as you will see below. You will deduce the trends and evaluate your answers with the help of interactive exercises from www.webelements.com. After completing this activity, you should understand why the periodic table is organized as it is, and how you can easily extract the desired information from such a chart for use in physical science.

Using the information from www.webelements.com, find the following information about your element of interest:

Element	
Boiling point	
Melting point	
Density of solid	
Atomic radius	
# of electrons	
# of neutrons	
# of protons	

Access www.webelements.com with your internet browser. Note the elements to the left, right and directly below your element. Note the same information for these elements as you did for the element of interest:

	Left	Right	Bottom
Element			
Boiling point			
Melting point			
Density of solid			
Atomic radius			
# of electrons			
# of neutrons			
# of protons			

Deducing trends...

What happens to density, boiling point, and atomic radius as you increase/decrease atomic number?

What trends do you observe as you go down a group?