Honors Chemistry
Optional Bonus Project

Create your own periodic table!

Imagine that you are a scientist on another world, where there is a set of elements different than Earth's. The name of the planet is Xeno. Your job is to perform tests on the elements of Xeno and then to arrange the elements into a periodic table with groups & periods, similar to the periodic table chemists use on Earth. The tables shown at the right give the information about the elements.

To complete the project, think about what our periodic table was designed to show: a numerical order, relationships between chemically similar elements, patterns in properties, etc. Recall that Mendeleev left 'blanks' in his periodic table to allow for elements yet to be discovered.

When you have decided on the arrangement for the elements, turn in a diagram which shows your periodic table. Making it colorful is nice—creating it on the computer would be good, too. Also include a typed summary of the ideas you had when creating the table and the various features of your table

This project is to be completed INDIVIDUALLY.

For credit in the first quarter, it must be turned in by FRIDAY OCTOBER 10.

Physical Properties of Elements on Xeno

Element	Color	Hardness	Melting pt. (°C)
A	turquoise	soft	1050
B	silvery, black	hard	−300
C	yellow	soft	1000
D	gray	hard	400
E	pink	soft	1200
F	silvery, black	hard	−100
G	silvery, black	hard	−200
H	black	hard	300
I	aqua	soft	900
J	brown	soft	1000

Chemical Properties of Elements on Xeno

Element	Reacts with water	Reacts with acid	Reacts with oxygen	No reaction
A			X	
B	X	X	X	
C				X
D		X	X	
E				X
F	X	X	X	
G	X	X	X	
H	X	X	X	
I			X	
J		X	X	

Relative Atomic Masses of Elements on Xeno

Element	Relative atomic mass	Element	Relative atomic mass
A	5	F	15
B	3	G	9
C	1	H	14
D	7	I	2
E	10	J	6