ALIEN PERIODIC TABLE

As a scientist for NASA, you are excited when an alien spacecraft from the planet Pickett Place lands on Earth. Among the scientific data that is collected, you find a very crude listing of elements. The elements from Pickett Place are the same as the ones here on Earth; however, their names and symbols are different. It is an alien planet after all! Your job is to translate these alien symbols into their counterparts here on Earth. Use the clues to the identity of the alien elements listed below to help fill in the alien periodic table with the alien element symbols.

Hints: Only the 1st 5 periods of the s and p block elements are found on Pickett Place. You will need a periodic table to help with this conundrum.

- **Ke** has an atomic number of 4.
- **Tk** is the lightest element on the periodic table.
- **N** is the lightest metalloid.
- If you average the masses of all the isotopes of element **An**, you will find that the atom has an average mass of 24.305amu.
- **Ks** is the heaviest noble gas.
- **Oc** is a noble gas.
- **Al** is in the family that is composed of elements that have two dots around their dot structure. It is in the same period as **Oc**.
- **To** has an atomic number one less than **Al**.
- **Ma** is the most reactive metal shown on the periodic table.
- **Ie** is an alkaline earth metal.
- **Ic** and **E** are in the same family.
- **E** is a member of the 5th period.
- The highest energy level where you will find electrons in elements **Od** and **Do** is the 5th energy level. **Od** has one electron in the 5p sublevel while **Do** has 3 electrons in the 5p sublevel.
- **St, Es, Gl, and Ea** are all in the halogen family.
- The ending of **At**'s electron configuration is $4p^4$, and its atomic number is one lower than **Es**.
- **Tr** is the third heaviest noble gas, and its atomic number is one higher than **Gl**.
- **Ll** is a metalloid that can be used as a poison.
- **Ta** is the main component of sand; it is also what computer chips are composed of.
- **Ri** and **Bl** are next to each other in the 4th period. **Ri** is the lighter of the two atoms.
- **Go** and **Bu** both have the following dot structure:  . They are adjacent to each other in the table. **Bu** has a larger atomic number than **Go**.
- Some people think that **Pe** is a metalloid because it lies next to the stair step line on the periodic table. However, it is the only element that touches this line that is not considered a metalloid.
- **Ea** is the lightest element in its family.
- **Es** is the only element listed that is a liquid at room temperature.
- **Ho** is the element in the third period that has only one valence electron.
- **Ew** is the gas we use to float balloons.
- **Is** is the lightest element in its period. **Ar** is the heaviest element in the same period. **Ar** has eight valence electrons.
- **Th, Be, and Gs** are all chalcogens. **Be** is the second lightest while **Th** is the heaviest in the family.

Alien Periodic Table

	1A 1	2A 2	3A 13	4A 14	5A 15	6A 16	7A 17	8A 18
1								
2								
3								
4								
5								