Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**iPads – Atom Exploration**

First, go to periodictable.com

**Photographic Periodic Table**

1. What do you notice about the periodic table? List at least 3 initial observations.
2. Read the descriptions of a few elements. Do they always look like their picture? Why or why not?
3. Choose an element that you have never heard of before. Write at least 3 facts that you learn below.
4. Choose an element that you have heard of before. Write at least 3 facts that you learn below.
5. Can oxygen ever be anything other than a gas? If no, why not? If so, what can it be?
6. What do the first five elements in the far right column (#2,10,18,36,54) have in common?
7. Despite what they all have in common, how are they different?
8. What element is most of our visible universe made up of? (Hint: look for a picture of space)
9. Why does the element Technetium have a picture of a hand as the photo?
10. Can you find an element that does not ever boil? What is it?

**Now, open up the Periodic Table app from Educalab.**

1. What makes each atom different from another atom?
2. As the atomic number goes up, what do you notice about the number of electrons?
3. Why do you think this is?
4. Draw and describe an atom of your choice.
5. Describe the movement and placement of electrons in atoms.
6. Why are there two different colored dots in the nucleus?
7. As you go up in atomic number, what happens to the size of each atom?
8. Why is this?
9. How many electrons does Potassium (K) have?
10. How many “orbitals” (rings) does the atom show?
11. At what atomic number do the atoms gain a third ring?
12. Look at all of the elements, but pay close attention to the first 10 elements. How many electrons are in the first orbital/ring?
13. Why is it easier to see how many electrons are in the first ring in the first 10, but gets harder as you go up in atomic number?