[The Periodic Table: Crash Course Chemistry #4](http://nerdfighteria.info/video/144/0RRVV4Diomg" \o "The Periodic Table: Crash Course Chemistry #4)

1. Mendeleev spent a great deal of time in laboratories as a student, studying the burgeoning new field of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. He worked with all the elements that you could work with at the time, and his knowledge gave him unique insights into their properties.
2. Lithium, sodium, potassium, and rubidium were all extremely prone to reacting with chlorine, fluorine, iodine, and bromine; beryllium, magnesium, calcium, and strontium were all similar, but \_\_\_\_\_\_\_\_\_ reactive.
3. But with a quick inspection, you, and to be fair, a number of other chemists, realize that there was a relationship between atomic weights, but it's periodic. At the beginning of the list of elements, characteristics repeat every \_\_\_\_\_ elements.
4. You, never having examined the element he discovered, knew more about it than he did, because you are Mendeleev, Master of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Next, you have the alkaline earth metals - reactive metals, but not as reactive as the alkali metals, for cations with \_\_\_\_\_positive charges instead of just one. Calcium, shown here, undergoes a very similar reaction to sodium with water, just a little more slowly, producing a little less \_\_\_\_\_\_\_\_.
6. On the far right, just over from the noble gases, the halogens make up a set of extremely reactive gases that form negative ions, or anions, with one negative charge, and love to react with the alkali and alkaline earth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. And as we now know, the periodicity of elements is a physical phenomenon. It's a function of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which are in some ways pretty dang peculiar, but certainly not at all mystical.
8. And really, it would be best if it wrapped around into a circle, so that fluorine, and neon, and sodium were all next to each other, instead of being on opposite sides of the map, because they're just one \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ away!
9. Mendeleev's contribution, nonetheless, is more powerful than at first it seemed. He ended up forming a guide to help future chemists understand things that wouldn't be discovered for 25, 50, even \_\_\_\_\_\_\_\_\_\_\_\_ years.
10. List and explain two things you learned from the video: