



The Study of the Periodic Table

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Project, Strategy, Method or Activity: PBL Driving Question Mini-Project.

Synopsis: I use the PBL driving Questions Project with a study of the periodic table. I also include physical and chemical changes in this project. This project focuses on key questions that are given to each group of students as they demonstrate different content to depict a true understanding of physical and chemical changes, while integrating elements from the periodic table. Group driving questions focus on elements and types of change and are based on 5 groups. The following questions are used: (1) *Show evidence of a physical v. chemical change and list the elements;* (2) *Illustrate an example of a chemical change using Fe and O and identify the group characteristics for these elements;* (3) *Show/illustrate or develop an example of a physical change using one element from group 2;* (4) *Show/illustrate an example of a chemical change with three elements and identify the group;* and (5) *Illustrate an example of a chemical change with 2 elements from group 1.* Students had to answer these questions with backup evidence and pictures to support their work. Student groups also had to present their findings at the end of class.

Teacher Observations: I noticed that the students got really engaged as they tried to answer the questions. They were in the hall, classroom, outside and on the campus trying to find the answer to their driving question. Group 2, for example, had to “*Illustrate an example of a chemical change using Fe and O and identify the group characteristics for these elements.*” This group debated examples of physical and chemical changes and devised ways to illustrate examples using digital imagery. This group’s discussions focused on Fe pill supplements used by humans and O humans breathe. They also decided to use Fe that is found in plant food and O produced during photosynthesis in grass. So they combined both thoughts into 1 picture.

Just seeing them “get after it” allowed me to get a better understanding on how they were able to understand the concepts and periodic table.