

Periodic Table Classroom

Summary

Students will discover the complexity and correlations of the periodic table by creating their own periodic table in the form of a seating chart, using information about classmates

Main Core Tie

Science - Chemistry

[Standard 1 Objective 3](#)

Time Frame

5 class periods of 45 minutes each

Group Size

Small Groups

Materials

Provide each group with:

a blank seating chart

a class roster

Background for Teachers

Activity Duration:

90 min (2 class periods) 70 Min (2.5 class periods)

Teaching and Learning Strategies:

This is an inquiry project so do not tell students how to do their chart. Instead ask leading questions that will let them find the answers. This project generates some frustration -- be prepared to let them struggle.

This is also designed to be a cooperative learning activity. Make sure the recorder reports the results of the round-robin reflection process. The assessment of this activity is to have each group re-arrange the students in the room and to explain how, why and what they used to arrange the students.

Invitation to Learn:

Tell students they need to re-arrange the seating chart into the most information rich manner possible.

Student Prior Knowledge

Students should have a basic understanding of an atom, an element, and what makes elements unique. Students should also be able to work in cooperative learning groups.

Instructional Procedures

Elicit from the class different ways that a person could be scientifically grouped (must be observable, quantitative, and testable -- for example, grade, birthday, hair color, shoe size, eye color, height, etc.)

Show them the periodic table and briefly show them that there is organization each direction you look at it. Advise students that they may not ask about personal information that might embarrass or discomfort their peers.

Tell them they may work in groups of no more than 4 (four) and they must use cooperative learning techniques. Their task is to decide what information they will sort using, collect the information, arrange their peers on the seating chart and attach a group discussion of how and why they made those choices.

Select as many groups as time allows and have the group seat the class and have the class figure out how they were sorted and why.

Summary of Learning:

How did this activity mimic the organization of the periodic table?

What information about an element is available by noting its position on the periodic table?

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)