Lesson Title	Periodic Trends
Length of Lesson	1 day
Created By	Kimberley Leggett
Subject	Science
Grade Level	10^{th}, 11^{th}, 12^{th} (Chemistry)
State Standards	Chemistry: 3 b
DOK Level	DOK 2
DOK Application	Analyze; compare; make observations; interpret
National Standards	9-12: B: Physical Science
Graduate Research Element	I use Carbon everyday in my research and knowing the trends of the periodic table are very useful.

Student Learning Goal:
Physical Science: 3 Develop an understanding of the periodic table: (b) Analyze patterns and trends in the organization of elements in the periodic table and compare their relationship to position in the periodic table.

- Atomic number, atomic mass, mass number, and number of protons, electrons, and neutrons in isotopes of elements
- Periodic properties

National Science Education Standards of Content 9-12
B: Structure and Properties of Matter

- An element is composed of a single type of atom. When elements are listed in order according to the number of protons (called the atomic number), repeating patterns of physical and chemical properties identify families of elements with similar properties. This "Periodic Table" is a consequence of the repeating pattern of outermost electrons and their permitted energies.

Materials Needed (supplies, hand-outs, resources):
Smart board and Jeopardy game

Lesson Performance Task/Assessment:
Formative: We will have an opening discussion on the periodic table and the trends that go along with it.

Summative: We will have a team game of Jeopardy using the Smart Board

Lesson Relevance to Performance Task and Students:
The students will be able to recognize the different trends that are associated to the Periodic Table.

Anticipatory Set/Capture Interest:

The Jeopardy game will be used after the lecture to enforce the trends they have just learned.

Guided Practice:
Teacher lecture on the periodic table and all trends associated with it. After the lecture the students will use this knowledge to compete in a Jeopardy game.

Independent Practice:
Students will apply their understandings of this knowledge in a game of Jeopardy

Remediation and/or Enrichment:
R: Individual IEP
E: More intense handouts

Check(s) for Understanding:
Which element has the smallest/largest radius?
Which element has the highest Ionization energy?
Which element has the lowest electro negativity?

Closure:
A teacher guided summary discussion

Possible Alternate Subject Integrations:
The Jeopardy game can be integrated into almost any other subject

Teacher Notes: