Elements in the Classroom and the Real World

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Vetted Project: Students researched their element from the Periodic Table of Elements for the usual information needed for Chemistry and more. Then they researched the uses in the real world for the element. Through this project, students were able to demonstrate how the element affects everyday life, becoming much more than just a symbol in a scientific chart! Sustainability: Eventually the tiles will be hung like a periodic table. Driving Question: Why is it important for everyone to know about the elements not just learn the very basics in the classroom? Student Reflection: Students on the whole found the knowledge interesting, and didn't mind the work. Many complained about the interview process, and not having more time to do the project. Teacher Reflection: Students were engaged in the painting part but did not truly understand what they had discovered. Would need more time to: discuss with each group what they found out; time to give a group presentation to other classmates; some sort of feed back from classmates in the middle; possibly arrange for some actual lab work for each element. Lessons Learned: I would adjust timing, provide more time for lab work, and investigation/questioning regarding the uses of the elements. I would also look into obtaining speakers to make presentations on the most common elements. Teacher Rating: 3 out of 3 (Neutral)

I. Authenticity

Demonstrating

Exhibit / Contest

Producing / Revising Model or Prototype

Presenting

Leverage Media Techologies

Utilize Visuals

II. Media Produced

Internet Media & Computer-Assisted Drawings: Using QR code to take observer to Google document which holds the information including: explanation of tile drawing, basic facts, and interview with person in the field. Digital Content: Used tile glaze to draw examples of use in the real world. Will be mounted in correct order once all elements have been done.

Digital Content

Digital Arts / Graphics

I. Parameters & Feasibility

Project Timeframe

5-6 Weeks

Assessment Timeframe

Within a Class Period

of Project Members Individual

Pair

Small Group

Grade Level

High School (Grades 9-12)

Authentic Audience / Evaluators

Peers

Teachers & Administrators

II. Intended Learning Outcomes

Creativity

Brainstorm

Design / Create

Elaborate / Expand

Communication

Terms, Concepts or Calculations

Collaboration

Assume Shared Responsibility Value Contributions Made by Others

Instilled Citizenship Values

Lifestyle Respecting Environmental Resources

Social Responsibility

III. Success Skills & Depth of Knowledge

Cognitive Demand

Comprehending / Understanding

Applying

Analyzing Creating

Learning Styles / Intelligences

Interpersonal / Social

Logical / Mathematical

Assessment Structures / Resources

Interviews / Conferences

Rubrics

IV. CTEs & Disciplines

Since the elements are used in every field, different students engaged in different areas.

Sciences



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