Chemistry Review—Odd One Out

Lesson Overview

This lesson was designed to formatively assess student understanding of SC 8th Grade Chemistry standards. Students used an adaptation of I think, ,We think combined with Odd One Out to review the content. After individually recording their thinking about which term was the "odd one out", students were placed in groups of 4 or 5 to come to consensus about the "odd one out" as a group.

Standards Addressed

SC 2005 7-5 The student will demonstrate an understanding of the classifications and properties of matter and changes that matter undergoes.

SC 2014 7.P.2 The student will demonstrate an understanding of the structure and properties of matter and that matter is conserved as it undergoes changes.

Disciplinary Literacy Best Practices

Odd One Out
I think, We Think

Lesson Plan

Time Required: 1 class period

Disciplinary Vocabulary: weight, density, melting point, boiling point, burning, oxygen, carbon, calcium, water, elements, compounds, physical properties, chemical properties, physical changes, chemical changes, mixtures, compounds, heterogeneous mixture, homogeneous mixture, malleable, ductile, conductor, brittle, metals, nonmetals, acids, bases, pH paper, litmus, and phenolphthalein.

Materials Needed: Odd One Out sheet

Assessment: completed Odd One Out sheet; student dialogue

Engage

- Explain to students that they will be doing an "Odd One Out" to review lessons and activities completed from the chemistry unit and to assess what they have learned from that unit.
- In order to complete an Odd One Out, they must read all choices provided in the left column and decide which one does not belong and why. Students should use their knowledge of chemistry to provide evidence to support their choice of the "odd one out."
- The "Odd One Out" strategy is paired with "I Think, We Think". Before moving to small groups, each student will individually complete the "I think" column on the worksheet. They will identify the "odd one out" and provide evidence to support their reasoning.

Explore

- After students have individually recording their thinking and evidence for each group of items, students should be grouped in small groups of 4 or 5 to discuss their individual thinking and come to consensus on an "odd one out" for each row.
- Before determining the consensus, each student should share their odd one out and why they chose it. Then, group members dialogue and determine if they can come to a group consensus about the odd one out.
- Group members record responses in the "We Think" column and justify their thinking.
- The teacher should facilitate group dialogue and ask questions to assist groups with reaching a consensus if needed.
- If groups cannot agree on the Odd One Out, they may record more than one answer in the "we think" column but must also record names with each response.

Explain

- The teacher will facilitate whole group dialogue and allow groups to share their "We Think" column with the whole class and explain why they chose each odd one out. **Notice which groups have correctly chosen the odd one out and provided the correct justification.

Teacher Reflections and Biographical Information

As a result of this lesson I had a better understanding of student misconceptions and what I needed to readdress before giving a summative assessment on the unit. My students seemed to enjoy this strategy and deeply discussed their thoughts. I plan on using this strategy more often as a formative assessment.

Lesson Author:

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Odd One Out	Which one I think is the Odd One Out and why	Which one we think is the Odd One Out and why
Weight Density Length Color		

Odd One Out	Which one I think is the Odd One Out and why	Which one we think is the Odd One Out and why
Melting Point Burning Boiling Point Density		

Odd One Out	Which one I think is the Odd One Out and why	Which one we think is the Odd One Out and why
Oxygen Carbon Water Calcium		

Odd One Out	Which one I think is the Odd One Out and why	Which one we think is the Odd One Out and why
Salad Kool-Aid Soup Trail Mix		

Odd One Out	Which one I think is the Odd One Out and why	Which one we think is the Odd One Out and why
Malleable Ductile Conductor Brittle		

Odd One Out	Which one I think is the Odd One Out and why	Which one we think is the Odd One Out and why
pH paper triple beam balance litmus phenolphthalein		