Krug Chemistry - Deep Run Daily Planning Guide

Date of Lesson: Q1 Day 20 - Unit 3 Test

Topic /Big Questions: (Question Stems & Question Creation Chart)

- How has the model of the atom changed over time?
- What merits and limitations did each model have?
- What are the properties of subatomic particles?
- How do subatomic particles determine identity of elements?
- How does abundance of isotopes affect atomic mass?
- How do electrons orbit the nucleus?
- How are electrons arranged in orbitals?
- How do valence electrons affect chemical reactions?

State SOL

Unpacking the Standards (Video explanation shown at 3:18)

CH1

CH.1 The student will demonstrate an understanding of scientific and engineering practices by f) obtaining, evaluating, and communicating information

CH 2

The student will investigate and understand that elements have properties based on their atomic structure. The periodic table is an organizational tool for elements based on these properties. Key information pertaining to the periodic table includes a) average atomic mass, isotopes, mass number, and atomic number; b) nuclear decay; d) electron configurations, valence electrons, excited electrons, and ions; and e) historical and quantum models.

Visible Learning (For the three items with asterisks*, think from a student perspective. Use simple language)

*What am I learning today? History of Atom, Atomic Structure, Average Atomic Mass, Nuclear Chemistry, Electron Configurations. Heat treating metals rearranges their atomic structure and changes their physical properties.

***Why is it important?** The properties of elements, to include the periodic trends, are based on their atomic structure. The periodic table is an organizational tool that allows for the prediction of chemical and physical properties.

*How will I know I've learned it? I will score 80% or higher on the Unit 3 Test.

Differentiation strategies:

Unit 3 Test Review - online in Schoology

Morning Test Review - open to all students

Short Review - beginning of each class

Accommodations and/or modifications are being met for students with IEP's/504's.

Unit Test available on Schoology or paper; small group testing; extended time

Daily Plan/Sequence of Instruction:

Teacher will answer last minute questions from the Unit 3 Test Review, which is due by the beginning of class. Teacher will offer a morning session test review for 45 minutes before school. (Open to all students – CP and Honors). Teacher will do a short review session at the beginning of each class (15 minutes). Students will use the rest of class time to complete the test.

Assessments (List all <u>formative</u>/<u>summative</u> assessments used to check for understanding during this lesson. Summative assessments may occur during a different class period.):

Unit 3 Test Review – (summative) due at the beginning of class

Unit 3 Test – (summative) due by the end of class

After assessing today's lesson are you and your students comfortable moving forward with your next objective?

Yes - students have scored 80% or higher on the Unit 3 Test

No, remediation required to proceed – students, who fail the unit test, may visit during One Lunch to do test corrections in order to earn a 65% passing score.

Teacher reflection: Small group testing must be requested at least two days in advance.