

HISI - Lesson Outline

Module Title Discovering the Periodic Table LS Team A.Crosswhite, N. Kiser, O. Tomlin, B. Russ Grade level: 5

Lesson # 1 Title: Discovering the Periodic Table	Number of Minutes: Eight -45 minute periods
<p>Mathematical purpose: To be able to analyze information in a table, find the relationships of categories, and be able to create and show knowledge of the relationships of a chosen subject matter.</p>	<p>Scientific Purpose: To understand the make -up of elements and how they relate to each other on the periodic table.</p>
<p>Materials needed: Computer Paper pencil/markers Worksheet for Periodic table Science book/information about the Periodic table</p>	<p>Academic vocabulary: Categorize Classify Periodic table Elements Place value Atoms Molecules Nucleus Neutrons Protons Electrons Atomic Mass, Atomic Number</p>
<p>Common Core Standards (copy and paste):</p> <ul style="list-style-type: none"> → CCSS.MATH.CONTENT.5.G.B.4 → CCSS.MATH.CONTENT.5.G.B.4 → CCSS.MATH.CONTENT.5.NBT.A.3 → CCSS.ELA-Literacy.W.5.2.e → CCSS.ELA-Literacy.W.5.2.d → CCSS.ELA-Literacy.W.5.2.b → CCSS.ELA-Literacy.W.5.2.a 	<p>Next Generation Science Standards (copy and paste):</p> <p>(5-PS1-3) Using Mathematics and Computational Thinking in 3–5 builds on K–2 experiences and progresses to extending quantitative measurements to a variety of physical properties and using computation and mathematics to analyze data and compare.</p>

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<p>→ CCSS.ELA-Literacy.W.5.2</p>	
<p>When students are finished they will understand: The smallest particle of matter is an atom. What makes up an element and what is an atom. Why each element is placed where it is on the periodic table of elements. The student will be able to identify the nucleus, the neutrons, protons, electrons. Students will be able to create their own periodic table by identifying characteristic of any type of objects.</p>	<p>What are teacher questions or prompts? When students are creating their own periodic table and then looking at the real periodic table, teachers will ask the following questions:</p> <ul style="list-style-type: none"> → what do you notice? → What do the numbers represent? → What do the colors represent? → Why do you think there was spaces left in the original periodic table? →
<p>What are questions you anticipate students will have?</p> <p>Why does the line go down? Why does the line go up?</p> <p>Why did the trash stay the same?</p>	<p>What are misconceptions students might have?</p> <p>They will think that waste less than they do.</p>

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General outline of the lesson:

Hook

Introduction of the focus for the day/recording sheet

Predictions

Analyzing the data collected

Discussion on increase/decrease of waste off of table

Plot data

Look for trend

Compare data from week 1/week 2 off of line graph

Conclusion

Supplemental files/resources will follow