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<http://rpsec.usca.edu/CE-MIST/>

## Unit Plan Overview for Interdisciplinary Traveling Trunk

Title of Unit: A Gebra Named AL

Grade Level: 7

Duration: 3 weeks

Developed by: Jeni Lambert, Erria Daniels, Jennifer Craig, Marianne Berst, & Claire Thrower

Aiken Writing Project Summer Institute Teacher/Consultant: Jennifer Craig

South Carolina Academic Standards for two or more content areas:

ELA (CCSS)	Math (CCSS)	Science	Social Studies
7.RL.1, 7.RL.2, 7.RL.4-5 7.W.1-4, 7.W.1-5 7.W.2, 7.W.3 7.L.1-3, 7.L.3, 7.L.4	7.RP.1,.2 7.NS.1,2. 7.EE.1,.2,.3 7.SP.1,.2,.3,.4,.5,.6,.7.,8 7.G.3	7-5.1 through 7-5.10	7-1.1

<b>Class Novels</b>	<ul style="list-style-type: none"> <li>• (math) <i>A Gebra Named Al</i> by Wendy Isdell</li> <li>• (ELA) <i>Journey to the Center of the Earth</i> by Jules Verne</li> </ul>
<b>Literature Circle Novels</b> (4 copies of each)	<ul style="list-style-type: none"> <li>• <i>The Man Who Counted: A Collection of Mathematical Adventures</i> by Malba Tahan</li> <li>• <i>Fractals, Googols, &amp; Other Mathematical Tales</i> by Theoni Pappas</li> <li>• <i>Imaginary Numbers: An Anthology of Marvelous Mathematical Stories, Deversions, Poems, and Musings</i> by William Frucht</li> </ul>
<b>Text Set</b>	<ul style="list-style-type: none"> <li>• <i>The Journey of Al &amp; Gebra to the Land of Algebra</i> by Bethanie H. Tucker</li> <li>• <i>The Number Devil: A Mathematical Adventure</i> by Hans Magnus Enzensberger</li> <li>• <i>The Adventures of Penrose the Mathematical Cat</i> by Theoni Pappas</li> <li>• <i>The American Hoboes: Riders of the Rails</i> by Fran DeLorenzo</li> </ul>
<b>Essential Questions</b>	<ul style="list-style-type: none"> <li>• What effect can an unexpected adventure have on a character's personality development?</li> <li>• How does historical context change a text's meaning?</li> </ul>
<b>Vocabulary</b>	periodic table (and all associated elements), disconsolately, fantasy, imaginary number, gallop, order of operations, pun, suspicion, jubilant, jovial, obligingly, bewildered, inquired, confident, isotope, neutrons, protons, electrons, atomic mass
<b>Materials</b>	<ul style="list-style-type: none"> <li>• <i>Using a Gebra Named Al in the Classroom</i> by Wendy Isdell</li> <li>• Standard Deviants: Algebra Adventure - Learning Algebra (DVD)</li> <li>• Periodic Table Card Deck</li> <li>• Periodic Table Toss-Up Ball</li> <li>• Elements Challenge</li> <li>• The Hobo Minstrel (CD)</li> </ul>

## CE-MIST Unit Plan for *A Gebra Named Al*, Page 2 of 3

<b>Activities</b>	<ul style="list-style-type: none"> <li>• Students will read <i>A Gebra Named Al</i> in math class.</li> <li>• Students will enhance their algebra knowledge by watching Standard Deviants: Algebra Adventure - Learning Algebra (DVD).</li> <li>• Students will use the Pi chart to guide them as they determine Pi using circumference and diameter.</li> <li>• Students will use “Periodic Table Card Deck” to form a periodic table as a class that will be over 7 feet long.</li> <li>• Students will use “Elements Challenge” to race against the clock in a Round Robin “I Have, Who Has” game to help them understand common elements, their chemical symbols, and real-life applications of the elements.</li> <li>• Students will practice naming element symbols by tossing the ball to each other, giving the element name for the number and symbol on which their left thumb lands.</li> <li>• Students will complete a pre-reading by using the internet to research the novel’s historical context. Students will be working in pairs and looking for scientists, new scientific theories, explorers, available technologies of the time and what was in the works, etc. The students will present their findings to the class.</li> <li>• Another pre-reading strategy will tackle some of the vocabulary found within the text. Several methods will be used, including; power vocabulary, word wall, creating illustrated words and keeping a running list of terms that need to be defined or clarified.</li> <li>• Students will create diagrams/illustrations of the bisected Earth, including the descent and subsequent discoveries. Students will use ratios and proportion formulas to assure the illustration is accurate.</li> <li>• The social studies teacher will use the hat as a way of “hooking” the student’s attention of adventures in world history.</li> <li>• Have the students identify which European powers colonized in each of the different colored areas on the map at the website: <a href="http://www.shmoop.com/pictures/index/history/hist00038/1750_european_colonization_of_america01.html">http://www.shmoop.com/pictures/index/history/hist00038/1750_european_colonization_of_america01.html</a></li> <li>• Have the students label a map of Europe on a blank world map or on a dry erase map if available. Have them draw lines from European countries to their respective colonies. Then have them interpret the influence of each European country based upon their spread across the globe either through discussion or in written form.</li> <li>• Have the students color code a blank map of the Americas to represent the European powers that colonized there.</li> </ul>
<b>Pre-Writing and Writing Activities</b>	<ul style="list-style-type: none"> <li>• Students will write a math story or poem with algebra topics.</li> <li>• Students will keep a Reader’s Response Journal which will contain their inferences, impressions, unfamiliar words, connections (text to text, text to self and text to world).</li> <li>• Students will create a travel guide to the center of the Earth in the form of a pamphlet or brochure using details and events from the novel.</li> <li>• <i>Journey to the Center of the Earth</i> Portfolio, containing pieces completed prior to, during and after the reading.</li> <li>• Have students write a letter back home as if they were an explorer describing their experiences.</li> </ul>

## CE-MIST Unit Plan for A Gebra Named AL, Page 3 of 3

<b>Accommodations/ Differentiating Instruction</b>	Multisensory activities address visual, auditory, and kinesthetic modalities. Students with musical and spatial capabilities will have opportunities to excel. Students will work collaboratively on several projects. Open-ended assignments provide flexibility. A variety of leveled books are provided.
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**Attached: Daily Lesson Plans**