Connecting to the *Next Generation Science Standards* (NGSS Lead States 2013)

Dimension	**Classroom Connection**
Science and Engineering Practice Developing and Using Models: Develop a model to predict and/or describe phenomena. (MS-PS1-1), (MS-PS1-4) Analyzing and Interpreting Data: Analyze and interpret data to determine similarities and differences in findings. (MS-PS1-2)	Students create models to explain the nature of the "magic trick" phenomena. Students analyze data and determine densities in order to create their own density column and demonstrate how the liquids in the column divide themselves based on their properties.
Disciplinary Core Idea PS1.A: Structure and Properties of Matter Each pure substance has characteristic physical and chemical properties (for any bulk quantity under given conditions) that can be used to identify it. (MS-PS1-2), (MS-PS1-3)	Students use substances' densities to categorically create their density columns.
Crosscutting Concepts Patterns: Macroscopic patterns are related to the nature of microscopic and atomic-level structure. (MS-PS1-2) Cause and Effect: Cause and effect relationships may be used to predict phenomena in natural or designed systems. (MS-PS1-4)	 Students sort unknown liquids based on their densities to create a column. Students predict the cause of the "magic trick" phenomena.

Connections to the *Common Core State Standards* (NGAC and CCSSO, 2010)

ELA/Literacy

RST.6-8.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks. (MS-PS1-6)

Mathematics

MP.4 Model with mathematics. (MS-PS1-1), (MS-PS1-5)
6.SP.B.5 Summarize numerical data sets in relation to their context. (MS-PS1-2)