

NGSS Correlations

Poly Density Kit DEN-460

Elementary

2-PS1-1

Students can use the Poly Density Kit in an investigation to describe and classify different kinds of materials by their observable properties.

2-PS1-2

Students can analyze data obtained from testing the Poly Density Kit to determine which materials have the properties that are best suited for an intended purpose.

5-PS1-1

Students can use the Poly Density Kit in an investigation to develop a model to describe that matter is made of particles too small to be seen.

5-PS1-3

Students can make observations and measurements of the different materials in the Poly Density Kit to identify materials based on their properties.

Suggested Science Idea(s)

This Poly Density Kit is an awesome demonstration for density, solubility, miscibility and the salting effect. All students will be amazed by the actions the beads take. Due to the unexpected results in the bottle, secondary students have to use science to dissect an explanation for the layering. Great inquiry opportunities for all students. Some teachers never give away the secret.

Middle School

MS-PS1-1

Students can use the Poly Density Kit in an investigation to develop models to describe the atomic composition of simple molecules and extended structures.

High School

HS-PS1-1

Students can use the Poly Density Kit in an investigation to predict properties of elements. Students can use the Periodic Table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.

HS-PS2-6

Students can use the Poly Density Kit in an investigation to communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials.

2-PS1-1

2-PS1-2

5-PS1-1

5-PS1-3

MS-PS1-1

HS-PS1-1

HS-PS2-6

Students can use the Poly Density Kit in an investigation of density. Shake up the bottle and let them sketch the various motions of the beads. For primary grades, a second bottle can be prepared with some food coloring added to the water solution, to bring a more concrete explanation. Secondary students may be able to use chemistry to decipher the paradox.

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