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

**Standard: 2-PS1 Matter and Its Interactions**

[**https://www.nextgenscience.org/dci-arrangement/2-ps1-matter-and-its-interactions**](https://www.nextgenscience.org/dci-arrangement/2-ps1-matter-and-its-interactions)

The materials/lessons/activities outlined in this article are intended for use in pre-K classrooms. Science experiences in preK by their nature are foundational and relate to early elements in learning in learning progressions that facilitate later learning in K–12 classrooms. As the *NGSS* performance expectations are for K–12, we have not included specific performance expectations but have identified the disciplinary core ideas that are addressed to show the link between these foundational experiences and students’ later learning.

**Science and Engineering Practice**

Analyzing and Interpreting Data

* Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems

**Connection to Classroom Activity**

* Students observe the effect of shape on an impression.
* Students repeat actions as a way of interpreting that a pattern of effect is noticed in relationships of the force and shape of objects to their impressions.
* Students describe the patterns they observe (it’s deep, it takes time to make it deep)

**Crosscutting Concepts**

Cause and Effect

* Events have causes that generate observable patterns.
* Simple tests can be designed to gather evidence to support or refute student ideas about causes.

**Connection to Classroom Activity**

* Students test the way that varying pressure affects the depth of an impression.
* Students experiment in many ways to test the cause and effect of objects on their impressions in the surface of play dough.

Patterns

* Patterns in the natural and human designed world can be observed, used to describe phenomenon, and used as evidence.

**Connection to Classroom Activity**

* Students repetitive imprints develop into observable patterns.
* Students experiment with various sizes of wood blocks to create patterns in the playdough.

**Performance Expectation**

2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.