

Educational Resources from *Phenomenon Science Education*

Student Proficiency Goals for **NGSS 2-PS1-3**



Information about 2-PS1-3

NGSS Performance Expectation 2-PS1-3.

Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

Clarification Statement.

Examples of pieces could include blocks, building bricks, or other assorted small objects.

Assessment Limits.

No specific assessment limits are listed for this Performance Expectation.

Science and Engineering Practice – Constructing Explanations and Designing Solutions

- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena.

Disciplinary Core Idea – PS1.A: Structure and Properties of Matter

- Different properties are suited to different purposes.
- A great variety of objects can be built up from a small set of pieces.

Crosscutting Concept – Energy and Matter

- Objects may break into smaller pieces and be put together into larger pieces, or change shapes.

Educational Resources from *Phenomenon Science Education*
Student Proficiency Goals for **NGSS 2-PS1-3**



Student Proficiency Goals

SEP (Constructing Explanations and Designing Solutions):

- Students make observations about the characteristics of existing objects.
- Students take objects apart and observe characteristics of the pieces.
- Students put the pieces, which were part of preexisting objects, together in new ways and observe the characteristics of the new objects.
- Students use evidence generated from their observations to describe a chain of reasoning that relates one object to its pieces, and also to a new object or objects created from those pieces.

DCI (PS1.A Structure and Properties of Matter):

- Students know that many objects can be taken apart and their pieces put together to create new objects.
- Students know new objects that are built from pieces that used to be parts of other objects can have characteristics that are different from the original objects, even though they are built from some of the same pieces.

CCC (Energy and Matter):

- Students consider that many objects are made of pieces and many of these objects can be broken into smaller pieces.
- Students consider that pieces from many objects can be put together in many different ways to build new and different objects with new and different characteristics.