GRASPS
UNIT: MATTER
SUBJECT: Science – Grades 4

ESSENTIAL QUESTION(s):

- What role does matter have in the universe?

G R A S P S	
Goal	**Goal:** Design and perform an experiment effectively to classify the mystery substance.
Role	**Role:** You are a scientist and have been given a mystery substance by your mad scientist boss (teacher) who has managed to mix up all of the labels. Individual or Group Assignment (Based on student strength and needs).
Audience	**Audience:** Your mad scientist boss (teacher).
Situation	**Situation:** Solve the mystery by designing an experiment to classify the mystery substance as either a solid, liquid, or gas. Focus on identifying properties of matter using your senses (except taste!).

Performance or Product	**Performance or Product:** You will submit your lab report to your mad scientist boss. It will include the procedure you used to classify the state of your mysterious substances. Please include a hypothesis before you begin your experiment. Please include your observations in a table format and explain any patterns that you found. Finally, you may make a inference/conclusion to classify the state of the mysteriy substance. In your journal, you can write changes that were made to your original hypothesis during the process of conducting your experiment as you gathered more information.
Standards	**Standards:** Your lab report should include all components (hypothesis, procedure, observations, data, inference/conclusions). You will also include a journal where you will write about your thoughts and ideas (as they may progressively change) during the experiment. Criteria is written on left sidebar.

Differentiation	**Differentiation:** As per individual needs, students who require assistance will be given a basic outline of procedures that they might choose to use when designing their experiment. Also, they can have the option of a few different labels of possible mystery substances to help them narrow down the classification of the mystery substance. Students may record, use a scribe, type, or use visuals to create their lab report as necessary. According to the needs, students may also work in pairs/groups. Extension: Students can predict the identity of the item and inquire into its properties (boiling point, melting point, freezing point).