Name: _____ Section: _____

Elementary Eruption - Your Phenomenon

According to Merriam-Webster Dictionary, a phenomenon is "something (such as an interesting fact or event) that can be observed and studied and that typically is unusual or difficult to understand or explain fully." For this lesson, you were presented with a phenomenon that had to be explained after engaging in scientific practices (SEPs), considering disciplinary core ideas (DCIs), and highlighting important themes, or crosscutting concepts (CCCs). Apply your understanding of the different ideas used in this lesson to complete the four prompts below.

1. Come up with a phenomenon that can be explained by using some of the same ideas and themes from the lesson. **Your phenomenon does not have to be phenomenal!**

2. Check the box of any/all DCIs from the lesson that apply to your phenomenon.

- ❑ Substances are made from different types of atoms, which combine with one another in various ways. Atoms form molecules that range in size from two to thousands of atoms.
- ❑ Each pure substance has characteristic physical and chemical properties (for any bulk quantity given conditions) that can be used to identify it.
- ❑ Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different molecules, and these new substances have different properties from those of the reactants.
- ❑ The total number of each type of atom is conserved, and thus the mass does not change.
- ❑ Some chemical reactions release energy, others store energy.

3. Check the box of any/all CCCs from the lesson that apply to your phenomenon.

- **Patterns** - Macroscopic patterns are related to the nature of microscopic and atomic-level structure.
- **Scale, Proportion, and Quantity -** Phenomena that can be observed at one scale may not be observable at another scale.
- **Energy and Matter -** Matter is conserved because atoms are conserved in physical and chemical processes.

4. Provide an explanation for your phenomenon. Be sure to incorporate any/all of the identified DCIs and CCCs in your explanation.