# Patterns of Change

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| Criteria | 3 pts Full Marks | 1 pts Partial Marks | 0 pts No Marks | Pts |
| Substances | The student selected two substances to experiment with that were not baking soda and vinegar and completely filled out the first three items in their plan. | The student selected two substances to experiment with that were not baking soda and vinegar and filled out most of the first three items in their plan. | The student selected baking soda and vinegar as their substances. // The student filled out less than half of the first three items in their plan. | 3 pts |
| Steps | The student wrote more than one step they would take in the experiment. | The student wrote one step for the experiment. | The student did not write any steps for the experiment. | 3 pts |
| Expected Changes | The student wrote an expected change for every category. | The student wrote an expected change for most of the categories. | The student wrote an expected change for less than half of the categories. | 3 pts |
| Results Description | The student wrote a description of the results for every category. | The student wrote a description of the results for most of the categories. | The student wrote a description for less than half of the categories. | 3 pts |
| Chemical Reaction Reasoning | The student correctly identified whether a chemical reaction had occurred and gave at least two accurate supporting reasons for their answer. | The student correctly identified whether a chemical reaction had occurred and gave one accurate supporting reason for their answer. | The student did not correctly identify whether a chemical reaction had occurred. // The student did not give any accurate supporting reasons for their answer. | 3 pts |
| UT.8.1.3 Plan and conduct an investigation and then analyze and interpret the data to identify patterns in changes in a substance’s properties to determine whether a chemical reaction has occurred. Examples could include changes in properties such as color, density, flammability, odor, solubility, or state. (PS1.A, PS1.B) | | | | 4 pts |
| 4 pts Exceeds Mastery | 3 pts Mastery | 2 pts Near Mastery | 1 pts Below Mastery |  |
| NGSS.MS-PS1-2 Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. | | | | 4 pts |
| 4 pts Exceeds Mastery | 3 pts Mastery | 2 pts Near Mastery | 1 pts Below Mastery |  |

## Total Points: 23