# Phase Change Assignment – Assessment Rubric

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| Criteria | 7 pts Full Marks | 3 pts Partial Marks | 0 pts No Marks | Pts |
| First Device | The student fully constructed the first device based on the design and all components are functional and safe. | The first device has one component that is missing or not fully functional. | The student has two or more missing or non-functional components. // The first device was not designed to be safe. | 7 pts |
| Modified Device | The student made modifications to the original device that reasonably could improve the device. | The student made modifications to the original device that would not reasonably improve the device. | The student did not make modifications to the original device. | 7 pts |
| Testing | The student completed the benchmark test, first device test, and modified device test. | The student completed the benchmark test and one device test. | The student did not complete the benchmark test. // The student did not complete either device test. | 7 pts |
| Presentation | The presentation includes all required sections with complete information. | The presentation is missing one required section. // The presentation is missing 1-2 key pieces of information. | The presentation is missing two or more required sections. // The presentation is missing three or more key pieces of information. | 7 pts |

## Learning Outcomes

\*\*UT.8.1.7\*\* – Design, construct, and test a device that can affect the rate of a phase change. Compare and identify the best characteristics of competing devices and modify them based on data analysis to improve the device to better meet the criteria for success. (PS1.B, PS3.A, ETS1.A, ETS1.B, ETS1.C)

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| --- | --- | --- | --- | --- |
| 4 pts Exceeds Mastery | 3 pts Mastery | 2 pts Near Mastery | 1 pts Below Mastery | 0 pts No Evidence |
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\*\*NGSS.MS-ETS1-2\*\* – Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

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| 4 pts Exceeds Mastery | 3 pts Mastery | 2 pts Near Mastery | 1 pts Below Mastery | 0 pts No Evidence |
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## Total Points: 28