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|  | Novice  1 point | On the way  2 points | Competent  3 points | Advanced  4 points |
| **Practices** |  |  |  |  |
| Asking questions |  |  |  |  |
| Developing and using models |  |  |  |  |
| Planning and carrying out investigations |  |  |  |  |
| Analyzing and interpreting data |  |  |  |  |
| Obtaining, evaluating, and communicating information |  |  |  |  |
| Using math and computational thinking |  |  |  |  |
| Constructing explanations |  |  |  |  |
| Engaging in argument from evidence |  |  |  |  |
| **Disciplinary Core Ideas** |  |  |  |  |
| [MS-ESS1-2 1.A](http://www.nap.edu/openbook.php?record_id=13165&page=173) |  |  |  |  |
| [MS-ESS1-2 1.B](https://www.nap.edu/read/13165/chapter/11#175) |  |  |  |  |
| [MS-ESS1-3 1.B](https://www.nap.edu/read/13165/chapter/11#175) |  |  |  |  |
| [HS-ESS1-1 1.A](https://www.nap.edu/read/13165/chapter/11#173) |  |  |  |  |
| [HS-ESS1-2 1.A](https://www.nap.edu/read/13165/chapter/11#174) |  |  |  |  |
| [HS-ESS1-3 1.A](https://www.nap.edu/read/13165/chapter/11#174) |  |  |  |  |
| [HS-ESS1-4 1.B](https://www.nap.edu/read/13165/chapter/11#175) |  |  |  |  |
| [MS-PS4-1 4.A](https://www.nap.edu/read/13165/chapter/9#131) |  |  |  |  |
| [MS-PS4-1 4.B](https://www.nap.edu/read/13165/chapter/9#133) |  |  |  |  |
| [MS-PS4-1 4.C](https://www.nap.edu/read/13165/chapter/9#136) |  |  |  |  |
| [MS-PS4-2 4.A](https://www.nap.edu/read/13165/chapter/9#131) |  |  |  |  |
| [MS-PS4-2 4.B](https://www.nap.edu/read/13165/chapter/9#133) |  |  |  |  |
| **Crosscutting Concepts** |  |  |  |  |
| Patterns |  |  |  |  |
| Cause and effect |  |  |  |  |
| Scale, proportion and quantity |  |  |  |  |
| Systems and system models |  |  |  |  |
| Energy and matter |  |  |  |  |
| Structure and function |  |  |  |  |
| Stability and change |  |  |  |  |