|  |  |  |  |
| --- | --- | --- | --- |
| Wednesday | February 19th, 2019 | | |
| MS-PS3-4: Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample. | | | |
|  |  | | |
| **Content**  **Objective** | Students will investigate and observe how different liquids change temperature at different rates after ice has been added to them by graphing the class set of results. | | |
|  |  | | |
| **Language**  **Objective** | Students will write to describe their investigation graph and observations of how different liquids change temperature at different rates after ice has been added to them using class discussion to identify that each liquid had a different density. | | |
|  |  | | |
| **Phenomena** | | **Connecting Vocabulary** | **Connecting Vocabulary** |
| Why is the shallow water of a lake warmer than the deeper water below it? | | Heat  Mass  Temperature | Mechanical  Electrical  Light  Sound  Thermal  Kinetic  Solid  Liquid  Gas |

|  |  |  |  |
| --- | --- | --- | --- |
| Thursday | February 20, 2019 | | |
| MS-PS3-4: Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample. | | | |
|  |  | | |
| **Content**  **Objective** | Students will investigate the effect of three different environments (heat, cold, room temp) on 50 mL of oil and the rate of energy transfer by answering their hypothesis: Does the environment surrounding a material affect thermal energy transfer? | | |
|  |  | | |
| **Language**  **Objective** | Students will write to describe the effect of three different environments (heat, cold, room temp) on 50 mL of oil and the rate of energy transfer in the format of a conclusion for their experiment. | | |
|  |  | | |
| **Phenomena** | | **Connecting Vocabulary** | **Connecting Vocabulary** |
| Why is the shallow water of a lake warmer than the deeper water below it? | | Heat  Mass  Temperature | Mechanical  Electrical  Light  Sound  Thermal  Kinetic  Solid  Liquid  Gas |

|  |  |  |  |
| --- | --- | --- | --- |
| Friday | February 21, 2019 | | |
| MS-PS3-4: Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample. | | | |
|  |  | | |
| **Content**  **Objective** | Students will write to describe the factors affecting thermal energy transfer including density, amount of matter, and environment in the type 3 format. | | |
|  |  | | |
| **Language**  **Objective** | Students will write to describe the factors affecting thermal energy transfer including density, amount of matter, and environment in the type 3 format with complete sentences, 3 factors, and a topic sentence. | | |
|  |  | | |
| **Phenomena** | | **Connecting Vocabulary** | **Connecting Vocabulary** |
| Why is the shallow water of a lake warmer than the deeper water below it? | | Heat  Mass  Temperature | Mechanical  Electrical  Light  Sound  Thermal  Kinetic  Solid  Liquid  Gas |