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| **Science – Grade 5 Physical Science** |
| **SC.5.3 Structure and Properties of Matter** | **Access Points** |
| **Standard / Indicator** | **Extension** |
| SC.5.3.1 Gather, analyze, and communicate evidence of structure and properties of matter. |   | **A** | **B** | **C** |
| SC.5.3.1.A Develop a modelto describe that matter is made of particles too small to be seen. Assessment does not include the atomic-scale mechanism of evaporation and condensation or defining the unseen particles. | Participate in investigations to describe that matter is made of particles too small to see without magnification. | Observe models or objects to describe that matter of all sizes and shapes is made of many tiny particles that can be seen only when magnified. | Using real-world objects, identify that the object is made of many smaller parts. | Given a real-world, familiar object, recognize the difference between a part of the object and the object as a whole.  |
| SC.5.3.1.B Measure and graph quantitiesto provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. Assessment does not include distinguishing mass and weight. | Participate in investigations to demonstrate that heating, cooling, and mixing substances does not change their total weight. | Use data/observation to identify that the weight of a substance before and after it is heated or cooled remains the same, and that the total weight of materials that are mixed together is equal to the weight of the individual parts of the mixture. | Identify that when a solid is melted, it has the same weight, and when a liquid is frozen, it has the same weight.  | Recognize that the weight of an object is measured using a scale.  |
| SC.5.3.1.C Make observations and measurementsto identify materials based on their properties. Assessment does not include density or distinguishing mass and weight. | Participate in investigations to identify materials based on physical properties (color, shape, size, texture, weight, temperature) that can be observed or measured. | Given materials, use observable/measurable physical properties to identify the materials or categorize the materials based on common properties. | Given a material, identify two or more physical properties of the material. | Given two materials with opposite physical properties, recognize the material with a specified physical property. |

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| SC.5.3.1.D Conduct an investigationto determine whether the mixing of two or more substances results in new substances. | Participate in investigations to determine whether mixing two or more substances results in the formation of a new substance. | Compare the observable properties of two or more substances before and after they are mixed to explain whether a new substance with different properties was formed.  | Identify evidence of the formation of a new substance after two or more substances are mixed.  | Recognize when two or more substances have been mixed or not mixed.  |