**Rubric for 5th Grade Modeling of Particles and Conservation of Matter in Relation to Phenomenon of a Match Burning**

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| **Main Target** | **1** | **2** | **3** | **4** |
| **Students create a model to help explain what’s happening at the particle level when a match burns.** | Student creates a model that shows visible objects (the match before and after in this case).  He/she provides some observations of these objects, such as the match before and after it burns. | Student shows a connection between visible matter and particles too small as part of their model.  Through before and after models, student shows that a change has taken place in this phenomenon. | Student creates a model that shows and describes visible objects (the match) and particles too small to be seen in the air and the match.  Student’s model describes and shows that the particles before and after are different, because we have new substances (e.g., ash and smoke).  With scaffolding, students is able to describe how there’s the same amount of stuff before and after within this phenomenon. | Student’s series of models clearly describes visible and particle-level changes, providing evidence that a chemical change has taken place.  Student describes through the model how the amount of stuff is the same before and after, even though the detailed weight measurement suggests it’s less. |

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