**Pre/Post Assessment Answer Key**

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| **Draw or describe your understanding before starting this project** | **Important Concept** | **Draw or describe your understanding after completing the project** |
|  | Mechanical Wear | The damage to a surface caused by interaction with another material, such as by rubbing or other abrasive processes. |
|  | Cohesion | The tendency of particles of a single substance to stick together. |
|  | Surface Tension | A property of liquids in which molecules of one substance are more attracted to each other than to molecules of another substance. |
|  | Adhesion | The tendency of particles of one substance to stick to particles of a different, dissimilar, substance |
|  | Abrasion | The wearing, grinding, or rubbing away caused by friction. |
|  | Iterate  (the process of iteration) | The process of continual redesign based on testing and refinement of an original design. |

**Design Space!**

Based on what you know about teeth and tooth brushing, and what you learned in the reading, sketch an initial design for a new brush for the Colgate Corporation that will minimize the mechanical wear on the tooth enamel while keeping the tooth smooth to prevent adhesion of bacteria. **Be sure to label the parts of your design and explain your reasoning**.

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| **My Initial Design** |
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After you finish prototyping, testing, and iteratively improving your design with your team, draw or describe your final design. **Be sure to label the parts of your design and explain your reasoning**.

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| **Our Final Design** |
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