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| **NC.3.MD.5**  **Maggie’s Jewelry Box** | |
| **Domain** | Measurement and Data |
| **Cluster** | Understand the concept of area. |
| **Standard(s)** | **NC.3.MD.5** Find the area of a rectangle with whole-number side lengths by tiling without gaps or overlaps and counting unit squares. |
| **Materials** | Jewelry box handout (attached), paper tiles (attached), scissors |
| **Task** | Provide students with a copy of the Jewelry Box Top handout, paper tiles, and scissors.  *Maggie is covering the area of the top of her jewelry box with colorful tiles. Because tiles are so expensive, Maggie needs to decide exactly how many tiles to purchase so she will not have any extra. Find out how many tiles she needs to buy. Write down a list of steps that Maggie can use to find the exact number of tiles needed to cover to the area of the jewelry box top.*  Encourage students to use precise vocabulary (i.e., tiling, unit square, square inch, gaps, overlaps) in their list of steps. |

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| **Rubric** | | |
| **Level I**  Not Yet | 1. **Level II** 2. Progressing | **Level III**  Meets Expectations |
| * Student is unable to generate a list of steps for determining. | * Student determines the area of the box top, but is unable to construct a viable list of steps explaining his/her process. ***OR*** * Student has a partially complete list of viable steps explaining his/her process for determining area. There may by some inaccuracies. * Use of specific vocabulary (i.e., tiling, unit square, square inch, gaps, overlaps) may not be evident. | * Students construct a viable list of steps explaining the process for determining area of the jewelry box top. * Student explanation includes specific vocabulary (i.e., tiling, unit square, square inch, gaps, overlaps). * Student correctly identifies the area of the jewelry box top as 18 square inches. |

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| **Standards for Mathematical Practice** |
| 1. Makes sense and perseveres in solving problems. |
| **2. Reasons abstractly and quantitatively.** |
| **3. Constructs viable arguments and critiques the reasoning of others.** |
| 4. Models with mathematics. |
| **5. Uses appropriate tools strategically.** |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Maggie’s Jewelry Box Top**

**Maggie’s One-Inch Square Tiles**