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| **NC.3.MD.3****Toni’s School Supplies** |
| **Domain** | Measurement and Data |
| **Cluster** | Solve problems involving measurement. |
| **Standard(s)** | **NC.3.MD.3** Represent and interpret scaled picture and bar graphs:• Collect data by asking a question that yields data in up to four categories.• Make a representation of data and interpret data in a frequency table, scaled picture graph, and/or scaled bar graph with axes provided.• Solve one and two-step “how many more” and “how many less” problems using information from these graphs |
| **Materials** | Field trip handout, pencils, colored pencils (optional), calculators |
| **Task** | **Part 1:*** Distribute Toni’s School Supplies handout.
* Draw students’ attention to the graph.

* Read: *Toni bought four packs of school supplies. Each pack came with four pencils, three erasers, and one pencil box. Create a bar graph to show how many of each school supply Toni has.*

**Part 2:*** Read: *Use your graph to answer each question.*
1. *How many school supplies does Toni have in all?*
2. *Toni wants to give each of the 21 students in her class a pencil. How many more pencils will she need? Justify your answer using pictures, numbers, or words.*
3. *What is another question that can be answered by looking at the data on the graph?*
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| **Rubric** |
| **Level I**Not Yet | 1. **Level II**
2. Progressing
 | **Level III**Meets Expectations |
| * Student is unable to graph data on the graph.
* Student does not identify total number of supplies.
* Student does not identify that 5 more pencils are needed.
 | Student does 1-2 of the following:* organizes data on graph with few errors
* identifies that there are 31 total school supplies.
* identifies that 5 more pencils are needed.
 | * Student correctly organizes data on graph (pencils: 16, erasers: 12, pencil boxes: 3)
* Student identifies that there are 31 total school supplies.
* Student identifies that 5 more pencils are needed.
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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. |

**Toni’s School Supplies**

Toni bought four packs of school supplies. Each pack came with four pencils, three erasers, and one pencil box. Create a bar graph to show how many of each school supply Toni has.



**Use your graph to answer each question.**

1. How many school supplies does Toni have in all? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Toni wants to give each of the 21students in her class a pencil. How many more

 pencils will she need? Justify your answer using pictures numbers, or words.

3. What is another question that can be answered by looking at the data on the

 graph?