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| **NC.4.NBT.7****Up and Away** |
| **Domain** | Number and Operations in Base Ten |
| **Cluster** | Generalize place value understanding for multi-digit whole numbers.  |
| **Standard(s)** | **NC.4.NBT.7** Compare two multi-digit numbers up to and including 100,000 based on the values of the digits in each place, using >, =, and < symbols to record the results of comparisons. |
| **Materials** | pencil, activity sheet |
| **Task** | **Up and Away**The chart below shows the flying heights of different types of aircrafts.

|  |  |
| --- | --- |
| **Type of Aircraft** | **Height (in meters)** |
| jet | 37,650 |
| rotorcraft | 12,440 |
| electrically powered aircraft | 29,524 |
| propeller aeroplane | 67,028 |
| helicopter | 10,820 |
| single engine airplane | 7,000 |

1. Which type of aircraft flew higher, the jet or the propeller aeroplane? Use <, >, or = to compare the heights. (*propeller aeroplane; 37,650 < 67,028*)
2. Which type of aircraft flew higher, the Rotorcraft or the helicopter? Use <, >, or = to compare the heights. (*rotorcraft; 12,440 > 10,820*)
3. Which type of aircraft flew higher, the electrically powered aircraft or the single engine airplane? Use <, >, or = to compare the heights. (*electronically powered aircraft; 29,524 > 7,000*)
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| **Rubric** |
| **Level I****Not Yet** | 1. **Level II**
2. **Progressing**
 | **Level III****Meets Expectation** |
| 0-1 questions are answered completely and correctly. | 2 questions are answered completely and correctly. | All 3 questions are answered completely and correctly. |

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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. |

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**Up and Away**

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3. Which type of aircraft flew higher, the electrically powered aircraft or the single engine airplane? Use <, >, or = to compare the heights.

**Scoring Examples**

**Not Yet:** The student answered one of the questions correctly. The student was inconsistent in the ability to use the correct symbol to compare the amounts.



**Progressing:** The student was able to use the correct symbol to compare the amounts in two of the questions.



**Meets Expectation:** The student was able to use the correct symbol to compare the amounts in all three questions.

