Exemplars K–12 We Set the Standards!

Standards-Based Assessment + Instruction

Preliminary Planning Sheet

Grade 4 – Hives and Nests

Domain(s)

Number and Operations in Base Ten[1]

Standard(s)

4.NBT.A.2

Mathematical Practices

MP.1 MP.3 MP.4 MP.6

Major Underlying Mathematical Concepts

- Comparing 2 multi-digit numbers using inequality symbols
- Base-10 place value system
- Number sense to 75,500

Problem Solving Strategies

- Model (manipulatives)
- Diagram/Key
- Chart
- Number line

Formal Mathematical Language and Symbolic Notation

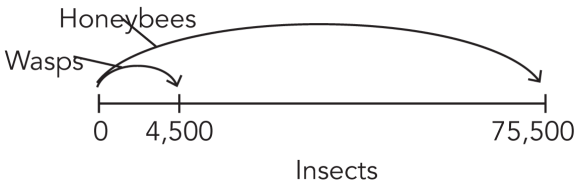
- Model
- Diagram/Key
- Chart
- Number line
- Base-10 blocks
- Equal/Equivalent to
- Inequality
- Property
- Greater than (>)/Less than (<)
- Per
- Place value
- Ones, tens, hundreds, thousands, millions
- Odd/Even
- Most likely

Possible Solution(s)

75,500 > 4,500 or 4,500 < 75,500. A honeybee hive would have the largest number of insects.

Type of Home	Insect	Number of Insects
Hive	Honeybee	75,500
Nest	Wasp	4,500

75,500 > 4,500
4,500 < 75,500



Possible Connections

Below are some examples of mathematical connections. Your students may discover some that are not on this list.

- There are 71,000 more honeybees in a hive than wasps in a nest.
- There is a total of 80,000 insects.
- The insect numbers are most likely estimations, as the number of insects in hives and nests can differ.
- Solve more than one way to verify the solution.
- 4,500 wasps have a total of 27,000 legs and 9,000 antennae.