

Preliminary Planning Sheet Grade 3 - Insects in Jars

Domain(s)

Number and Operations in Base Ten

Standard(s)

3.NBT.A.1

Mathematical Practices

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

Major Underlying Mathematical Concepts

- Rounding whole numbers to the nearest 10
- Addition/Subtraction
- Number sense to 23
- Time notation

Problem Solving Strategies

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


Formal Mathematical Language and Symbolic Notation

- Model
- Diagram/Key
- Table
- Chart
- Number line
- Total/Sum
- Difference
- Fraction
- $\frac{1}{4}$
- Hour, minute
- Most/Least
- Odd/Even
- Dozen
- Greater than ($>$)/Less than ($<$)
- Equivalent/Equal to
- Time notation
- 2:15 p.m.
- Ones, tens
- Place value

Possible Solution(s)

Ben and Sara stop collecting insects at 2:15 p.m. They let 3 ants, 2 butterflies, 0 beetles and 4 grasshoppers go from the glass jars.

Key

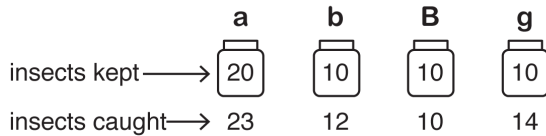
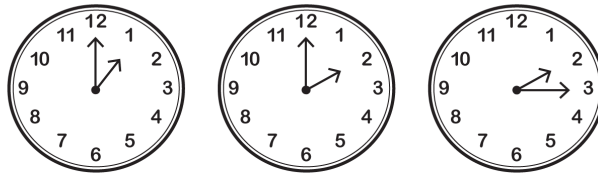
 is 1 jar

a is ants

b is butterflies

B is beetles

g is grasshopper



Insects	Number of Insects Caught	Insects Kept in Jar	Insects Let Go
Ants	23	20	3
Butterflies	12	10	2
Beetles	10	10	0
Grasshoppers	14	10	4

Possible Connections

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

- Ben and Sara caught 59 total insects.
- A total of 9 insects were let go.
- 15 minutes is $\frac{1}{4}$ of an hour.
- They caught insects for 75 minutes.
- They caught the most ants and the least beetles.
- They caught an odd number of ants.
- They caught an even number of butterflies, beetles and grasshoppers.
- They caught a dozen butterflies.
- If they caught 1 more ant they would have 2 dozen.
- Relate to a similar task and state a math link.
- Solve more than one way to verify the answer.
- They caught 11 more ants than butterflies.
- The total number of insect legs are found, $6 \cdot 40 = 240$ insect legs.