

Preliminary Planning Sheet

Grade 1 – Birds in Trees

Domain(s)

Operations and Algebraic Thinking

Standard(s)

1.OA.A.1

Mathematical Practices

MP.1 MP.3 MP.4 MP.6 MP.7

Major Underlying Mathematical Concepts

- Counting/Adding on
- Two to one
- Ordinal numbers
- Number sense to 18

Problem Solving Strategies

- Diagram/Key
- Model (manipulatives)
- Table

Formal Mathematical Language and Symbolic Notation

- Diagram/Key
- Model
- Table
- Sets
- Ordinal numbers: 1st, 2nd, 3rd ...
- Dozen, half dozen (for mothers)
- More than (>)/Greater than (>)/Less than (<)
- Equivalent/Equal to
- Halves, half of
- Pair
- Even/Odd
- Patterns
- Total/Sum
- Per

Possible Solution(s)

Hailey counts 18 birds in all.

Key	
m	mother bird
b	baby bird

Tree 1

m
|
b

Tree 2

m m
/ \
bb bb

Tree 3

m m m
/ | \
bb bb bb

Tree	Mother	Babies
1	3	6
2	2	4
3	1	2

$$6 + 4 + 2 = 12$$

$$3 + 2 + 1 = 6$$

$$12 + 6 = 18$$

Possible Connections

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

- Patterns: Mother birds +1, Baby birds +2
- Each mother has a pair of baby birds.
- More babies are added to continue the pattern.
- There are more baby birds than mothers.
- There are a dozen baby birds.
- The total number of mother birds is half the number of baby birds.
- There is an equal number of baby birds per mother.
- The baby birds in each tree is an even number.
- Relate to a similar task and state a math link.
- Solve more than one way to verify the answer.