



Math Overview

Innovation Elementary School

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Number Sense Routine: “Spinning Tops”

How many tops are in the vase?

As the clues appear, use the information to narrow the possibilities to a smaller set. After each clue, use estimation again to determine which of the remaining answers is the most reasonable.

Write down your first estimate. After each clue, you'll see if your estimate is still a possibility. After each clue, if it is no longer possible write down a new estimate – and be prepared to explain why you chose it.





Clue #1

The answer is greater than 40
and less than 80.

Clue #2

Cross off the odd numbers.

Clue #3

The answer does not include the
digit 5 or the digit 6.

Clue #4

Double 37 and
eliminate that number.

Clue #5

The answer is not a multiple of 6.



After seeing the clues, you have narrowed the possibilities to a small set of numbers. Before you see the answer, select your final estimate. Write it down, and explain to someone why you chose that number.

The Reveal
Click to see the answer.



The Math Curriculum

- Four main categories of instruction for all grade levels:
 - Number & Number Sense
 - Computation & Estimation
 - Measurement & Geometry
 - Probability, Statistics, Patterns, Functions, and Algebra

The Math Curriculum: Big Ideas

| | |
|---------------------|--|
| Kindergarten | <ul style="list-style-type: none">● Counting to 100● Building numbers to 10 (compose and decompose) |
| First Grade | <ul style="list-style-type: none">● Efficient counting to 110● Join and separate groups (practical problems) |
| Second Grade | <ul style="list-style-type: none">● Place value concepts (three-digit)● Add and subtract larger groups (begin ungrouping and regrouping)● Types of fractions |

The Math Curriculum: Big Ideas

| | |
|---------------------|---|
| Third Grade | <ul style="list-style-type: none">● Addition and subtraction fluency (six-digit)● Multiplication and division foundations |
| Fourth Grade | <ul style="list-style-type: none">● Multiplication and division fluency● Decimal foundations |
| Fifth Grade | <ul style="list-style-type: none">● Fraction/decimal equivalencies● Complex problem solving<ul style="list-style-type: none">○ All four operations, whole numbers and fractions/decimals |

Math Instruction

- Instruction takes place in a workshop model.
 - Whole group, small group, and independent practice.
- Focus on both concrete models and abstract representations (traditional algorithms).
 - Numbers, pictures/models, and words.

Supporting Math at Home

| Resource | Focus |
|--|--|
| <u>Bedtime Math</u> | Problem solving for all grade levels.p |
| <u>Open Middle</u> | Challenging computation for all grade levels *Be sure to select the appropriate grade level at the top of the landing page. |
| <u>Helping Your Child Learn Mathematics</u> | Tips for parents and family activities for all ages. |

Supporting Math at Home

Resources from the National Council of Teachers of Mathematics

| Resource | Focus |
|--|---|
| <u>Five Frame Activity</u> | Counting and addition skills for PK-Gr. 1 |
| <u>Okta's Rescue</u> | Counting practice for PK-Gr. 2 |
| <u>Concentration Game</u> | Work with equivalencies for PK-Gr. 5 |
| <u>Creating, Describing, and Analyzing Patterns</u> | Practice with patterns for K-Gr. 2 |
| <u>Ten Frame Activity</u> | Counting and addition skills for K-Gr. 2 |
| <u>Factor Game</u> | Multiplication & division facts for Gr. 3-5 |
| <u>Deep Sea Duel</u> | Computation practice for Gr. 3-5 |