

Preliminary Planning Sheet

One Thousand Seashells

Unit: Place Value (TEKS Covered in Unit: 2.2B, 2.2C, 2.3A, 2.7B)

Process Standards: 2.1A, 2.1B, 2.1E, 2.1G

Major Underlying Mathematical Concepts

- Additive Property of the Base-10 Number System: The quantity represented by the whole numeral is the sum of the values represented by the individual digits.
- Finding sums when the parts are known and differences when the whole and one part is known.
- Number sense to 1,000
- Addition/Subtraction
- Comparison

Possible Problem-Solving Strategies

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

Possible Mathematical Vocabulary/Symbolic Representation

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> • Model • Table • Diagram/Key • Number line • Total/Sum • Part/Whole • Odd/Even | <ul style="list-style-type: none"> • Minuend • Subtrahend • Difference • Amount • Expanded notation/Standard notation | <ul style="list-style-type: none"> • Rule • Per • Equivalent/Equal to • Equal share • Ones, tens, hundreds, thousands |
|---|--|--|

Possible Solution(s)

<p>Answer</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> Kayla is correct. </div>	<table border="1" style="border-collapse: collapse; margin: auto;"> <thead> <tr> <th style="padding: 5px;">Girl</th> <th style="padding: 5px;">Shells</th> <th style="padding: 5px;">Total Shells</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Emily</td> <td style="padding: 5px; text-align: center;">492</td> <td style="padding: 5px; text-align: center;">492</td> </tr> <tr> <td style="padding: 5px;">Kayla</td> <td style="padding: 5px; text-align: center;">494</td> <td style="padding: 5px; text-align: center;">986</td> </tr> </tbody> </table>	Girl	Shells	Total Shells	Emily	492	492	Kayla	494	986	$ \begin{array}{r} 492 \\ + 494 \\ \hline 800 \\ 180 \\ + 6 \\ \hline 986 \end{array} $	$ \begin{array}{r} 1000 - 1 = 999 \\ - 986 \\ \hline \end{array} \qquad \begin{array}{r} 999 \\ - 986 \\ \hline 13 + 1 = 14 \end{array} $
Girl	Shells	Total Shells										
Emily	492	492										
Kayla	494	986										

Seashells

Possible Connections

- Kayla has 2 more seashells than Emily.
- Both girls have the same number of hundreds and tens, but different numbers in the ones place.
- They both have an even number of shells. Even + Even = Even
- $494 = 400 + 90 + 4$
- Both girls had an estimation of 500 seashells.
- Solve more than one way to verify the answer.
- Relate to a similar task and state a math link.