Grade 2

○ Place Value to 1,000

∠ 2 levels

Probing Questions

- How do you know which picture matches the number?
- How can you prove that this is 10/100/1000?

What's Important Here?

This game introduces the visual representations for 1, 10, 100, and 1,000. This sets the foundation for the rest of the games.

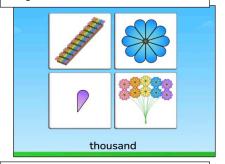
What Strategies Are Being Used?

Take advantage of the powerful visual model in your classroom discussions of place value.

ST Math.

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Numbers are shown numerically *and* using words.



The notation of the petal as the unit is important and used in later games.



Place Value Concepts - 1



طاً 2 levels

Probing Questions

- What happens when you select a column?
- What do those arrows mean?
- How do you know how many times to click in each column?

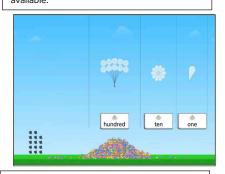
What Concepts Are Being Developed?

In level 1 students can explore counting by units with multiple attempts. The other levels restrict the number of moves, helping students count more efficiently by starting with the largest unit.

What's Important Here?

Since this game encourages counting from the left, it allows students to select more than what is needed without losing a JiJi.

The arrows indicate how many moves are available.



Have students look at the number of arrows and the petals and predict what the answer might be.



☐ Place Value to 1,000

∠ 2 levels

Probing Questions

- · How do you know which column to choose?
- How do you know about how many petals there are?

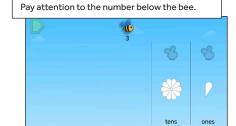
What Concepts Are Being Developed?

By discriminating between, for example, 8 hundreds, 8 tens, and 8 ones, students are developing number sense.

Emphasize the Connection

Consider using these visuals during classroom lessons to emphasize the value attached to each column.

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Level 2 introduces hundreds.



Place Value Concepts - 3



☐ Place Value to 1,000

∠ 3 levels

Probing Questions

- How do you know how many there are?
- Can you count this aloud?
- How many petals are there?

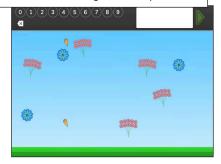
Helping Struggling Students

Use this game as a formative assessment for place value. Ask students to share how they are finding the total. How easily do they move from counting one unit to another?

Emphasize the Connection

Ask students to say the numbers using words. Connect this to expanded form as well.

This back arrow allows students to change their answer without having to reset the puzzle.



Level 3 requires zero.



∠ 3 levels

Probing Questions

- How do you know which column to use?
- How do you know which number to choose?
- How does this number match the petals shown below?

Something to Think About

While students can choose, for example, 500 by choosing only tens (or even ones), it is not the most efficient way to select the number. Watch for and facilitate students who are using less efficient strategies.

What's Important Here?

Students are translating the visual representation to the number. In the next game they have to represent the number using the visual.

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The focus is on writing the number not creating it visually. 20022 20022 22222 Columns can contain more than ten objects as long as the numeral up top is correct. 20022 20022 20022 20022

Place Value Concepts - 5



Grade 2

☐ Place Value to 1,000

乙 2 levels

Probing Questions

- How do you know how many to select in this column? What do the bouquets/flowers/petals represent?
- What does the 0 mean?

The Bigger Picture

The place value review in this objective assures that students have the foundation for rounding numbers in the next objective.

What's Important Here?

Level 2 helps students distinguish that it is the value, not the order of the columns, that matters.

Level 1 uses zero. Some students may not be familiar with the 0.



In level 2 the columns may not be in order.

