

Batty Old Lady Probability



Materials:

- *There Was An Old Lady Who Swallowed A Bat!* book
- Batty Old Lady mat & picture cards
- Batty Old Lady spinner
- Batty Old Lady recording sheet
- Batty Old Lady Writing to Learn handout

Introduction:

- Read *There Was An Old Lady Who Swallowed A Bat!* book. Use the Old Lady mat and picture cards to recall the story.
- Tell students that they will play the *Batty Old Lady Game* today. Show students the spinner and explain that they will spin the spinner. They then take that card, if they don't already have it, and place it on the Batty Old Lady mat. Next, make a tally mark on their recording sheet for each spin, whether or not they get to take a new card. And, beware of the Batty Old Lady. If students spin her, they lose their turn. The game ends when they have collected all 7 cards.

Estimation:

- Ask students to think about how many spins they think it will take for them to get all 7 cards. Have students record this prediction on whiteboards for class discussion. Lead students in discussion and record all estimates on the board or chart paper for later reference. Ask students to explain their estimates and justify the reasonableness of these numbers.

Model Playing the Game and Recording Data:

- Model playing the game and recording a tally mark for each spin. Then, fill in some other tally marks as if you have played the game and gotten all 7 cards. Model counting the tallies and recording at the end of each row. Then add the numbers in that column to find the TOTAL SPINS and write that number in the box.
- Next, show students how to record their TOTAL SPINS on the class line plot by making an X or using a post-it, for example.
- When all students understand the process, distribute spinners and materials and let students play in small groups, and record the TOTAL SPINS.

Analyze the Class Data:

- Adjust the formality of the data discussion to the mathematical development of your class, but be sure to ask how many spins MOST (mode) students in the class needed to get all 7 items for the Batty Old Lady. Discuss range, mean or median, if students are familiar with these mathematical landmarks.
- Compare the experimental class data to the students' estimates. Were they close? Why or why not? Ask students to explain why there might be differences in these numbers.

Writing to Learn:

- Ask students to write about their estimates and their actual TOTAL SPINS. They should explain any differences and what they learned from the game.
- Ask students to make their best prediction for how many spins it will take them for the second game and justify that prediction before playing a second round.



**Batty
Old Lady
Mat**

Collect all 7
cards to win the
game.



bat



owl



cat



ghost



goblin



bones



wizard

