

Using Tally Marks

Reporting Category Probability and Statistics

Topic Using counting and tallying to collect and present data

Primary SOL K.13 The student will gather data by counting and tallying.

Related SOL K.4a, c

Materials

- “Pizza Toppings” recording sheet for each group of four students (attached)
- “Pizza Toppings” spinner for each group of four students (attached)
- Pencils
- Paper clips

Vocabulary

tally mark, sort, compare, count, data, graph, object graph, picture graph, table, greatest, least, same

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

Note: Prior to instruction, cut out the attached spinners to use with a pencil and paper clip, or attach an arrow with a brad.

1. Model for students how to use the spinner and how to record the result of each spin with a tally mark on the recording sheet.
2. Distribute one spinner and one recording sheet to each group of four students. Direct each student to spin the spinner five times. Instruct one student in each group to act as the recorder. When the recorder spins, another student in the group acts as recorder. After all students have completed spinning and recording, have the groups count their tally marks and share their tally information.
3. Ask comparison questions of each group. Record the information for each group on the board, and calculate the total number for each pizza topping. Talk about how the results were alike and different.

Assessment

- **Questions**
 - Show the student a chart with two columns headed Yes and No. Beneath the Yes heading, show 20 tally marks, and beneath the No heading, show five tally marks. As the students figure out the chart and count the tally marks, explain that this chart shows the class response to a question you asked. “What might have been the question?”
 - “Why do you think someone might use tally marks to record data as it is collected?”
- **Journal/Writing Prompts**
 - Show students a set of six tally marks and a set of two tally marks. “Draw or write about what these tally marks could have recorded.”

- “You can collect data by asking your friends one question. Draw or write what this question could be about.” Record student answers with tally marks.
- **Other**
 - During daily roll call, ask a yes-or-no question for each student to answer individually. Have a student record the responses using tally marks on the board. Rotate the role of recorder so that each student has a chance to demonstrate his/her ability to use tally marks.
 - Give each student a clipboard with a piece of paper and a pencil. At the top of the paper, have each student copy a question to ask the others in the classroom (e.g., “Do you eat apple pie?”). Below the question, have students draw two columns headed Yes and No. Have students go around the room asking each other their questions and recording the responses with tally marks. After a set time, have students count the responses they recorded and report their findings to the class.

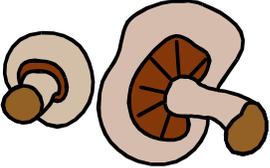
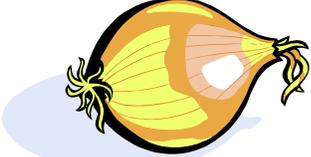
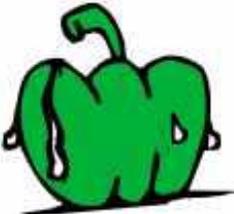
Extensions and Connections (for all students)

- Identify a song or poem that has repetitive lines. As students listen to or sing the song, have them count the recurrence of a certain word, using tally marks. Repeat with another word. Create a table, chart, or display with the class data, and discuss what the data tells us and what information we can gather from the display.
- Display a poster showing symbols for four different kinds of weather: sunshine, clouds, rain, snow. During the morning calendar activity, have students take note of the weather happening that day. Model for students how to use a tally mark to record the type of weather for that day—i.e., by making a vertical line next to the appropriate symbol on the poster. When one type of weather has received four side-by-side tally marks, demonstrate using a diagonal mark to indicate the fifth day that this weather occurs. As the weather is recorded with a tally mark each day, have students recount the total number of tally marks for each type of weather. Students can practice counting by fives and double check by counting by ones.
- Have students take the results from the Pizza Toppings activity and record the data in a picture graph.
- Have students use tally marks to record results for a science experiment.

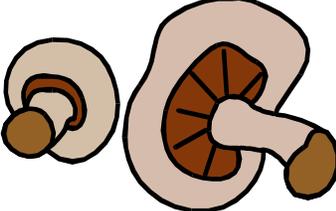
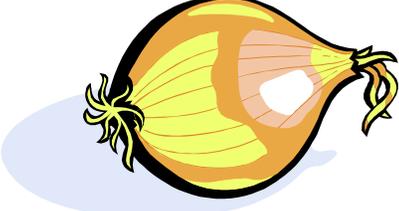
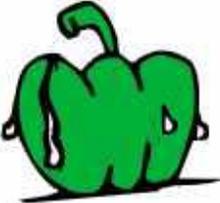
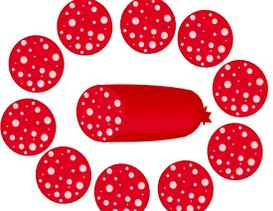
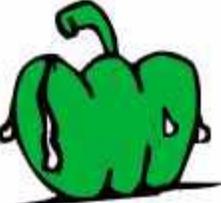
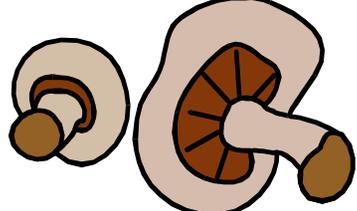
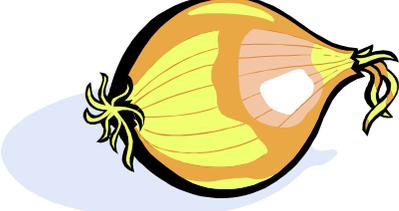
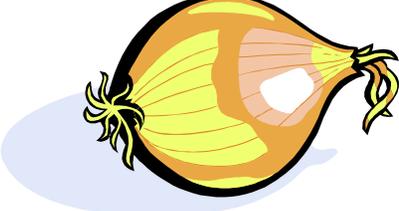
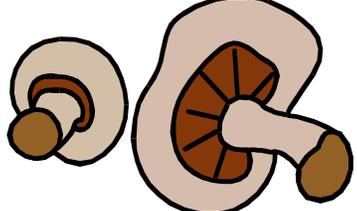
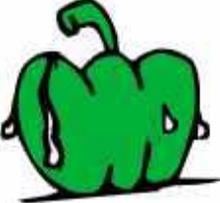
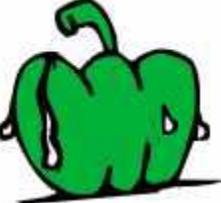
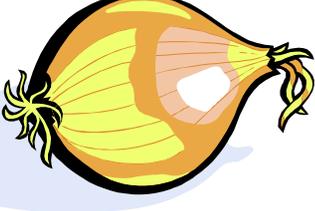
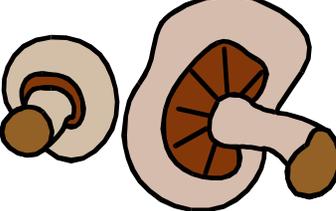
Strategies for Differentiation

- Use a highlighter to provide a guide for students to trace tally marks.
- Use coffee stirrers or ice cream sticks to make physical models of tally marks.

Pizza Toppings

Toppings	Tally Marks	Total
 <p>mushrooms</p>		
 <p>onion</p>		
 <p>pepperoni</p>		
 <p>green pepper</p>		

Pizza Toppings Spinners

 <p>mushrooms</p>	 <p>onion</p>	 <p>pepperoni</p>	 <p>green pepper</p>
 <p>pepperoni</p>	 <p>green pepper</p>	 <p>mushrooms</p>	 <p>onion</p>
 <p>onion</p>	 <p>mushrooms</p>	 <p>pepperoni</p>	 <p>green pepper</p>
 <p>pepperoni</p>	 <p>green pepper</p>	 <p>onion</p>	 <p>mushrooms</p>