



## Instructional Targets

### Math Standards for Measurement and Data

- **Represent and Interpret Data:** Gather and sort data in response to questions. Display data in picture graphs. Answer questions about information in a graph.



## Differentiated Tasks

### Level 3 Students will...

- Ask and answer questions to gather data.
- Sort, display and count data on a graph.

### Level 2 Students will...

- Using picture supports, ask and answer questions to gather data.
- Sort picture data on a graph.

### Level 1 Students will...

- Ask a question to gather data through an active participation response (e.g., voice output device, eye gaze choice board).
- Select a picture to display on a data graph.



## Topic Connection

In this unit's Leveled Book, students read about needs in the past and present. Both characters, Henry and Mateo, have needs, such as food. In this activity, students will gather, display and analyze data related to favorite foods.



## Topic Words



food\*      past      present\*  
need\*      people\*



## Math Words

analyze      data      more\*      same\*  
answer      graph      question\*      sort  
ask\*      less\*      picture graph      survey

\* Power Words



## Lesson at a Glance

	Activity 1	Activity 2	Activity 3
 <b>Instructional Activities</b>	Conduct a Survey	Sort Data	Analyze Data
See how these activities fit into the <b>Suggested Monthly Plan</b> .			
 <b>ULS Materials and Resources</b>	<b>Leveled Book: <i>Needs: Past and Present</i></b> (Lesson 1)  <b>Selection Cards</b>  <b>Picture and Picture/Word Cards</b> pizza hamburgers tacos other	<b>Selection Cards</b> (completed in Activity 1)  <b>Graphing Chart</b>  <b>Picture and Picture/Word Cards and/or Graph Picture Cards</b> pizza hamburgers tacos other	<b>Graphing Chart</b> (completed in Activity 2)  <b>Analysis Questions</b>  <b>Picture and Picture/Word Cards</b> pizza hamburgers tacos other
	<b>Instructional Tools: Math Pack / Shapes</b>  <b>Instructional Guides: Mathematics</b>		
 <b>Additional Materials</b>			



## Instructional Target

### Math Standards for Measurement and Data

- **Represent and Interpret Data:** Gather and sort data in response to questions.



## Instructional Routine



### Introduce

- Read or reread the Leveled Book, **Needs: Past and Present** (Lesson 1). Then introduce this activity by asking a focus question about the different needs of Henry and Mateo. Ask, "What is one thing Henry and Mateo both need?" Discuss students' responses. Remind students that Henry and Mateo both need the same things.
- Discuss the different needs mentioned in the story. Explain that Henry and Mateo both needed or need food to live. Then introduce the survey question: What is your favorite food? Say, "Today, we are going to take a survey to find out what your favorite foods are. Your job is to ask and answer the question: What is your favorite food?"
- Review the learning goals with students: **I will ask the question: "What is your favorite food?"**  
**I will answer the question: "What is your favorite food?"**

### Model

- Display and read a Selection Card. Model using the Selection Card to ask and record an answer to the survey question. For example, say, "I am taking a survey. What is your favorite food—pizza, hamburgers, tacos or other? Your favorite food is pizza. OK, I will mark the box next to pizza."
- Continue modeling by surveying one or two more students.

### Provide Practice

**Have students survey one another or other teachers and classes throughout the school. Incorporate augmentative communication strategies as needed.**

**Level 3:** Have the student ask and answer the survey question independently.

**Level 2:** Have the student ask and answer the survey question using picture supports. Picture/Word Cards are provided for visual support.

**Level 1:** Have the student participate in asking the survey question using his or her active participation response. Have the student participate in answering the survey question by making a selection from 2-3 picture choices (may be errorless).

### Review

- Revisit the learning goal by inviting individual students to share their responses to the survey question.
- Point out that by taking a survey, students have collected data. Explain that the next step is to sort the data.



## Check Understanding ?

**Level 3:** Can the student ask and answer a survey question independently?

**Level 2:** Can the student ask a survey question using picture supports?  
Can the student answer a survey question using picture supports?

**Level 1:** Can the student participate in asking a survey question using his or her active participation mode? How? Can the student answer a survey question by making a selection from 2-3 choices (may be errorless)?



## Instructional Targets

### Math Standards for Measurement and Data

- **Represent and Interpret Data:** Gather and sort data in response to questions. Display data in picture graphs.



## Instructional Routine



or



### Introduce

- Introduce the activity by asking a focus question about the survey students conducted. For example, ask, "Which food was part of our survey—pizza or cake?" Discuss students' responses.
- Display and read the Graphing Chart. Say, "We are going to sort the answers to our survey question and display them on this chart. Your job is to look at the answers on the Selection Cards and put them on the chart."
- Review the learning goal with students: **I will place answers from the Selection Cards on the Graphing Chart.**

### Model

- Display the Graphing Chart and name the foods at the bottom. Point out the numbers along the side of the chart. Explain that the numbers will help students count how many people chose each food.
- Model reading a Selection Card and recording the data on the Graphing Chart. For example, say, "This Selection Card has 'pizza' marked. I am going to place one 'pizza' picture on the chart. 'Pizza' has one vote for a favorite food."
- Continue modeling, recording data from several more Selection Cards.

### Provide Practice

- Level 3:** Have the student read and record data on the chart.
- Level 2:** Have the student use picture supports to read and record data on the chart.
- Level 1:** Have the student use his or her active participation mode to select a picture showing data to be included on the chart. For example, display and read a Selection Card. Use the Picture or Picture/Word Cards to have the student make a selection from 2-3 choices (may be errorless) to show what data should be recorded on the chart.

### Review

- Revisit the learning goal by reviewing the completed chart.
- Point out that students sorted the data they collected and put it on the picture graph. Explain that the next step is to use the graph to answer questions.



## Check Understanding ?



**Level 3:** Can the student organize and display data on the graph?



**Level 2:** Can the student organize and display data on the graph with support?



**Level 1:** Can the student actively participate in selecting pictures as part of a data-gathering process? How?



## Instructional Target

### Math Standards for Measurement and Data

- **Represent and Interpret Data:** Answer questions about information in a graph.



## Instructional Routine



or



### Introduce

- Introduce the activity with a focus question about the Graphing Chart from Activity 2. For example, display the chart and ask, "What is our chart about—favorite seasons or favorite foods?" Discuss students' responses.
- Explain that now that the data has been sorted, students can use the picture graph to determine which food was the favorite for most of the people surveyed. Say, "We are going to review our picture graph. Your job is to use the graph to answer questions."
- Review the learning goal with students: **I will use a picture graph to answer questions.**

### Model

- Display the Analysis Questions. Model reading the questions and using the graph to find the answers. For example, say, "The first question is 'Which had the most?' I will look at the graph to see which food had the most votes. I can count the pictures or look at the number for each food. I will mark the food with the most pictures."

### Provide Practice

- Level 3:** Have the student use the Graphing Chart to answer the remaining questions.
- Level 2:** Read each question. Have the student use the Graphing Chart to answer the questions. Picture supports are provided.
- Level 1:** Have the student answer the questions by using his or her active participation mode to make a selection from 2-3 picture choices (may be errorless).

### Review

- Revisit the learning goal by reviewing with students the completed analysis questions.
- Discuss which group had more or less than the other or whether the groups were the same.



## Check Understanding ?



**Level 3:** Can the student answer questions about information on a graph?



**Level 2:** Can the student answer questions about information on a graph with support?



**Level 1:** Can the student actively participate in answering questions about information on a graph? How?

# What is your favorite food?

10				
9				
8				
7				
6				
5				
4				
3				
2				
1				

pizza



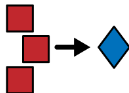
hamburgers



tacos

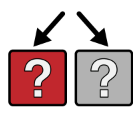
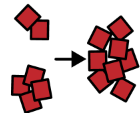


other




Name:


Which had the most ?


pizza



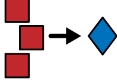
hamburgers



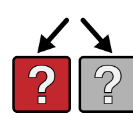
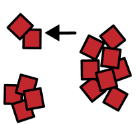
tacos




other




Which had the least ?


pizza



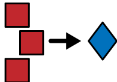
hamburgers



tacos




other




Were any the same ?



yes



no



What was the highest number ?



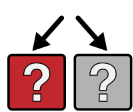


1

2


3

4


Which was your favorite ?


pizza



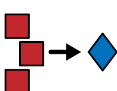
hamburgers



tacos



other





## What is your favorite food?



pizza



tacos



hamburgers



other

## What is your favorite food?



pizza



tacos



hamburgers



other

## What is your favorite food?



pizza



tacos



hamburgers



other

## What is your favorite food?



pizza



tacos



hamburgers



other

## What is your favorite food?



pizza



tacos



hamburgers



other

## What is your favorite food?



pizza



tacos



hamburgers

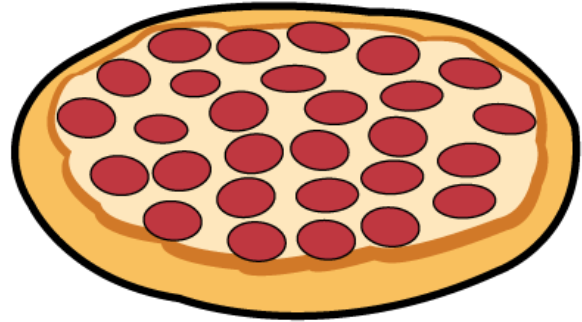
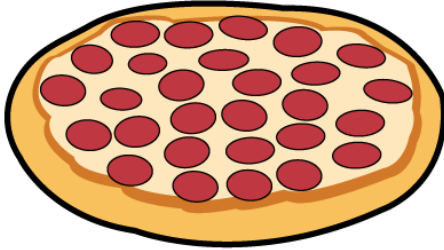


other

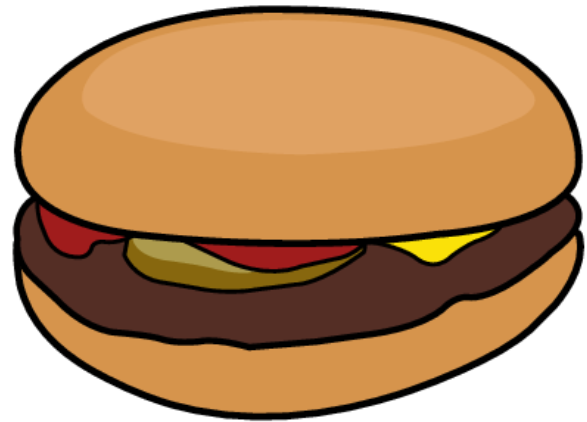
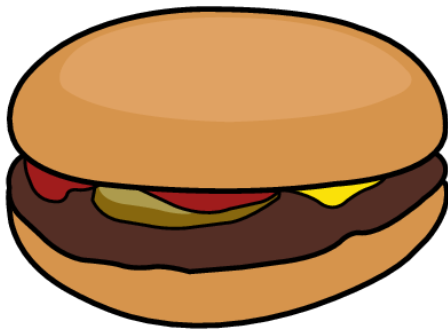




pizza



hamburgers



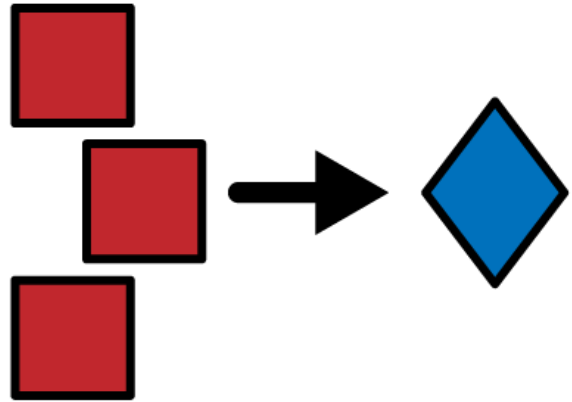
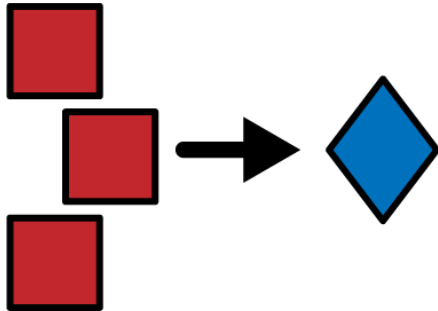
tacos





For hands-on instruction, print, cut out and laminate.

other





For hands-on instruction, print, cut out and laminate.

