

# Lesson 120

## *choosing a survey question and choices representing data using a graph*

### *lesson preparation*

#### *materials*

Written Assessment #23

Oral Assessment #12

1 large piece of construction paper per child

scrap paper

markers or crayons

1 envelope per pair of children

Masters 2-120A and 2-120B

Fact Sheet M 13.0

#### *in the morning*

- Write the following pattern on a paper strip and post it on the bulletin board:

Z, Σ, N, N, Z, Σ, —, —, —, —, —, —
------------------------------------

*Answer:* Z, Σ, N, N, Z, Σ, N, N, Z, Σ, N, N

- Write \$1.82 on the money tag. Provide a cup of 10 quarters, a cup of 10 dimes, a cup of 10 nickels, and a cup of 20 pennies.
- Allow time prior to The Meeting for the Student of the Day to fill in the date tag, put coins in the coin cup to match the amount on the tag, read the temperature to the nearest two degrees, and record it on scrap paper. Assist the Student of the Day, if necessary.
- Collect homework from the previous day. Correct and review errors with the children individually.

## THE MEETING

*“Today \_\_\_\_\_ is Student of the Day.”*

### *calendar*

- Ask the children to spell the name of the month as the Student of the Day writes the date on the bulletin board date strip.
- Ask the children to identify the number of days in 1 week, 2 weeks, and 3 weeks.

- Ask all of the children the following two or three times a week:  
date \_\_\_\_ days ago, date \_\_\_\_ days from now  
day of the week \_\_\_\_ days ago, day of the week \_\_\_\_ days from now  
\_\_\_\_th month, month before, month after

### ***patterning***

- Ask all the children to do the following:  
identify the pattern (repeating or continuing)  
identify the shapes to complete the pattern  
read the pattern together

### ***counting***

- Count by 4's to 40 and backward from 40 by 4's.
- Count by 25's to 300 and backward from 300 by 25's.
- Count by 3's to 30 and backward from 30 by 3's.
- Do the following once or twice a week:

count by 10's to 400 and backward from 400 by 10's

count by 5's to 100 and backward from 50 by 5's

say the even numbers to 100 and backward from 50

say the odd numbers to 49 and backward from 49

The Student of the Day chooses a number on the hundred number chart. Randomly ask children to add or subtract ten or one. Repeat 6–10 times. Ask children to give directions for returning to the starting number.

### ***weather graph***

- Ask the Student of the Day to announce today's temperature.
- The Student of the Day puts a dot on the line above the date to show the temperature to the nearest two degrees.
- Count by 10's and 2's to check the temperature on the graph.
- The Student of the Day connects the dot for yesterday's temperature to the dot for today's temperature.
- Ask all children to compare the temperatures.

### ***money***

- Hold up each coin as the children count the amount of money in the coin cup.
- Ask all the children for other ways to show this amount of money. Hold up each coin as the children count to check the amount.

**clock**

- Ask the Student of the Day to set the clock to show the time to a five-minute interval.
- The Student of the Day shows the clock to the children and asks the following:
  - “*It’s morning (afternoon). What time is it?*”
  - time one hour ago
  - time one hour from now
  - how to write the digital time
- The Student of the Day writes the digital time on a tag and posts it on the bulletin board.

**lunch/attendance graph**

- The Student of the Day gives the attendance and the lunch count report.
- The Student of the Day fills in this information on the bulletin board chart.

**graph questions**

- The Student of the Day asks 2–3 questions about any of the classroom graphs.

**chart story**

- Continue the chart story. Include the Student of the Day’s birthday, the number of the day, the time for a special activity during the day, and the number of days until a special event or holiday occurs.

**fact practice**

- Ask the Student of the Day to choose three fact family numbers and write them on the chalkboard.
- Allow the Student of the Day to write the four fact family number sentences without help or to ask other children to participate in naming the number sentences.
- Say the fact family rhyme (rap) together several times.

**ASSESSMENT**

---

- All of the questions on the assessment are based on concepts and skills presented at least five lessons ago. It is expected that all children will master at least 80% of the concepts on the assessment. If a child is not performing at an 80% mastery level, plan intervention and extra help for the child immediately. If all of the children are having difficulty with a specific concept, reteach the concept the following day. There is an extra day each week built into the program for this purpose.

## Written Assessment

*“Today I would like to see what you remember from what we have been practicing.”*

- Pass out **Written Assessment #23**.
- Read the directions for each example. Allow time for all the children to complete each example before continuing to the next.
- When children are finished, collect the papers.
- Correct the papers, noting children’s mistakes. It is suggested that you return these papers to the children and review their errors with them individually.

## Oral Assessment

- Interview children individually. This can occur while the children are working on the class activity or during independent working time at another time of day.

## CLASS ACTIVITY

---

### ***Choosing a Survey Question and Choices Representing Data Using a Graph***

- Note: This project may be completed over a 1–2 week period.

*“Two weeks ago (last week) we made a graph to show our favorite ice cream flavors.”*

*“How did we do that?”*

- Ask the children to restate the steps used.

*“Today you will learn how to ask your own question and how to make a graph to show the answers.”*

*“Each of you will work with a partner.”*

*“Together you will choose a question to ask.”*

*“Then you will make up four choices for your question.”*

*“When you have made up your question and the choices, you will ask the children in another classroom in the school to answer the question.”*

*“Then you will make a graph to show their answers.”*

*“What kinds of questions could we ask the other children in the school?”*

- List the possible questions on the chalkboard. Encourage children to think of as many questions as possible.
- Possible topics for graphs might include the following:
  - favorite vacation spot
  - favorite animal
  - favorite color

favorite flower  
 favorite season  
 favorite food  
 favorite cookie

- Pair children.

***“Each group will choose a question to ask.”***

***“Make up four choices for answers.”***

***“Try to make the choices something the children might like.”***

***“For example, if my question was ‘What is your favorite food?’, why would liver, beets, spinach, and cookies not be good choices?” all the children would probably choose cookies***

- Pass out **Master 2-120A**.

***“Write your question and the choices on the top part of this paper.”***

- Review the questions and choices with each pair of children.
- Assign each pair of children a grade level.

***“Now one partner will write the question on a large piece of construction paper.”***

***“The other partner will write the choices on another large piece of construction paper.”***

***“You will need 30 small pieces of paper so that each child can vote for their choice.”***

- Give the children in each group two pieces of construction paper, markers or crayons, paper to make the tags, and an envelope to put the tags in.

***“Now you will need to ask the teacher if you may survey his or her class.”***

***“If the teacher says yes, make an appointment for a convenient time to survey the class.”***

***“Write the date and time of your appointment on a piece of paper.”***

- When the children return, list the dates and times on the chalkboard.

***“When you survey the class, read the question and the choices to the children.”***

***“Pass out a tag to each child.”***

***“Ask the children to write their choice on the tag.”***

***“Collect the tags and put them in the envelope.”***

***“Tell the class that when you finish the graph, you will come back to the class and share the results with them.”***

***“When you finish, thank the teacher and the class for helping you with your project.”***

- When the children return with the votes, assist them in tallying the results.  
***“Tally the answers to your question and make a graph to show what you found.”***
- Give each child a copy of **Master 2-120B**.  
***“If more than seven children chose the same answer, you will need to number your graph by 2’s.”***
- If necessary, assist children as they number their graph by 2’s.  
***“Write the title at the top of the graph.”***  
***“Write the choices below each column.”***  
***“Now use a different color crayon to show how many children chose each choice.”***  
***“When you finish, write your observations about the graph on a piece of writing paper.”***  
***“Observations are all the things you know about the graph.”***  
***“Work with your partner to write as many observations as you can.”***  
***“We will tape this paper to the bottom of the graph.”***  
***“We will share our graphs and observations with our class and with the class we surveyed.”***
- Provide time for each group to describe their graph to the class.

## CLASS PRACTICE

---

### ***number fact practice***

- Write the first row of facts on the chalkboard and review the answers with the children.
- Pass out **Fact Sheet M 13.0**.
- Time the children for one minute.
- Read the examples and answers slowly.
- Collect the fact sheets for recording. Return the sheets to the children after recording.  
***“Who would like to share something you learned in math today?”***
- Provide 2–3 minutes for sharing. Allow as many children as possible to respond. Provide appropriate feedback and reinforcement.

Name \_\_\_\_\_ **MASTER 2-120A**  
*Math 2*

Question \_\_\_\_\_  
\_\_\_\_\_

Choices 1) \_\_\_\_\_  
2) \_\_\_\_\_  
3) \_\_\_\_\_  
4) \_\_\_\_\_

---

The title of the graph will be:  
\_\_\_\_\_

Choices	Tally of votes
1) _____	[ ]
2) _____	[ ]
3) _____	[ ]
4) _____	[ ]

If any choice receives more than 7 votes, number your graph by 2's

2-120Aa

Name \_\_\_\_\_ **MASTER 2-120B**  
*Math 2*



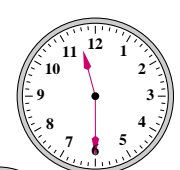
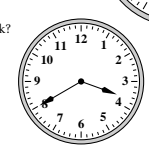
Title \_\_\_\_\_


Class surveyed: Grade \_\_\_\_\_ Teacher \_\_\_\_\_

2-120Ba

Name \_\_\_\_\_ **ASSESSMENT 23**  
**LESSON 120**  
*Math 2*

Date \_\_\_\_\_

- Joshua had 42 baseball cards. He gave 15 cards to Dana. How many cards does he have now?  
Number sentence  $42 - 15 = 27 \text{ cards}$  Answer  $27 \text{ cards}$
- Measure these line segments using centimeters.  
  
 Draw an 8 cm line segment.  

- Show half past eleven on the clocks.  
  
11:30  
 What time is shown on this clock?  
  
3:40
- Use the correct comparison symbol (>, <, or =).  
 $6 + 3$  <  $2 \times 5$       $16 - 7$  <  $10$       $27 + 23$  =  $5 \times 10$
- Find the answers.  
 $45 + 87 = \underline{132}$       $\begin{array}{r} 48 \\ -17 \\ \hline 31 \end{array}$       $\begin{array}{r} 51 \\ -16 \\ \hline 35 \end{array}$       $\begin{array}{r} 59 \\ 37 \\ +93 \\ \hline 189 \end{array}$

2-120Aa

