

Lesson 46

writing the number 42
ordering containers by volume
identifying one-cup liquid measure

lesson preparation

materials

1-cup liquid measuring cup (preferably plastic)
 5 empty containers
 basin, funnel, and newspaper
 water (approximately 3 gallons)
 food coloring
 masking tape
 marker
 linking cubes (20 each of red, green, blue, yellow, and black)
 large fact cards (subtracting one facts)
 Fact Sheet S 2.0

the night before

- Collect five empty plastic containers. The containers should be of clearly different sizes. If possible, include liter, quart, half gallon, and pint or half pint containers. Soft drink, milk, shampoo, ketchup, syrup, or salad dressing bottles can be used. You may want to ask children to bring containers from home. Prior to the lesson, use a piece of tape and a marker to label the five containers A, B, C, D, and E.
- Highlight the 1-cup line on the measuring cup with tape or a marker.

in the morning

- Use three 1-gallon bottles of water if water is not easily accessible in the classroom. Food coloring in the water makes the water level in the containers easier to see. Use a basin or place old newspapers on the floor or table to catch spills. A funnel can also be used to make pouring easier.
- Write the following number pattern on a paper strip and post it on the bulletin board:

16, 17, 18, —, —, —

Answer: 16, 17, 18, 19, 20, 21

- Put **5 dimes** in the coin cup.
- Collect homework from the previous day. Correct and review errors with the children individually.

THE MEETING

“Today _____ is the Student of the Day.”

calendar

- Ask the children to identify the following:
 - year
 - month
 - shapes on the calendar
 - shape pattern for the month
- Ask the Student of the Day to do the following:
 - write the date on the date tag
- Ask the children to do the following:
 - identify today’s day of the week
 - identify the days of the week
 - read the days of the week together

“How many days of the week are there?”

“Let’s count them.”

“What days of the week do we usually come to school?”

- Ask the Student of the Day to do the following:
 - write the full date on the date strip as the children spell the name of the month

counting

- Count from 1 to 100 using the hundred number chart.
- Count backward from 20 to 1.
 - “Let’s use our counting strip to help us count by 10’s to 100.”*
- Point to each number on the counting strip as the children count together.
- Add another number to the number line for the days we have come to school.
- Count the tags to check.

number pattern

- Ask the children to identify the missing numbers.
 - “The Student of the Day will fill in the missing numbers in our pattern.”*
 - “Let’s read our number pattern together.”*

weather graph

- The Student of the Day reports and graphs the weather.

- Discuss the placement of the tag.
- Ask all children questions about the graph.

lunch/attendance graph

- The Student of the Day reports the information from the lunch and attendance graph.

clock

- The Student of the Day sets the morning/afternoon/evening/night clock.

coin cup

- The Student of the Day holds up each coin as the children in the class count the money in the coin cup.
- The Student of the Day records the amount of money in the coin cup on a tag and posts it on the bulletin board.

right/left

- Continue to practice left and right once a week. Practice more often, if necessary.

THE LESSON

Writing the Number 42

“The last number we practiced writing was the number 41.”

“What number do you think we will learn how to write today?”

“Does anyone know how to write the number 42?”

- Ask a child to write the number on the chalkboard.

“What digits do you see in the number 42?”

“How would you tell someone how to write the number 42?”

“Which digit is on the left?”

“Which digit is on the right?”

Ordering Containers by Volume Identifying One-Cup Liquid Measure

- Display the five containers so that all children can see them easily.

“Today you will learn how to order containers by volume.”

“I have five containers.”

“Look at them carefully.”

“We are going to fill each container with water.”

“The smallest container is the one that will hold the least amount of water.”

“Which container do you think is the smallest?”

“Why?”

- Encourage the children to discuss why they think a certain container will hold the least.
- Put that container on the far left.

“Which container do you think is the smallest now?”

- Put that container next to the one judged to have the least volume.
- Repeat with the other containers.
- Hold up a one-cup measuring cup.

“We will use a measuring cup to find how many cups of water each container will hold.”

“Each time we fill this cup, we have one cup of water.”

- Point to the highlighted one-cup line on the measuring cup.

“We will fill the cup to this line for exactly one cup of water.”

- Hold up the one-cup measuring cup and the container judged by the children to be the smallest.

“Let’s estimate how many cups of water this container will hold.”

“How many cups of water do you think it will take to fill this container?”

- Record on the chalkboard:

Container	Estimate	Actual
A		
B		
C		
D		
E		

- Record the children’s estimate on the chalkboard chart.

“Let’s try it to see.”

“We will need to keep track of how many cups of water we use.”

“Who would like to be my assistant?”

- Ask the Student of the Day or another child to be the assistant. Give the assistant 20 red, 20 blue, 20 green, 20 yellow, and 20 black linking cubes.

“Every time I pour a cup of water into this container, (child’s name) will take one (color) linking cube.”

“We will use a different color linking cube for each container.”

“The tower of (color) linking cubes will show how many cups of water we used to fill this container.”

“Count with me as I pour each cup of water into this container.”

- Pour the water into the measuring cup and from the measuring cup into the first container. Estimate to the nearest cup. For example, if a little more than four cups of water was used, write “4 cups + a little.” If four and a half cups were used, write “4 cups + a half cup.” If a little less than five cups was used, write “5 cups – a little.”

“How many cups of water did we use to fill this container?”

- Record the amount on the chalkboard chart. Stand the tower of linking cubes next to the container.
- Point to the next container in the row.

“Do you think this container will hold more or less water?”

“How many cups of water do you think this container will hold?”

- Record the estimate on the chalkboard.

“Every time I pour a cup of water into the container, (child’s name) will take one (color) linking cube.”

“The tower of (color) linking cubes will show how many cups of water we used to fill this container.”

“Count with me as I pour each cup of water into this container.”

“How many cups of water did we use to fill this container?”

- Record the amount on the chalkboard chart. Stand the tower of linking cubes next to the container.
- Repeat with the remaining containers, using a different color linking cube for each.

“Which container has the smallest volume?”

“How do you know?”

“Which container has the greatest volume?”

“How do you know?”

“Did we put the containers in order from smallest to largest?”

- Adjust the order of the containers, if necessary.

“Let’s look at our towers.”

- Stand the towers next to each other.

“What do you notice?” ***the towers go up like steps***

Optional: “The containers will be in the math center for you to use and fill with water.” Put the containers, the plastic measuring cup, and the basin in an area near a sink. Additional plastic containers can be added for the children to fill and compare.

CLASS PRACTICE

“Let’s review our number facts called subtracting one facts.”

- Use the large subtracting one fact cards.
- Hold up one fact card at a time as the children say the fact and the answer in unison.
- Repeat several times.

“Now you will have a chance to see how many subtracting one facts you remember.”

- Pass out **Fact Sheet S 2.0**.
- Provide linking cubes as counters for children who are not able to recall the facts.
- Review the procedure for completing the fact sheet. (See Lesson 39.)
- Review the procedure for correcting the fact sheet, if necessary.
- Read the examples and the answers slowly.
- Collect the fact sheets and record the facts missed by each child. Allow the children to take the completed fact sheets home.

WRITTEN PRACTICE

- Pass out **Worksheet 46A/46B**.
- Read the directions for each problem on Side A.
- Circulate around the room and assist children as they complete the paper.
- Read the directions for each problem on Side B.
- Remind children to return the paper tomorrow.

“Who would like to share something you learned today in math?”


- Provide 2–3 minutes for sharing. Allow as many children as possible to respond.

Name _____ **LESSON 46A**
Math 1
 Date _____
 Day of the Week _____

1. Write the number forty-two.

42 *42*


2. Jason used 3 cups of water to fill one bottle. He used 2 cups of water to fill another bottle. Draw a picture and write a number sentence to show how many cups of water he used.




Number sentence $3 + 2 = 5$

How many cups of water did he use? **5** cups

3. Circle the one that is different.



4. How many dimes do you see? **6**



How much money is this? **60c**

5. Write the letter **G** in the fourth square.
 Write the letter **O** in the second square.
 Write the letter **L** in the first square.
 Write the letter **N** in the third square.

L **O** **N** **G**


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Name _____ **LESSON 46B**
Math 1

1. Circle the number in the box that is between 5 and 8 when you count by 1's.

5 8 9 2 7


2. Frank used 5 cups of water to fill one bottle. He used 3 cups of water to fill another bottle. Draw a picture and write a number sentence to show how many cups of water he used.




Number sentence $5 + 3 = 8$

How many cups of water did he use? **8** cups

3. Circle the one that is different.



4. How many dimes do you see? **4**



How much money is this? **40c**

5. Write the letter **H** in the second square.
 Write the letter **O** in the middle square.
 Write the letter **T** in the last square.
 Write the letter **R** in the fourth square.
 Write the letter **S** in the first square.

S **H** **O** **R** **T**

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