

## PICTURING MULTIPLICATION

In this lesson, students explore representing multiplication problems with Base Ten Blocks. They connect the concrete to the abstract by recording with paper Base Ten Blocks. Use to build a strong mental image as students are learning the multiplication algorithm.

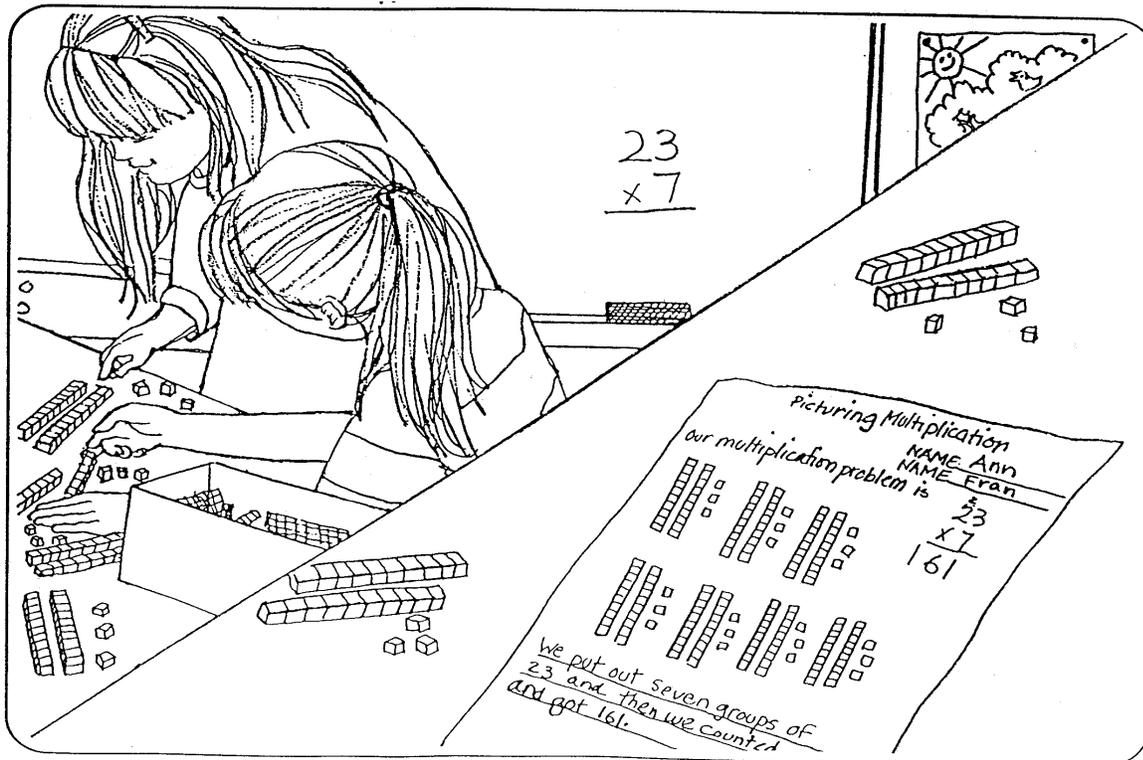
### Classroom Organization

Eight groups of four sharing materials  
Working together

### Materials

Each group of four students will need these materials:

- Base Ten Blocks: 1 hundreds-block, 18 tens-blocks, 37 ones-blocks
- 4 copies of Picturing Multiplication Recording Sheet, page A.14-a
- 4 copies of each page of Paper Base Ten Blocks, pages A.15-16, duplicated on colored paper
- Scissors and paste



[Source: [Connections-Linking Manipulatives to Mathematics-Grade 3](#), Creative Publications, Inc.]

**A.12**

## Introducing the Problem

Today you are going to work together and use your blocks to make pictures of multiplication problems. What do you think a picture of a multiplication problem looks like?

$$\begin{array}{r} 23 \\ \times 7 \\ \hline \end{array}$$

## Exploring with Base Ten Blocks

1. Show this problem to the students
2. Tell them to work in their groups to make a picture of the problem using Base Ten Blocks. They should use those blocks to find the solution to the problem.
3. Discuss the different ways the groups used the blocks to make a picture of the multiplication problem and find its solution.

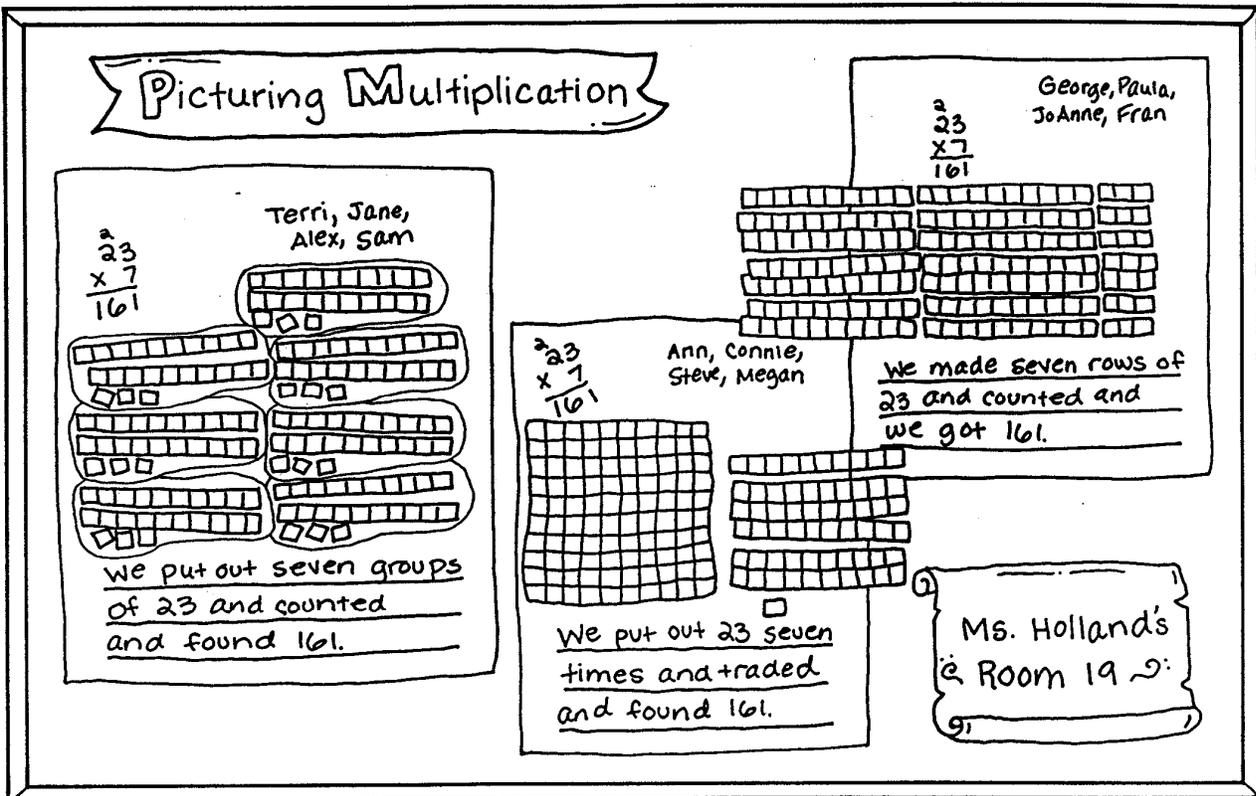
## Recording the Connection

1. Have the students show a picture of the multiplication problem by pasting paper Base Ten Blocks onto a copy of the recording sheet. Have the students solve the problem with numbers and write the answer.
2. Students should then write a few sentences at the bottom of the recording sheet, telling about how their group used the blocks to show a picture of the problem.

[Source: [Connections-Linking Manipulatives to Mathematics-Grade 3](#), Creative Publications, Inc.]

## Reporting and Displaying

Display the recording sheets to show different ways of picturing the multiplication problem. Discuss and compare the different procedures students used.



## Solutions and Suggestions

Encourage students to make pictures of other multiplication problems for display. Use Base Ten Blocks and record with paper blocks.

For more activity ideas see *Understanding Place Value: Multiplication and Division*, Creative Publications, Catalog Number 10966; and *Hands On Base Ten Blocks*, Creative Publications, Catalog Number 30159.

[Source: [Connections-Linking Manipulatives to Mathematics-Grade 3](#), Creative Publications, Inc.]

# Picturing Multiplication

Names \_\_\_\_\_  
\_\_\_\_\_

$$\begin{array}{r} 23 \\ \times 7 \\ \hline \end{array}$$

---

---

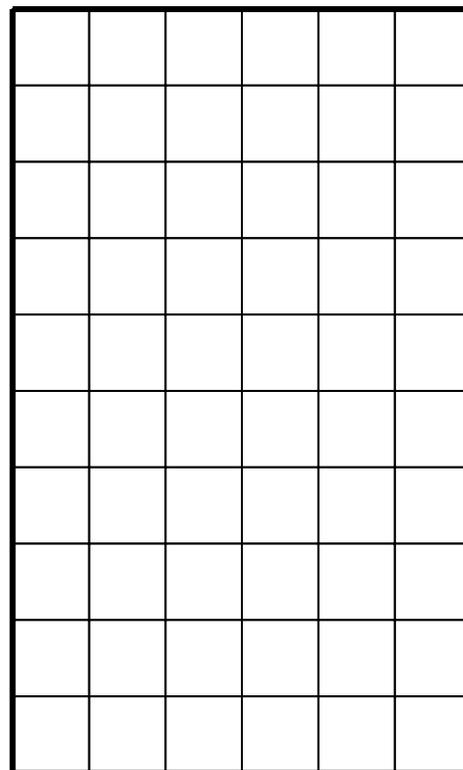
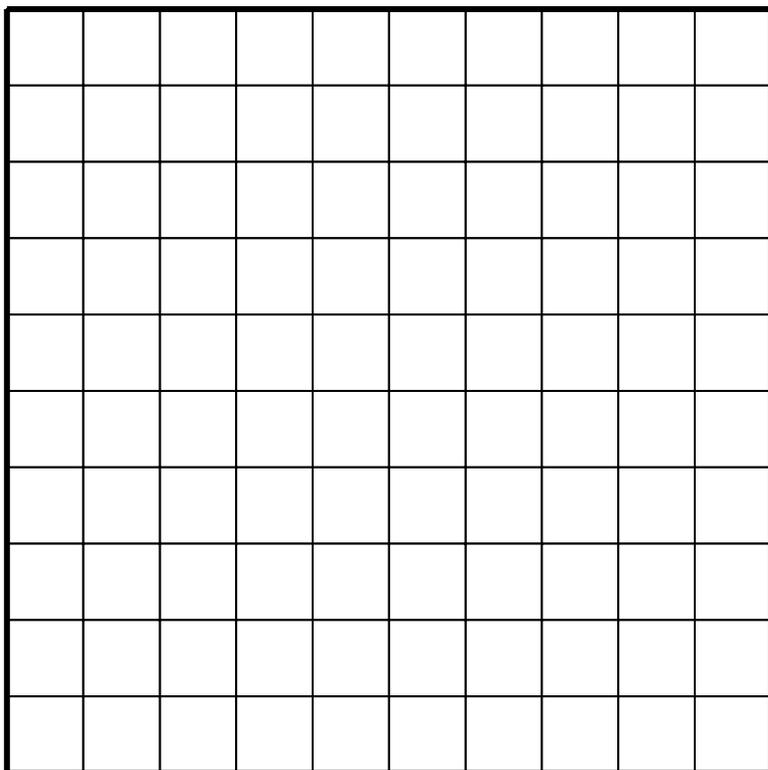
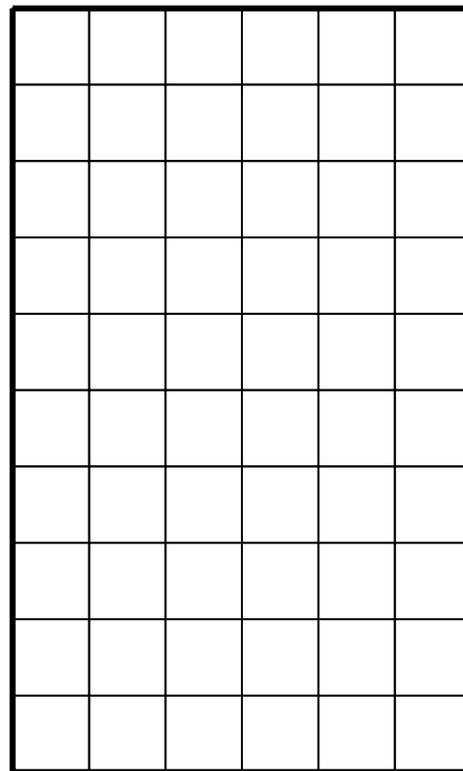
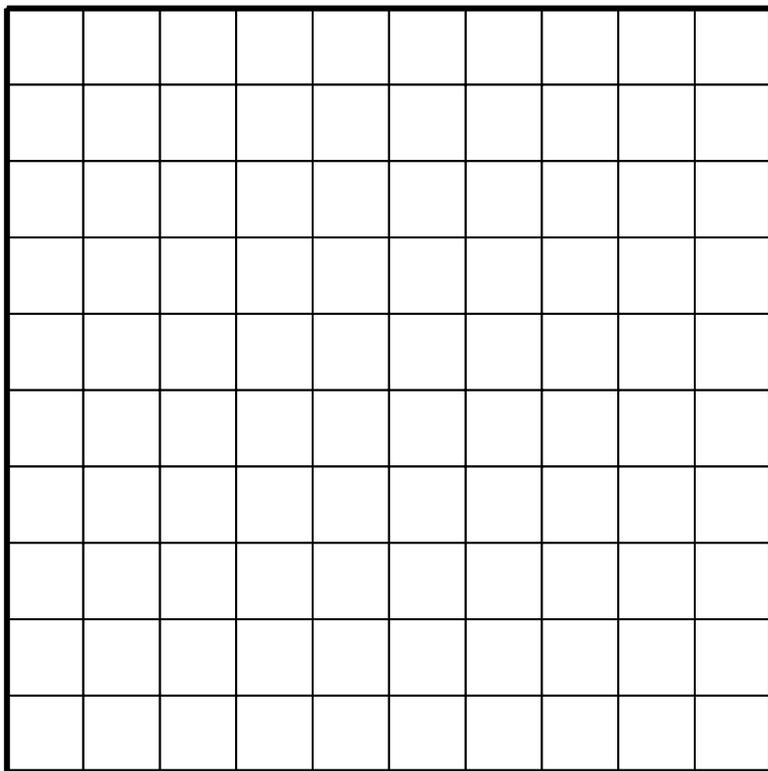
---

---

[Source: Connections-Linking Manipulatives to Mathematics-Grade 3, Creative Publications, Inc.]

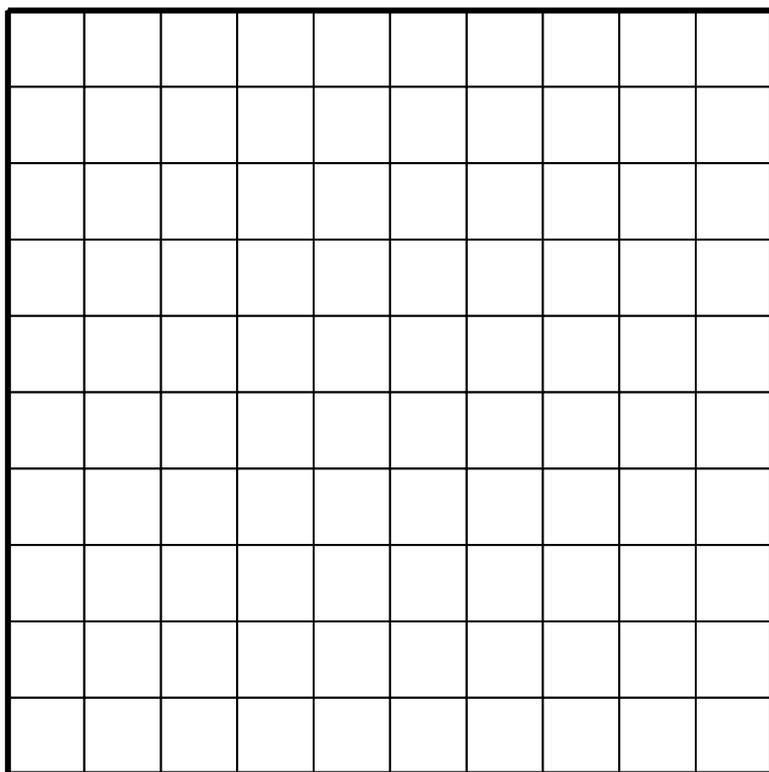
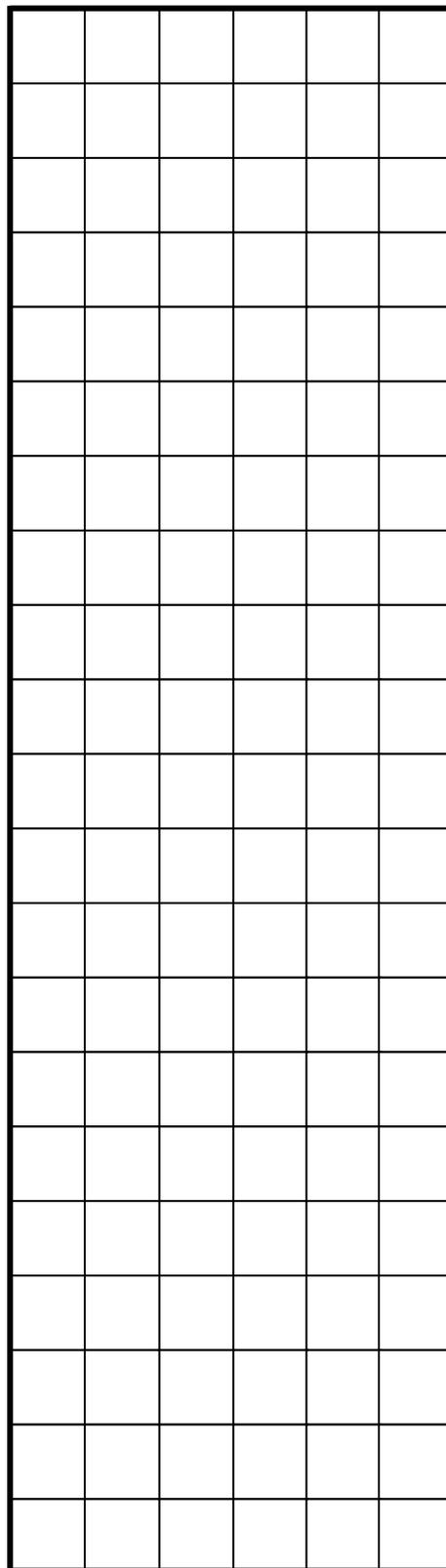
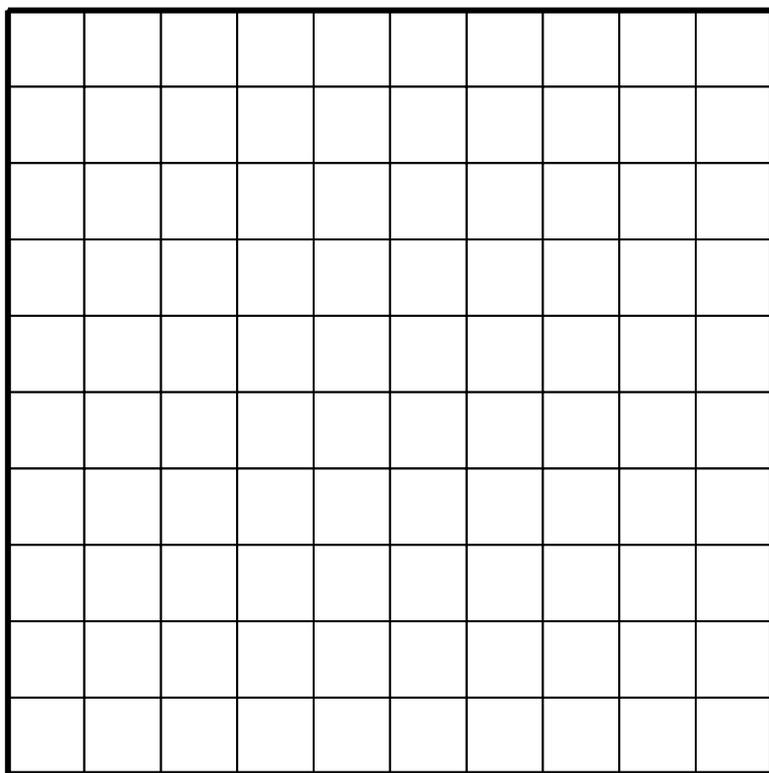
**A.14-a**

## Paper Base Ten Blocks



[Source: [Connections-Linking Manipulatives to Mathematics-Grade 3](#), Creative Publications, Inc.]

## Paper Base Ten Blocks



[Source: [Connections-Linking Manipulatives to Mathematics-Grade 3](#), Creative Publications, Inc.]