

ACTIVITY 14

NUMBER ROCKETS

Objective

Students identify numerals and the number each numeral represents.

Standards

Mathematics, Language Arts

Materials

- 11 large rockets (Figure 6, page 78), colored, with the numerals 0 to 10
- 11 large rockets (figure 6, page 78), colored, with dot stickers representing numbers, 0 to 10
- 55 colored dot stickers
- Paper
- Markers
- Pocket chart

Educator Information

- Copy large rockets on index-weight paper, if it is available. Color the 11 large rockets. Write one numeral, 0 to 10, on each rocket.
- Copy a second set of 11 rockets on index-weight paper, if it is available. On these 11 rockets, place dots to represent numbers 0 to 10. For example, on one rocket, place three

dots to represent the numeral 3. On one rocket, place no dots to represent the number 0. If stickers are not available, draw dots to represent the numerals 0 to 10.

- Laminate rockets for future use.
- Decide on the area in the classroom to place the rockets in this activity.
- Read the activity and be prepared to share it with students.
- This activity may take two class periods to complete.
- Students may need to review this activity for several days.

Procedure

First Class Period:

1. Introduce the rockets with numerals to the students. Place the rockets in a pocket chart, the chalkboard tray, or on the floor. Model sequencing in correct order from left to right.
2. Introduce the second set of rockets with dots. Tell students that these dots represent a number. Demonstrate to the class how to match the rockets with numerals to the rockets with the appropriate number of dots. Display the matched rockets in a pocket chart, the chalkboard tray, or on the floor.



3. As a class activity, ask students to correctly match the rockets. Allow students the opportunity for independent practice.
4. Encourage students to place the rockets in numerical order.

Second Class Period:

1. Review the activity with students. Allow them to practice matching rockets with dots and rockets with numerals.
2. Have students generate other variations of this game. For example, students play a memory game. Place all the rockets face down on the floor or table. Students try to match numerals with the correct number of dots. Have students select two rockets at a time. When two rockets match, remove them from play. Play continues until all rockets match.
3. Use tally marks to record the number of turns needed to match all the rockets and remove them from play. Count the tally marks by 5's. Play the game several times to see if the number of turns changes. Use comparison words, such as *more than* and *less than*, to describe the different results.

Assessment

- Observe students as they match the rockets with numerals to the rockets with dots.

Enrichment

- For a more challenging activity, use numerals 0 to 20 on rockets. Make a second set of 20 rockets with the appropriate number of dots.
- To make the memory game more interesting, before playing, suggest that students predict the number of turns it will take to match all the rockets. Write down the prediction. Students can compare their prediction to the actual number of turns.
- Use a third set of rockets. On this set, write the number words from *zero* to *ten*. Students use these rockets with words to match with

rockets with the correct numerals or with the correct number of dots.

- Introduce or review the concept of and the symbol (=) for *equal*. Explain to students that matching the dots on the rockets with the numerals on the rockets shows that they are equal or the same. For example, the numeral 5 on a rocket matches or is equal to ●●●●●. Write the equal symbol on a card. Place the stack of rockets with numerals face down on the table. Place the stack of rockets with dots face down on the other side. Place the card with the equal symbol between the two stacks. A student turns over the top rocket from each stack. The student looks at the two rockets and the equal symbol and decides if the rockets are equal. Encourage students to view the rockets and the cards as a mathematical statement. For example, 6 equals ●●●●●● or $6 = 6$. Introduce or review the terms, *true* and *false*. Have students read the statement and state whether it is true or false. Remind them that some statements will be true and others false. If it is true, the student removes the cards from play. If it is false, place rockets face down in discard piles next to the original stacks. Play continues reusing the rockets until all rockets match. If appropriate, introduce the concept of, and symbol for, *not equal* (\neq). Students can predict the number of turns needed to complete the game. Students track the number of turns by using tally marks. Play the game several times and then compare the number of turns. Vary this activity using rockets with number words.
- Use the small rocket drawings (Figure 7, page 79) to create similar activities for student independent practice.
- Select a variety of books designed to help students learn to count. Share the books with the class. Have students practice counting using the rockets in this lesson.



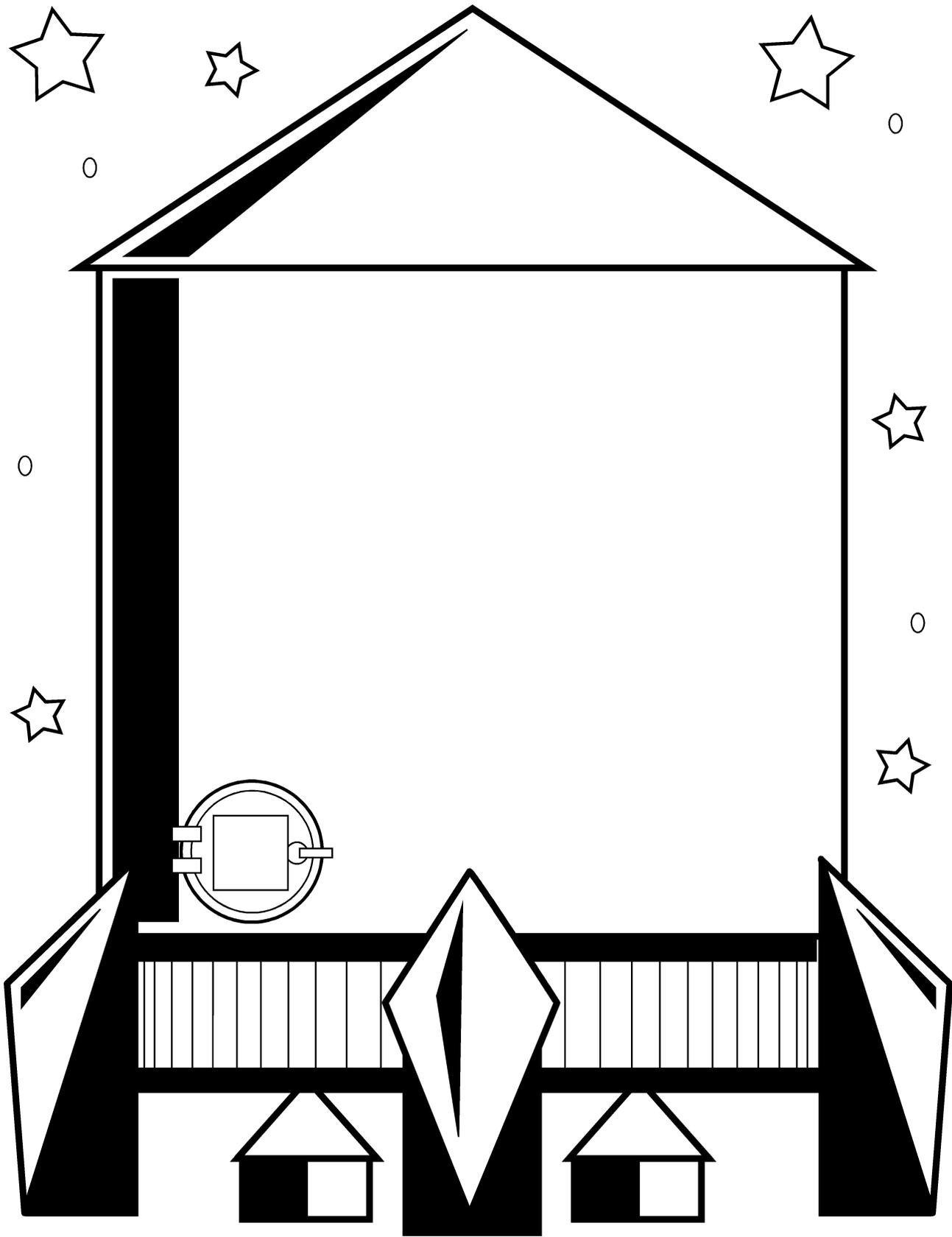


Figure 6. Large Rocket Drawing

