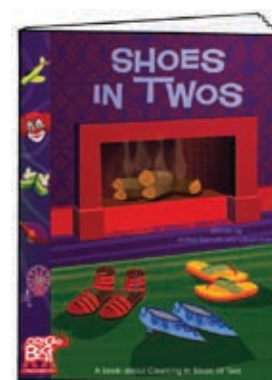


Shoes in Twos

A book about counting in steps of two







Aim

Multiplication can be represented using four different models: the set model, the area model, the linear model, and the combination model. *Shoes in Twos* introduces the set model through counting in steps of two; the initial skill required to determine the product when multiplying by two.

These whole-class activities provide students with the opportunity to:

- listen to a story about counting in steps of two
- use materials to act out counting in steps of two situations
- act out counting in steps of two using the *Teaching Tool*
- use the *Teaching Tool* to complete number sentences
- write a story about counting in steps of two

Activities

1. Listening to the story
2. Counting in steps of two
3. Acting out the story
4. Using materials to act out the story
5. Using the teaching tool to act out the story 
6. Using the teaching tool to make groups of two 
7. Making and identifying groups of two
8. Developing language
9. Making groups of two to match verbal descriptors
10. Writing a story about groups of two
11. Using the teaching tool to write matching number sentences 
12. Using the teaching tool to find the missing multiplier 

1. Listening to the story

Resources

- *Shoes in Twos*

Activity

Show students the cover of *Shoes in Twos* and read the title aloud. Encourage the students to predict what they think the story might be about. Slowly read the story. Then ask, **What happened in the story? What did you see in each picture?** Encourage students to explain that there are different types of shoes but all the shoes come in groups of two. Read pages 2–3 of the story and have the students count in steps of two as you point to each pair of shoes. Say, **There are two pairs of shoes. There are four shoes in total.** Repeat for each double-page spread of *Shoes in Twos*.

2. Counting in steps of two

Resources

- Soft balls

Preparation

Arrange the students in groups of approximately ten students. Each group will need a ball.

Activity

Have each group sit to form a large circle. Say, **We are going to count in steps of two.** Demonstrate the activity with one group first. Guide one student from the group to say “Two” and roll the ball to another student in their circle. The student who receives the ball must then say “Four” before rolling the ball to another student. The group continue until they reach twenty. Give each group the opportunity to practise. Then start all the groups at the same time and see which group can be the first to reach twenty. Extend the activity by having the students count back in steps of two from twenty.

3. Acting out the story

Activity

Ensure that all the students are sitting quietly on floor. Select two volunteers to stand in front of the class and remove their shoes. Have the students place the shoes on the floor to make two groups of two. Ask, **How many groups of two can you see?** Once students have identified that there are two groups of two say, **We know that shoes come in twos. So how many shoes are there in total?** Point to each group of shoes as the students count in twos. Reinforce the students’ understanding by counting the groups and saying, **Two groups of two shoes is ... 2, 4 ... four shoes in total.** Continue the activity by asking other students to add their shoes to the existing groups of two.



4. Using materials to act out the story

Resources

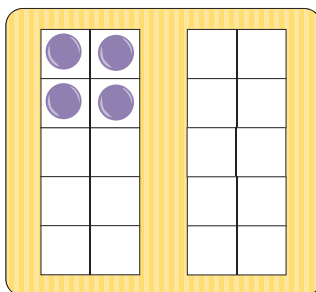
- *Shoes in Twos*
- *The Box of Facts: Addition/Subtraction*
- Transparent counters

Preparation

Select the double ten-frames from *The Box of Facts: Add/Subtract* kit. Each student will need one double ten-frame and 18 counters.

Activity

Read pages 2–3 of *Shoes in Twos*. Ask, **How many groups of two can you see in this picture?** Guide the students act out this scenario by placing their counters on the first ten-frame, two at a time.



Then have the students count in steps of two to figure out the total number of counters. Select a volunteer to identify the total. Then say, **Two groups of two shoes is four in total.** Repeat for the remaining pages of *Shoes in Twos*.

5. Using the teaching tool to act out the story



Resources

- *Teaching Tool*
- *Shoes in Twos*

Activity

Ensure that all students can see the *Teaching Tool*. Read pages 2–3 of *Shoes in Twos*. Ask, **How many groups of two can you see in this picture?** Select a volunteer to represent this number by moving two groups of two shoes onto the work area. Next, ask the students to count in steps of two to identify the number of shoes in total. Once students have identified the total number of shoes write the appropriate number sentence in the white panel on the *Teaching Tool*. Reinforce understanding by pointing to each part of the number sentence and saying, **Two groups of two shoes is four in total.** Repeat for each double-page spread of *Shoes in Twos*.



6. Using the teaching tool to make groups of two



Resources

- *Teaching Tool*

Activity

Ensure that all the students can see the *Teaching Tool*. Use the writing tool to write **6 groups of 2 is** ____ in the white panel at the base of the screen. Invite a student to model the problem. In this scenario, the volunteer would drag six groups of two shoes onto the work area. Next, have the remaining students count in steps of two to figure out the total number of shoes. Reinforce the students' understanding by saying, **Six groups of two shoes is twelve shoes**. Repeat for other incomplete number sentences.



7. Making and identifying groups of two

Resources

- *The Box of Facts: Addition/Subtraction*
- Transparent counters

Preparation

Select the double ten-frames from *The Box of Facts: Add/Subtract* kit. Each student will need a double ten-frame and 18 counters.

Activity

Say a number between 1 and 9. Challenge the students to place that number of groups of two counters on their double ten-frame. Then ask the students to say the number of groups of two, and then the total. Model the correct answer by saying, **I said 6. Six groups of two is ... 2, 4, 6, 8, 10, 12**. Repeat for the remaining numbers from 1 to 9.



8. Developing language

Resources

- Blank cards
- Felt marker

Activity

Write **groups of 2** on a blank card and display it to the students. Allow the students to discuss the meaning of the expression. Ask, **What is a group? What might a group look like? What other words can be used instead of the word group?** Encourage students to provide other words that have a similar meaning. If necessary guide students with **rows of 2, jars of 2, bags of 2, boxes of 2, containers of 2**, and so on. Write these and any other relevant suggestions on other cards and attach them to the board.

Retain the cards for Activity 9.

9. Making groups of two to match verbal descriptors

Resources

- Cards from Activity 8
- Transparent counters

Activity

Display the cards from Activity 8. Point to each in turn and have the students explain how they would show the example. Ask questions such as, **What would two jars of two look like? What would six bags of two look like? What would four rows of two look like?** Ask the students to use their counters to show the situation. Repeat for each of the cards. Finally, encourage the students to compare and contrast rows of two and groups of two.



10. Writing a story about groups of two

Resources

- *Shoes in Twos*
- Sheets of paper

Preparation

Each student will need a sheet of paper.

Activity

Reread the story *Shoes in Twos* and ask, **What other objects can be seen in groups of twos?** Some examples are hands, eyes, bicycle wheels, windows and door handles. Provide students with sheets of paper and help them to each write a story about groups of two. If necessary give an example, **My friend and I have two hands. Two groups of two is four.** Have the students illustrate their stories. Invite some students present their stories to the class for discussion. Finally, collect the stories and collate them into a book.

II. Using the teaching tool to write matching number sentences



Resources

- *Teaching Tool*

Activity

Ensure that all the students can see the *Teaching Tool*. Drag several pairs of shoes onto the work area. Use the writing tool to write ___ **groups of** ___ **is** ___ in the white panel below the work area. Challenge the students to complete the matching sentence. If students are having difficulty, point to each missing part in the sentence and ask, **How many groups are there? How many shoes in each group? How many shoes are there in total?** Repeat for different numbers of shoes.



12. Using the teaching tool to find the missing multiplier



Resources

- *Teaching Tool*

Activity

Ensure that all the students can see the *Teaching Tool*. Use the writing tool to write a “groups of” sentence that is missing its multiplier in the white panel below the work area. For example, write ____ *groups of 2 is 12*. Ask, **How many groups of two do you need to make twelve in total?** Invite a student to model the problem by dragging pairs of shoes onto the work area. Count in steps of two with the class as the shoes are moved, **2, 4, 6, 8, 10, 12**. Ask, **How many groups are there?** Write **6** to complete the sentence and then reinforce the students’ understanding by saying, **Six groups of two is twelve in total**. Repeat to complete other “groups of” sentences.

