

Ten Happy Hens

A book about take-away subtraction



Aim




The concept of subtraction can be categorised as one of three types: take away, missing addend, or difference.

Ten Happy Hens introduces take-away subtraction through the disappearance of hens from the chicken coop.

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

- listen to a story about take-away subtraction
- use materials to act out take-away situations
- use the *Teaching Tool* to act out take-away situations
- complete, represent, and develop number sentences
- link take-away subtraction with addition
- create and illustrate a take-away situation

Activities

1. Listening to the story
2. Acting out the story
3. Stepping back to act out subtraction
4. Using materials to act out the story
5. Using the teaching tool to act out the story 
6. Using the teaching tool to create new subtraction situations 
7. Introducing symbols
8. Using symbols to write number sentences
9. Using the teaching tool to link take-away subtraction with addition 
10. Drawing subtraction situations

1. Listening to the story

Resources

- *Ten Happy Hens*

Activity

Show the cover of *Ten Happy Hens* to the students and read the title aloud. Encourage volunteers to predict what they think the story might be about. Read the story in its entirety. Then ask, **What happened in the story? What did you see in each picture?** Encourage students to explain that the hens were running out of the chicken coop. Read the story again. For each double-page spread, ask, **What is the total number of hens? How many ran out? How many are left?**

2. Acting out the story

Resources

- *Ten Happy Hens*

Activity

Invite ten students to stand in an enclosed area. Read the story and have the students re-enact what happens on each double-page spread. Ask, **What is the total number of hens? How many ran out? How many are left?** Repeat the activity with different students acting as the hens and opening the pages in a different order.



3. Stepping back to act out subtraction

Resources

- *Ten Happy Hens*
- 10 large cardboard squares
- Large felt marker

Preparation

Use the large cardboard squares to make a floor number track from 1 to 10.

Activity

Place the number track in an open area of the classroom so that all the students can see. Select a student to stand on the number 10. Read pages 4–5 from *Ten Happy Hens* and have the student take one step back for every hen that leaves the chicken coop. For this example, the student would take 2 steps back to 8. Ask, **Why are we starting from 10? Why are we stepping back toward one? What does the number that we land on represent?** (The number of hens left in the chicken coop.) Repeat the activity with different students for each problem in the book and for other subtractions from 10 that are not pictured.

4. Using materials to act out the story

Resources

- *Ten Happy Hens*
- *The Number Case* Year 1
- Connecting cubes

Preparation

Select the ten-frames from *The Number Case*. Each pair of students will need a ten-frame and ten connecting cubes.

Activity

On the board, write **10 hens take away ____ hens is ____ hens.** Read pages 2–3 of the story and ask, **What is the total number of hens?** Have the students place their ten cubes on the ten-frame to represent the total number of hens in the story. Next, read pages 4–5 and ask, **How many hens are in the part that has been taken away?** Have students remove that number of cubes from their ten-frame, then have a volunteer write **2** in the correct space on the board. Finally, have the students count the number of cubes remaining on their ten-frame and ask another volunteer complete the sentence on the board. Repeat this process for each situation in the book.



5. Using the teaching tool to act out the story



Resources

- *Teaching Tool*
- *Ten Happy Hens*

Activity

Ensure that all the students can see the *Teaching Tool*. Read pages of 4–5 of *Ten Happy Hens*. Ask, **What is the total number of hens?** Invite a volunteer to drag 10 hens into the chicken coop. Then ask, **How many hens were in the part that ran out?** Again, invite a volunteer to drag the 2 hens out of the chicken coop and place them in the work area but outside the fence. Finally ask, **How many hens are left?** Point to each hen as the students count the number of hens that remain in the chicken coop. Use the writing tool to slowly write the take-away sentence in the white panel at the base of the screen. As you write, say, **We started with 10 hens (write 10), 2 hens were in the part that ran out (write *take away 2*) and 8 hens were in the part that was left (write *is 8*). 10 take away 2 is 8.** Discuss each part of the number sentence. Encourage students to explain what each part of the number sentence represents, for example, '10 is the total number of hens.' Repeat for each situation in the story.



6. Using the teaching tool to create new subtraction situations



Resources

- *Teaching Tool*
- *The Number Case* Year 1
- Connecting cubes

Preparation

Select the ten-frames from *The Number Case*. Each group of students will need a ten-frame and ten connecting cubes.

Activity

On the board, write ____ **take away** ____ **is equal to** _____. Challenge each group of students to copy the incomplete sentence and then write numbers in the spaces to make a true subtraction sentence. Students may use their ten-frames and cubes to help if necessary. Have each student record their number sentence.

Next, invite a volunteer from each group to use the *Teaching Tool* to demonstrate their number sentence to the class. For example, one student may drag 9 hens into the chicken coop and then move 5 hens out of the chicken coop, leaving 4 hens inside. Ask another student from the same group to use the writing tool to write the completed number sentence in the white panel at the base of the screen.

7. Introducing symbols

Resources

- Connecting cubes

Preparation

Each student will need ten connecting cubes.

Activity

Write **9 take away 6 is equal to 3** on the board. Read and discuss this number sentence. Then draw a line below **take away** and discuss what that expression means. Have students provide different words that could be used in its place. Then erase **take away** and write the subtraction symbol in its place. Say, **This symbol represents all the different ways we might say “take away”**. Ensure all the students understand before repeating to replace the expression “is equal to” with the equals symbol. Then provide each student with a small number of cubes and ask them to model then write their own subtraction number sentence using the subtraction and equals symbols. Have several students present their examples to the class.



8. Using symbols to write number sentences

Resources

- *The Number Case* Year 1
- Connecting cubes

Preparation

Select the ten-frames from *The Number Case*. Each pair of students will need a ten-frame and ten connecting cubes.

Activity

Write $10 - \underline{\quad} = 4$ on the board. Ask, **What number are we starting with? How many in the part that is left?** Have the students use cubes on their ten-frame to help figure out the missing part. Then ask, **How many in the part that was taken away? How do you know?** Repeat as time allows to examine all the basic facts that total 10.

9. Using the teaching tool to link take-away subtraction with addition



Resources

- *Teaching Tool*

Activity

Ensure that all the students can see the *Teaching Tool*. Click and drag 8 hens into the chicken coop and drag another 4 hens and position them outside the chicken coop. Challenge the students to write a take-away number sentence to match. If students are having difficulty, ask, **What do we know? What do we need to find out?** Encourage students to see that we know the number of hens in the part that ran away and we know the number of hens in the part that is left. What is not known is the number of hens in the total. Ask, **How can we find out the total number of hens?** Encourage students to see that the total number of hens can be found by adding the number of hens that ran away and the number of hens left. Use the writing tool to write the addition number sentence $4 + 8 = \underline{\quad}$ in the white panel at the base of the screen. Ask, **What is the total?** Write the total in the sentence and ask, **What is the subtraction number sentence?** Invite a volunteer to write the subtraction sentence $12 - 4 = 8$ alongside the addition sentence. Have the students record both number sentences before repeating the activity.



10. Drawing subtraction situations

Resources

- Art paper
- Crayons
- Felt markers

Activity

Work with the students to brainstorm several words or phrases that could be used in a subtraction story about animals, for example ran away, swam away, flew away, hopped away, and lost. Write each appropriate suggestion on the board. Have the students work in pairs or small groups to illustrate a take-away situation involving animals. At the end of the activity, collect the pictures and discuss each of them as class. They could then be made into a class subtraction book.

