

Cupcake Capers

A book about take-away subtraction







Aim

Subtraction can be represented using three different models: missing addend, take away, and difference (comparison). *Cupcake Capers* introduces take-away subtraction.

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

- listen to a story about a subtraction situation
- use materials and pictures to act out subtraction situations
- make links between subtraction and addition
- write related addition and subtraction facts

Activities

1. Listening to the story
2. Using materials to act out the story
3. Using the teaching tool to act out the story 
4. Using the teaching tool to act out other problems 
5. Writing a story about take-away subtraction
6. Using the subtraction symbol 
7. Relating addition to subtraction 
8. Writing related facts

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I. Listening to the story

Resources

- *Cupcake Capers*

Activity

Show the cover of *Cupcake Capers* and read the title aloud. Encourage volunteers to predict what they think the story might be about. Read the story without discussion. Read the story again and ask, **What is happening in the story? What do you see in each picture?** Encourage the students to explain that Little Fox takes a number of cupcakes from the plate each time. Read pages 2–5 of the story and have the students identify the number of cupcakes on the plate and how many Little Fox is taking. Then ask, **How many are left?** Repeat for each double-page spread in the storybook.

2. Using materials to act out the story

Resources

- *Cupcake Capers*
- A large paper plate or tray
- 12 items to be used as cupcakes

Activity

Place the “cupcakes” on the plate where students can see it. Read pages 2–5 of *Cupcake Capers*. Ask, **How many cupcakes are did Father Fox put on the plate? How many cupcakes did Little Fox take first?** Invite a student to be Little Fox and take one cupcake from the plate. Then ask, **How many are left?** Repeat for each double-page spread of the storybook, choosing a different student each time to be Little Fox. To extend the activity, place all twelve cupcakes back on the plate and invite other students to take 1, 2, 3, or 4 cupcakes from the plate at a time and describe the numbers involved.



3. Using the teaching tool to act out the story



Resources

- *Cupcake Capers*
- *Teaching Tool*

Activity

Make sure all the students can see the *Teaching Tool*. Read pages 2–5 of *Cupcake Capers*.

Display the *Teaching Tool* and ask, **How many cupcakes should be on the plate at the start?**

Click and drag twelve cupcakes onto the plate in the work area.

Ask, **How many cupcakes does Little Fox take first?** Invite a student to click and drag a paw print to cover one of the cupcakes. Write **12 take 1 is 11** in the white panel at the bottom of the screen then click and drag the paw print and cupcake off the work area. Repeat to act out each situation in *Cupcake Capers*.



4. Using the teaching tool to act out other subtraction problems



Resources

- *Teaching Tool*

Activity

Make sure all the students can see the *Teaching Tool*. Click and drag ten cupcakes onto the plate in the work area. Say, **Imagine Father Fox baked ten cupcakes.** Click and drag paw prints onto four of the cupcakes. Ask, **How many cupcakes did Little Fox take? How many are left? What sentence can we write to describe what happened?** Write **10 take away 4 is 6** in the white panel at the bottom of the screen. Then clear the *Teaching Tool* and invite a student to use it to create a different subtraction problem. Have them alter the subtraction sentence to match.



5. Writing a story about take-away subtraction

Resources

- *Cupcake Capers*

Activity

Read *Cupcake Capers* to the students. Discuss how Little Fox takes cakes that Father Fox has baked. Challenge the students to make up a story where there is an original amount of something that gets changed by taking part of it away. Provide suggestions such as buying items from a store or birds flying away from a tree. The story could involve progressive subtraction as featured in *Cupcake Capers*, or just a single instance. The students can write and/or illustrate the story. Afterward, invite a few students to share their story.

6. Using the subtraction symbol



Resources

- *Cupcake Capers*
- *Teaching Tool*

Activity

Make sure all the students can see the *Teaching Tool*. Read pages 2–5 of *Cupcake Capers*. Click and drag twelve cupcakes onto the plate in the work area. Click and drag one paw print onto a cupcake. Write **12 take away 1 is 11** in the white panel at the bottom of the screen. Underline **take away** and discuss what the expression means. Discuss other phrases that could be used in its place. Erase **take away** and write the subtraction symbol in its place and explain that the symbol can be used instead of words. Work through the remaining take-away situations in *Cupcake Capers* and alter the sentence as appropriate. If the students are ready, use the equality symbol in the sentence. To extend the activity, write number sentences to show the cumulative subtraction that takes place over the whole story:

$$12 - 1 = 11$$

$$12 - 1 - 3 = 8$$

$$12 - 1 - 3 - 3 = 5$$

$$12 - 1 - 3 - 3 - 4 = 5$$

If the students have completed Activity 5, encourage them to also write subtraction sentences that use the subtraction symbol to match their story.



7. Relating addition to subtraction



Resources

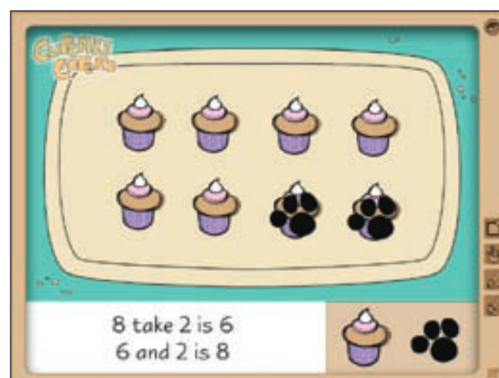
- *Teaching Tool*

Activity

Make sure all the students can see the *Teaching Tool*. Click and drag eight cupcakes onto the plate in the work area. Click and drag paw prints onto two cupcakes. Ask, **What can you tell me about this picture?** Bring out the idea that there is a total number of cupcakes (8), an amount that is taken away (2), and an amount that is left (6). Write **8 take 2 is 6** in the white panel at the bottom of the screen. Say,

Imagine that Little Fox put the cupcakes back. What sentence would we write to show that happening? Write the addition sentence **6 and 2 is 8** below the subtraction sentence.

Point out that both sentences have parts and a total. Clear the *Teaching Tool* and create other scenarios. Call on students to identify the parts and total for each scenario and write an addition and subtraction sentence to match.



8. Writing related facts

Resources

- Two 10-sided dice for each group of students

Activity

Move the students into groups of three or four. Discuss how addition and subtraction are related. Point out that they both involve parts and a total – in addition the parts are known but not the total, and in subtraction the total and one of the parts is known but not the other part. Distribute the dice to each group and say, **Roll the two dice and add the numbers together. Each person in the group should write the two addition facts that are possible for each pair of numbers.** Show an example of rolling 7 and 4 and writing $7 + 4 = 11$ and $4 + 7 = 11$. Once the students have completed the task, ask, **What subtraction facts can you write that involve the numbers you wrote for the addition sentences?** Review the idea again that subtraction involves knowing the total and one of the parts. Elaborate on the example used before and write $11 - 7 = 4$ and $11 - 4 = 7$. Have the students roll the dice and write the matching sentences. Repeat as time allows.

