

Problem Solvers Activity 8: The Hungry Snake

CHILDREN ARE LEARNING TO...¹

- Understand that adding one or more objects will increase the quantity of the set, and that taking away one or more objects will decrease the quantity of the set.
- Understand that putting two sets of objects together will make a bigger group.

MATERIALS NEEDED:

Masking tape, enough to mark a 5-foot by 5-foot square on the floor

A sock (to be used as a hand puppet)

Red felt (optional)

Black permanent marker OR googly eyes/fabric glue (optional)

2 wide-mouth plastic jars, deli containers, or boxes with lids removed (one for each pair of students)

Small counters that will fit inside the jar, up to 10 for each pair of students (20 total), for example, cube blocks, cotton balls, or small toy mice

2 Baskets

PREPARATION:

- Use the masking tape to create a 5-foot square on the rug or floor. The square should be wide enough so that all the children in the group can squeeze inside it.
- To make the snake sock puppet, glue googly eyes to the sock or add eyes using a permanent marker. Add a tongue of red felt if desired.
- Place 10 counters in each of the 2 baskets.
- Prepare copies of the parent handout for distribution.
- If you plan on implementing the optional book activity, refer to the preparation instructions in that section.
- This activity is based on the book *Mouse Count* by Ellen Stoll Walsh and adapted from "Mouse Collections" from the Erikson Institute (<https://earlymath.erikson.edu>). It may be helpful to preview the story and video to assist you in retelling. (<https://earlymath.erikson.edu/mouse-collections-preschool-storytime-game/>)

¹ California Department of Education (2008). *Preschool Learning Foundations*. Retrieved from <https://www.cde.ca.gov/sp/cd/re/documents/pre-school.pdf>

ACTIVITY INSTRUCTIONS

ENGAGE

Gather a group of 4 children outside the square on the floor.

Keep the sock puppet close by. Reserve the number cards, jars, and counters for the group activity.

SAY: Today I am going to tell you the story of a very hungry snake. What do you know about snakes? (Where do snakes sleep? What do they eat?) *Take several responses from children to activate their background knowledge.*

Place the sock puppet on your arm.

SAY: Problem Solvers, meet my snake! Is it a real snake? (No.) What do you think this pretend snake likes to eat? *Take guesses, and explain that this snake like to eat mice.* Today, we're going to play a game called "The Hungry Snake." Wiggle the sock puppet on your arm.

SAY: I'll be the snake today. You be the mice.

EXPAND

SAY: My snake has a jar right here [point to square on the floor] to collect little mice to eat as a snack! How many mice are in the jar right now? [None!] Let's listen to the story and if my snake taps your shoulder, you move to the jar. Are you ready to play?

SAY: The mice are playing in the meadow. They are getting very sleepy. Can you little mice pretend to be sleepy?

SAY (snake voice): I am a very hungry snake.

I am looking for mice that are little, warm, and tasty.

Oh, I see two mice.

I will put them in my jar to eat later.

[Tap two children on the shoulder and ask them to move into the center of the circle, the "empty jar."]

ASK: Is the jar empty now? No? How many mice are in the jar? [Count together: one, two.] Yes! I have **two** mice in the jar.

- **Continue the game**, adding the remaining "mice" to the jar in groups of one, two, or three, depending on the number of children in the group. Count the total number of mice in the jar each time mice are added.

Once all students are in the jar, explain that the snake is going far, far away to search for an especially big mouse. [Hide the snake behind your back.]

Explain that while the snake is gone, all of the mice can move back to their places outside the square at the count of three: 1, 2, 3!

ASK: Who can tell how many mice are in the jar now? [NONE! It's empty.] Good luck, snake! No mice for you today!

FOR TEACHERS: 5 FACTS ABOUT SNAKES

1. Snakes are carnivores—which means they eat meat, usually mice, rats, birds, squirrels or other small animals.
2. Snakes can't bite food so they have to swallow it whole. They have flexible jaws that open very wide to help them swallow food bigger than their head!
3. Snakes are covered in smooth, dry scales.
4. Snakes smell with their tongues.
5. Snakes sleep where they will be safe from other animals. Often they sleep in dead trees, or find rocks, stones or trees they can burrow under. Snakes sleep with their eyes open because they don't have eyelids!

EXPLORE

Play again as a group, selecting different quantities of mice to go in the jar each time.

Try “Hungry Snake” as a partner activity. Form pairs of children and give each pair a jar and a basket of counters (offer more or fewer counters to make the activity more or less challenging).

Explain: In this game, you will take turns with your partner choosing how many mice to add to your jar. I’ll go first.

Say: I am a very hungry snake, and I am going to put 3 mice in the jar to save for later.

Count out 3 mice and drop them into the jar.

Select a child to take a second turn: Now you’re the hungry snake. How many mice do you want to add to the jar?

Give the child time to select and count their mice and add them to the jar. If desired, encourage use of the language from the story: “I am a very hungry snake, and I am going to put 1 mouse in the jar.”

Continue the demonstration until all the mice are in the jar.

Say: All the mice are in the jar and snake is going to slither away to look for more. It’s a perfect time for all our mice to ESCAPE! Who wants to let the mice out of the jar?

Select a child to turn the jar upside down and pour the mice out.

ASK: What can we do to figure out how many mice got out of the jar?

Select a child to count the total number of mice that were in the jar. Encourage other children to count along.

TRANSITION to partner practice with partners taking turns telling mouse stories and deciding how many mice to add to the jar. Ensure each group gets 2-3 turns counting and releasing mice.

REFLECT

Close the activity by gathering children and asking each group about their mouse stories:

- Did your snake get many mice? Or just a few mice? How can you tell?
- What did you do to figure out how many mice got out of the jar?

Dismiss students by putting the snake puppet back on your hand and saying, “Now my snake friend is going to choose who will go back to the group. I will pick **these two mice!**” Continue until all children are dismissed.

Individualizing the Activity

MAKE IT MORE CHALLENGING:

- Use a larger group of children for the opening activity. Increase the final number of mice in the jar to ten.
- Tell how many mice/children are in the jar by “counting on” from the number in the previous turn. For example, if there were 3 mice/children in the jar and 2 were added, ask children how many mice are in the jar (3) and count from there: 3, 4, 5.
- You can also change the opening activity to have smaller groups of mice escape the jar and then count to see how many are left: “2 mice jumped out of the jar. How many are left inside?” This adjustment introduces the concept of subtraction.

MAKE IT LESS CHALLENGING:

- Limit the number of mice in the jar, adding one at a time for a total of four.
- Count the total number of mice in the jar each time one is added.
- Begin counting mice/children from one each time, rather than starting with the number in the jar and counting on.
- For the partner activity, offer a small (4-5) quantity of counters.

MAKING CONNECTIONS ACROSS THE DAY:

- Point out and count small collections throughout the day: 3 blue crayons and 2 red crayons, 1 child on a tricycle and 2 pulling a wagon, etc.
- Display family photos and ask children to describe who’s in their family: 1 child and 2 adults; 1 brother, 1 sister, 1 mom, 2 dogs
- Notice small sets during lunch or snack time—3 slices of orange or 1 piece of pizza.
- Point out how sets can change by adding or removing. For example, at the train table, you might notice how there are 3 trains but when Marcus adds a caboose, it becomes 4. Or during free play, 4 children may be playing in Housekeeping but one leaves to use the bathroom; now there is a group a 3.

Song: *Mice in a Jar*

Materials: Jar and 5 counters of different colors (Children should be able to see and count the counters in the jar.)

A hungry snake went looking for some mice to eat. (*Wiggle arm like a snake*)
He found one and thought it was a great treat. (*Hold up one finger, rub belly*)

He put the mice into a jar (*Place one counter in a jar; children pretend*)
And then went looking for some more. (*Hand to forehead, look around*)

How many mice are in the jar? One! (*Point to the counter in the jar and say "One" aloud.*)

The hungry snake went looking for more mice to eat. (*Wiggle arm like a snake*)
He found two more and thought it was a great treat. (*Hold up two fingers, rub belly*)

He put the mice into the jar (*Place two more counters in the jar; children pretend*)
And then went looking for some more. (*Hand to forehead, look around*)

How many mice are in the jar? (*Point to the counters in the jar*)
One, two, three—Three! (*Count aloud*)

The hungry snake went looking for more mice to eat. (*Wiggle arm like a snake*)
He found two more and thought it was a great treat. (*Hold up two fingers, rub belly*)

He put the mice into the jar (*Place two more counters in the jar; children pretend*)
And then went looking for some more. (*Hand to forehead, look around*)

How many mice are in the jar? (*Point to the counters in the jar*)
One, two, three, four five—Five! (*Count aloud*)

The hungry snake went looking for more mice to eat. (*Wiggle arm like a snake*)
But the mice got out and ran away...watch them flee! (*Wiggle five fingers out and away from the body*)

Five, four, three, two, one, zero! (*Count backward aloud*)
No more mice for the snake to eat! (*Palms up, shrug shoulders*)

BUILD ON THE SONG:

Perform the movements indicated in the song and encourage the children to do what you do.

Making Literacy Connections

Suggested Book: *Mouse Count* by Ellen Stoll Walsh

AS YOU READ:

Encourage children to count the mice along with the story. Point to each mouse as you count it.

Use a pause to prompt children to fill in key words from the story. For example, the snake has collected seven mice but he was “very, very [pause to let children fill in the word] *hungry* – and seven mice were not enough.”

You can also pause to have children fill in the repeated phrase used to describe the mice: “little, warm, and tasty, and...[pause] fast asleep.”

You can ask children questions to help them understand the story:

- Do you think there is really a “big mouse” over in the bushes? Why do you think the little mice are trying to send the snake away? (No – the mice are trying to send the snake away so they can escape!)
- Why do you think the little mice are rocking the jar? (They are trying to tip the jar over and escape.)
- What did the “big mouse” turn out to be? (A rock)

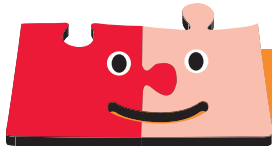
Note that you may have to pre-teach the word *greedy*. Greedy means that the snake wants something (mice!) very, very much—he wants more than he needs. The snake is greedy for mice because he’s very hungry. Snakes eat mice for food.

As the mice escape the jar, you can encourage children to count backward from 10 to 1, along with you. However, note that counting backward is a kindergarten skill and children will need your help.

BUILD ON THE BOOK:

Materials: Basket of animal figures or any small item that could represent an animal like counting bears (at least 10 per pair of children), wide-mouth plastic jar or bucket (1 per pair of children)

1. Create pairs of children.
2. Say, “In our story, the snake collected 10 mice. Let’s see if we can collect 10 animals.”
3. Place the basket of animals on a table and give each pair a plastic jar.
4. Say, “Okay Problem Solvers, we’re going to read the story again. As we read the story and the snake collects his mice, you and your partner are going to collect the same quantity of animals in your jar.”
5. Read the story again, pausing at the page where the snake first collects 3, then 4, then 3 mice. Use the book’s counting text to prompt children to count each animal as they put it in the jar.
6. When 10 animals have been collected, follow the story’s cues and have children dump out the counters. Encourage children to repeat the book’s countdown from 10.
7. If children want to continue playing, you can re-tell the story by giving them different quantities of animals to collect, like 2 mice, then 4, then 3, then 1.



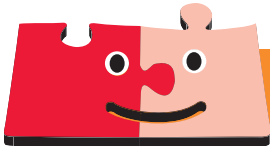
Just for Families

Adding to Everyday Moments

This week, look for ways to show children that by combining small groups of items, they make a bigger group. This is the very beginning of learning how to add.

Here are some ideas to try:

- During bath-time, count the fingers on one of your child's hands (5!). Then take their other hand out of the water and count those fingers (5!). How many fingers do they have on *both* hands altogether? Let's see! With your child, point to each finger and count to ten. You can try this with toes, too!
- At mealtime, count how many carrots (or other food items) your child has on their plate. Ask if they'd like one or two more, and count again. After they have eaten some, notice how the quantity has changed and count again.
- When putting away toys, ask your child to put one or two items in a box and then ask them to put away one or two more. Count how many you have all together.
- Count items as you put them into the grocery cart. "Let's put two apples into the cart: 1, 2. Now three oranges: 3, 4, 5. What can we do to find out how many fruits we have all together?"



Solo para familias

Aprender a sumar durante los momentos cotidianos

Esta semana, busque maneras de mostrarles a los niños que, al combinar pequeños grupos de artículos, forman un grupo más grande. Este es el comienzo de aprender a sumar.

Aquí hay algunas ideas para probar:

- Durante la hora del baño, cuente los dedos de una de las manos de su hijo (¡5!). Luego saque su otra mano del agua y cuente esos dedos (¡5!). ¿Cuántos dedos tiene en ambas manos en total? ¡Veamos! Con su hijo, señale cada dedo y cuente hasta diez. ¡También puede probar esto con los dedos de los pies!
- A la hora de comer, cuente cuántas zanahorias (u otros alimentos) tiene su hijo en su plato. Pregúnteles si les gustaría uno o dos más, y cuenten de nuevo. Después de que hayan comido un poco, observe cómo ha cambiado la cantidad y cuente nuevamente.
- Cuando guarde los juguetes, pídale a su hijo que ponga uno o dos artículos en una caja y luego pídale que guarde uno o dos más. Cuente cuántos objetos tiene si los suma todos juntos.
- Cuente los artículos a medida que los coloca en el carrito de comestibles. “Pongamos dos manzanas en el carrito: 1, 2. Ahora tres naranjas: 3, 4, 5. ¿Qué podemos hacer para averiguar cuántas frutas tenemos? Contemos: 1, 2, 3, 4, 5. Cinco frutas para desayunar”. (Cuando cuente en voz alta y explique lo que está haciendo, demuestre el proceso incluso antes de que su hijo pueda hacerlo por sí mismo. Puede pedirles a los niños mayores que le muestren cómo contarían ellos la fruta).