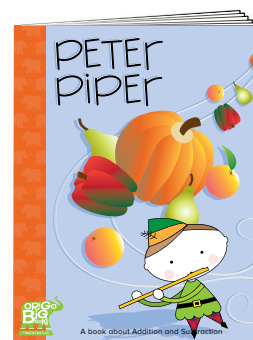


# Peter Piper

A book about Addition and Subtraction



## Aim


*Peter Piper* introduces addition and subtraction within five.

Students explore concrete and pictorial representations of addition and subtraction through real-world examples.

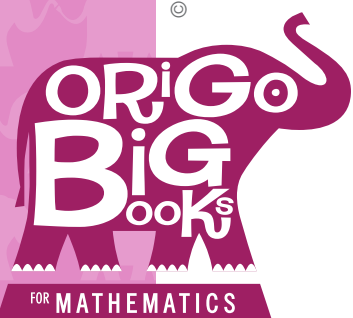
These whole-class/large group and small group activities provide students with the opportunity to:

- listen to a story about addition and subtraction
- listen to the accompanying story tune
- use materials to explore addition and subtraction
- use the teaching tool to model addition and subtraction
- describe the numbers in collections and the total

## Activities

1. Listening to the story
2. Listening to the tune
3. Using materials to act out the story
4. Using the teaching tool to model addition and subtraction 
5. Using story mats for active addition and subtraction
6. Using story mats for static addition
7. Changing numbers within five
8. Finger combinations
9. Playing how many are hiding
10. Combining dot arrangements

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# I. Listening to the story

## Resources

- *Peter Piper*
- Support 1 — see attached (optional)

## Preparation

Print 1 copy of Support 1. Cut out the cards (optional).

## Activity

Display the cover of the book. Before reading, ask for predictions. Say, **What do you see on the cover? What is the same about these objects?** Read the story. Then revisit ideas about what was the same about the objects on the cover. Ask, **What did Peter Piper do with these objects on the cover? Did you notice more ways these objects are the same?** Read the story again, pausing to make sure your students understand the words *picked* and *packed*. During the second read, consider listing the objects as Peter picks them in the story. Draw a picture of each object or use the support page. Then write the name next to each object. If necessary, emphasise the /p/ sound at the beginning of each word. Ask, **What are other things Peter could pick?** Accept answers of items beginning with other sounds and items that do not grow in nature.

# 2. Listening to the tune

## Resources

- *Peter Piper*
- Big Book Tune *Peter Piper*
- Support 1 — see attached
- Container or work mat for “packing” (e.g. a crate, shoebox, or five-frame)

## Preparation

Print copies of Support 1 so every student has a set of object cards. Cut out the cards. Place the container/work mat in the middle of the students.

## Activity

Play the Big Book Tune while following along with the Big Book. Encourage a volunteer to turn the pages of the book along with the song. Ask them to point to the action in the book as it is mentioned in the song. Distribute the different foods from the book so that each student has one food, and then replay the song. Encourage the students to “pack” their food into the container when their food is “packed” in the song. Repeat the activity. Stop the song at each scene and count the foods that are packed.



### 3. Using materials to act out the story

#### Resources

- *Peter Piper*
- Cards from Activity 2 (plus extra copies of Support 1 if necessary; cards cut out)
- Masking tape
- Large sheet of paper, or boxes

#### Preparation

Encourage students to be involved with the preparation of the materials for this activity. Allow students colour the foods. Consider allowing the students to create 2D or 3D representations of the foods instead of using the cards. Use masking tape to create a five-frame on the floor; or connect five similar boxes; or draw a five-frame on a large piece of paper to represent a packing container.

#### Activity

Ask for volunteers to model the story. Read the story, encouraging the volunteers to act out the story with the materials. Talk about the action in each illustration. Explain to students that pepper is another name for capsicum. Ask, **How many peppers are on the plant? How many peppers is Peter pulling with the rope? How many peppers has Peter packed? How many peppers does he still have to put in the box?**

**How many peppers will be packed when Peter is done?** After reading the story, allow the students to create different scenarios. Ask, **What can you say about the pears? How many did you pick? How many are left? How many pumpkins did you pack? How many empty boxes are there?**

### 4. Using the teaching tool to model addition and subtraction

#### Resources

- *Teaching Tool*



#### Activity

Invite a student to move food to the work area. To simplify the task, consider limiting the student to only move one or two kinds of food at a time. Have the student describe the action of picking and/or packing their food as they move it. **How many pumpkins did you pick? Will you pack all of them? How many have you packed? What if you packed one more?** Ask, **Which number would show how many pears are on the tree? Which word would you use to say how many pears are packed?** Encourage the student or another volunteer to label the groups of food with these numerals and/or number words.



## 5. Using story mats for active addition and subtraction

### Resources

- Support 2 and Support 3 (3 pages) — see attached

### Preparation

Print 1 copy of Support 2 for every five students. Cut out the cards, keeping them in sets. Print 1 copy of Support 3 for every three students. Place the work mats and food cards in the center of the group.

### Activity

Allow each student to choose a work mat. They also collect a set of cards to act out picking and packing. Have the students show food on their mat. Explain to students that pepper is another name for capsicum. Ask, for example, **How many peppers are on your vine? How many have you picked? How many are on the vine now? How many have you packed?** Ask the students to describe the action (i.e. addition or subtraction).

## 6. Using story mats for static addition

### Resources

- Work mats and cards from Activity 5
- Colouring materials (optional)

### Preparation

Print 1 copy of Support 2 for every five students. Cut out the cards. Consider allowing students to colour the foods using different colours, or give each student two different foods. Print 1 copy of Support 3 for every three students. Cut out the mats.

### Activity

Allow each student to choose a mat and materials to act out a story. Say, **Tell me about your food.** Listen for descriptions that include the categories and number. Prompt the student if necessary, or model language such as, **There are four pears in the tree. One is red and three are green.** Or, **there are two pumpkins and two peppers. That's four.**



## 7. Changing numbers within five

### Resources

- Support 4 and 5 — see attached
- Counters that will fit in the five-frame boxes (or cards from Activity 6)

### Preparation

Print 1 copy of Support 4 for every two students. Cut out the five-frames. Print 1 copy of Support 5. Cut out the cards.

### Activity

Give each student a five-frame and five counters. Place the numeral cards facedown on a table. Ask a student to choose a number card and read the number. Tell the students to put that many counters on their five-frame. Ask for another volunteer to choose another numeral card from the table. Tell the students to change the numbers on their five-frame to show the new number. **How did you change your number?** Watch students to determine who can add to or take from a number on the frame, and who needs to remove all of the counters and start counting from one. Model language that describes the action of the counters. For example, **You had one counter and put two more to change your number to three.** Or, **You had five and took one off to change your number to four.**

## 8. Finger combinations

### Resources

- Cards from Activity 7

### Activity

Explain that in this activity students will work together to make numbers. Ask for two volunteers. Have each student put up one or two fingers on one hand. Ask a third student to determine, **How many fingers are up if we put them together?** If necessary, move the student's fingers closer together so it is easier to continue the count from one hand to the other. Ask for a volunteer to label the groups using the number cards as they say, for example, '2 fingers add 2 fingers is 4 fingers altogether'. For a challenge, choose a number and ask two students if they can work together to show that many fingers. For example, if three is chosen, one student could show one finger and the other could show two fingers.



## 9. Playing how many are hiding

### Resources

- Counters
- Piece of cloth or felt to screen items

### Activity

For an individual activity, place a small number (five or fewer) counters on a table. Ask a student, **How many are there?** After the student determines the number of items, ask the students to look away while you leave the counters in the same position and cover one or two counters with your screen. Have the students look at the counters again and ask, **How many are hiding? How did you figure that out?** Lift the screen to allow the students to check if they are correct. Repeat the process with different numbers of counters and hiding various numbers. *Note:* It is more difficult to determine larger numbers of hidden objects. Try hiding all of the items or none of the items (place the screen next to the counters) as a challenge.

## 10. Combining dot or star arrangements

### Resources

- Support 6 — see attached

### Preparation

Print 1 copy of Support 6. Cut out the cards and place them facedown on a table.

### Activity

Have a volunteer draw two cards and display them face up on the table. Ask the student how many dots or stars are on each card. Then ask the student how many dots or stars are on both cards. If students struggle with counting the dots/stars on the cards, try using two groups of counters that can be added or taken away to keep track of which items have been counted. Consider allowing students to make cards with dot patterns using stickers or paint daubers.











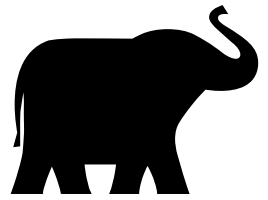








# Dot and Star Cards



A single black dot.	Two black dots arranged vertically.	A single black dot.	A single black five-pointed star.
A single black dot.	Three black dots arranged in a diagonal line from bottom-left to top-right.	A single black dot.	A single black dot.
Three black dots arranged in a diagonal line from bottom-left to top-right.	Three black five-pointed stars arranged in a diagonal line from bottom-left to top-right.	Two black dots arranged in a diagonal line from bottom-left to top-right.	Two black five-pointed stars arranged in a diagonal line from bottom-left to top-right.
Two black five-pointed stars arranged in a diagonal line from bottom-left to top-right.	Three black dots arranged in a diagonal line from bottom-left to top-right.	Two black five-pointed stars arranged in a diagonal line from bottom-left to top-right.	Two black dots arranged in a diagonal line from bottom-left to top-right.