

A Simple Stew

A book about growing number patterns

Aim





A Simple Stew introduces a simple growing pattern represented with pictures and numbers.



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

- listen to a story about growing patterns
- use concrete materials and pictures to match and create growing patterns
- examine how patterns change
- explore different ways to add the numbers used in growing patterns

Activities

1. Listening to the story
2. Using the teaching tool to act out the story 
3. Using materials to act out the story
4. Writing a story about growing patterns
5. Exploring other growing patterns 
6. Exploring decreasing patterns 
7. Exploring number patterns 
8. Working with compatible addends

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I. Listening to the story

Resources

- *A Simple Stew*

Activity

Show the cover of *A Simple Stew* 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 students to explain that the squirrels are choosing vegetables in a particular way: the quantity of each type of vegetable is one more than the previous type. Read pages 8–9 of the story and have the students identify the quantities of each type of vegetable. Repeat for each double-page spread of the storybook. Afterward, ask, **If the squirrels were going to put in another type of vegetable, how many should they use to keep the pattern going? How do you know?**

2. Using the teaching tool to act out the story

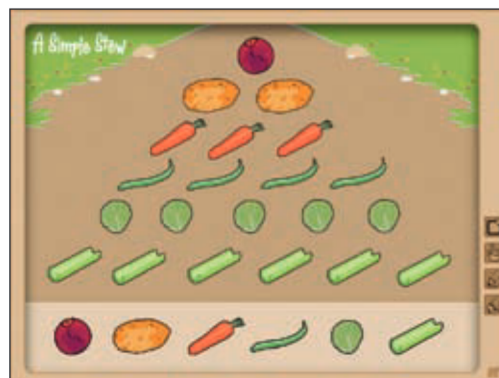


Resources

- *A Simple Stew*
- *Teaching Tool*

Activity

Ensure all the students can see the *Teaching Tool*. Read pages 6–7 of *A Simple Stew*. Ask, **How many onions do the squirrels use?** Invite a student to use the *Teaching Tool* and click and drag an onion to the top of the work area. Repeat with the other double-page spreads in the story. Afterward, ask, **If the squirrels were going to use another type of vegetable, how many should they use to keep the pattern going? How do you know? What vegetable could they use?** Use the drawing tool to draw the next row of vegetables.



3. Using materials to act out the story

Resources

- *A Simple Stew*
- Cubes or counters (in at least six colours) for each student
- Support 1 (see attached)

Preparation

Make a copy of Support 1 for each student.

Activity

Read pages 6–7 of *A Simple Stew*. Ask, **How many onions do the squirrels use?** Direct each student to place a counter at the top of their pot on Support 1. Read pages 8–9 and ask the students to identify the number of potatoes going in to the stew. Each student should place two counters of another colour into their pot. Draw the students' attention to the fact that the three counters together make the shape of a triangle and encourage the students to copy the arrangement. Repeat with each double-page spread of the storybook, each time pointing out that adding the new ingredients to the bottom of the triangle makes the triangle grow.

4. Writing a story

Resources

- *A Simple Stew*

Activity

Read *A Simple Stew* to the students. Discuss what happens to the number of vegetables on each double-page spread. Challenge the students to make up a story where the number of things increases. Provide suggestions such as animals arriving at a party or items being juggled by a clown. The students can write and/or illustrate the story. Afterward, invite a few students to share their story. Ask the remaining students to identify how things are increasing with each new event in the story.



5. Exploring other growing patterns

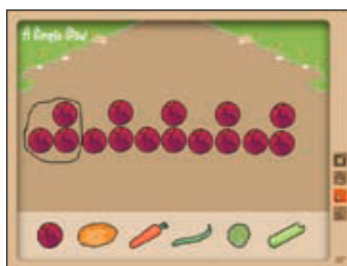


Resources

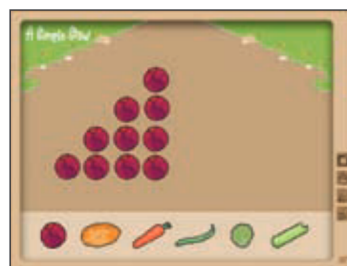
- *Teaching Tool*
- Cubes or counters for each student

Activity

Ensure all the students can see the *Teaching Tool*. Click and drag onions onto the work area to make Pattern 1 shown below. Say, **This pattern is a repeating pattern. There is a part that repeats over and over again. What will come next in the pattern? How do you know?** Loop the repeating part as shown below. Invite two students to each demonstrate different repeating pattern using other vegetables. Afterward, clear the work area then click and drag onions onto the work area to make Pattern 2 shown below. Say, **This pattern is a growing pattern. Each new part of the pattern increases. What will come next in the pattern? How do you know?** Discuss the students' answers and point out the similarity to the pattern in the storybook. Repeat for Pattern 3 shown below. Challenge the students to use the cubes or counters to create a growing pattern. Invite individuals to show their patterns using the *Teaching Tool*.



Pattern 1



Pattern 2



Pattern 3

6. Exploring decreasing patterns

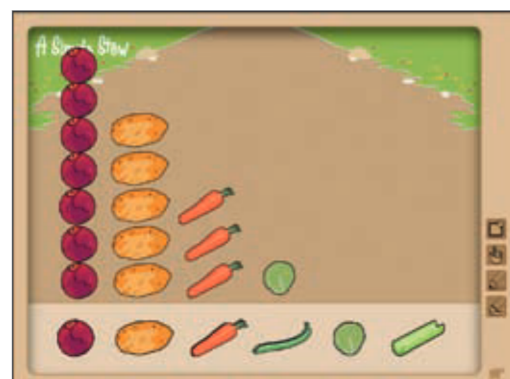


Resources

- *Teaching Tool*
- Cubes or counters for each student

Activity

Ensure all the students can see the *Teaching Tool*. Click and drag vegetables onto the work area to make the pattern shown below. Say, **Look at this pattern from left to right. What is happening with each type of vegetable?** Bring out the idea that the number of vegetables is decreasing by two with each new type of vegetable. Challenge the students to use the cubes or counters to create a pattern where each new step is less than the one before. Invite individuals to show their patterns using the *Teaching Tool*.



7. Exploring number patterns

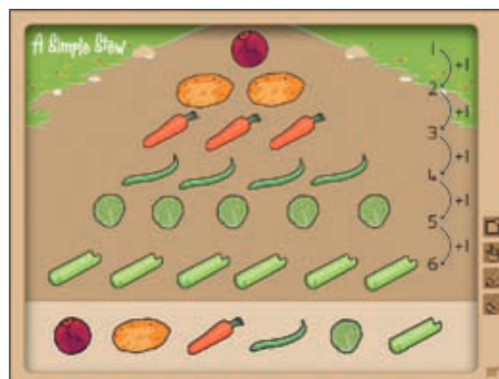


Resources

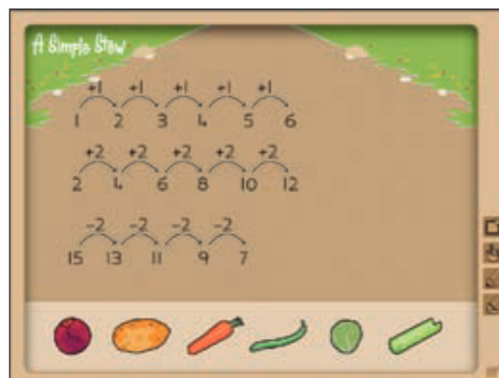
- *A Simple Stew*
- *Teaching Tool*
- Cubes or counters for each student

Activity

Ensure all the students can see the *Teaching Tool*. Read pages 6–7 of *A Simple Stew*. Ask, **How many onions do the squirrels use?** Invite a student to click and drag an onion to the top of the work area. Repeat with the remaining double-page spreads in the story. Say, **The vegetables show a pattern that grows. The number of each type of vegetable shows a pattern that grows too.** Read the final double-page spread and use the drawing tool to write the numerals 1 to 6 beside the pattern on the *Teaching Tool*. Say, **The number pattern grows by one each time.** Adjust the diagram to show jumps between each numeral.



Clear the *Teaching Tool* and write the numerals 1 to 6 again, showing the jumps between each numeral. Write the second number pattern (without the jumps) shown below and ask the students to identify how the pattern is growing. Draw jumps to show that each number is two greater than the previous number. Then write the third number pattern (without the jumps) shown right and discuss how the numbers change. Challenge the students to write some other growing number patterns. They should then choose one of their patterns or one shown on the *Teaching Tool* and use the materials to represent it.



8. Working with compatible addends

Resources

- *A Simple Stew*

Activity

Read *A Simple Stew* to the students. Refer to the final double-page spread and write the numerals 1 to 6 on the board. Ask, **What number sentence could we write to show how to add the types of vegetables?** Write the number sentence $1 + 2 + 3 + 4 + 5 + 6 = \underline{\quad}$ on the board. Ask, **What is the total? The squirrels in the book wanted less than 22. How can we make sure there are less than 22?** Have the students work in pairs to discuss their ideas. Then discuss their ideas as a class. Point out that the numbers can be rearranged to make the addition easier. Draw the diagram below on the board to show one example.

$$\begin{array}{cccccccc} 6 + 4 & + & 3 + 2 & + & 5 & + & 1 & \\ \checkmark & & \checkmark & & & & & \\ 10 & + & 5 & + & 5 & + & 1 & \\ & & \swarrow \quad \searrow & & & & & \\ & 15 & & + & 5 & + & 1 & \\ & & & & \swarrow \quad \searrow & & & \\ & & & & 20 & + & 1 & \\ & & & & & & \swarrow \quad \searrow & \\ & & & & & & 21 & \end{array}$$



Cooking Pot

