

Count the Number of Objects in Each Category

FOCUS

Mathematics Objective Count how many objects are in different categories.

Language Objective Count and then record the number of objects in different categories, using tally marks.

Essential Understanding Objects can be classified into two categories based on whether they have or do not have a particular attribute. Each group can then be counted.

COHERENCE

Look Back Previously in this topic, students classified objects into two groups.

This Lesson Students classify objects and write numbers to tell how many in each group.

Look Ahead Later, students will compare the number of objects in each group to find which is greater or less in number.

Additional Connection Classifying and counting the number in two categories uses counting strategies taught in this topic.

RIGOR

Conceptual Understanding Students deepen their understanding of classifying and sorting by connecting numbers to the sorted groups.

Vocabulary

- chart
- tally mark

Materials

- Two-color counters (or Teaching Tool 77) (optional)

Student Resources

 Family Engagement

Intervention System (IS)

A12 Numbers to 30

A19 Counting from Any Number

Teacher Resources

Available at
Savvas Realize®.

 Editable Lesson Plan

 Lesson Presentation Slides

 enVision on the Go: Planning Support



Notes

Language Support

Student Discourse Use this activity with the Explore and Share to help students explain their solutions. Involve multiple students as you use questions to expand and reinforce their answers.

Ask questions such as the following:

How do you know your counters are correct? [Sample answer: I put one counter for each creature, so they must be the same.]

How do you know your drawing is correct? You can't move the pictures like you can move counters.

[Sample answer: I drew one picture each time I counted one creature, so I knew how many.]

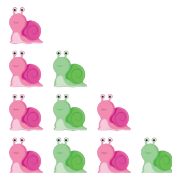
An additional activity is available online.

- Use the activity about connecting to students' experiences with the Visual Learning and Guided Practice.

Math Talk

What's the Pattern?

Describe the pattern.
How many snails will be in the next row?



Sample answer:
1 more snail each time.
There will be 5 snails in the next row.

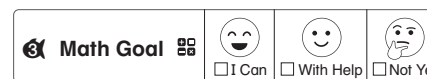
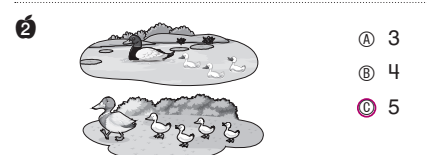
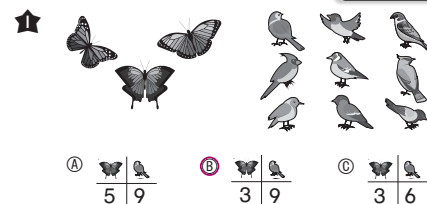
Problem Solving Show students the rows of snails, one at a time. Ask students to describe the pattern and the number of snails in each row with a partner. Then have students describe what the next row of snails will look like.

Exit Ticket

Formative Assessment

Name _____

Lesson 3-3
Exit Ticket



Directions: Have students mark the best answer. ★ Count the butterflies. Count the birds. Choose the chart that shows the correct numbers of butterflies and the birds. ⚡ Count the ducks in the pond. Count the ducks out of the pond. How many ducks are outside the pond? ⚡ I can count how many objects are in different categories.

Teacher Answer Key Assessment 1 of 1 Copyright © Savvas Learning Company LLC. All Rights Reserved.

Auto-scored version online.

Use the Exit Ticket results to support students as needed by reminding them that it is important to determine the two categories before beginning to count the items.

English Language Development

ELL English Language Learners (Visual Learning)

ELL English Language Learners (Guided Practice)

MLR7 Compare and Connect (Visual Learning)

Language Support (Visual Learning)

Step 1 Explore and Share

10-15 min

Explore and Share Scout Observational Assessment

Name _____

Count the Number of Objects in Each Category

I can ... count how many objects are in different categories.

Let's Build Lesson 3-3

Explore and Share

Directions Say: Marta goes outside and sees some animals. How many animals does she see on the ground? How many does she see that are NOT on the ground? Tell how you know you counted all of the animals.

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Sample Student Work

Carl's Work

Carl took off 1 counter at a time as he counted. How would this help Carl to count each category? [Sample answers: He would know when he has counted a creature; He would not count the same creature twice.]

Martina's Work

Martina miscounted one of the categories. Which category has Martina counted correctly? [On the ground] Which has she not counted correctly? [NOT on the ground] How do you know? [She has written the number 4, but there are 5 creatures that are not on the ground.]

ETP Explore and Share

Formative Assessment

Purpose Investigate ways to classify and count creatures in two different categories. Students explain the steps they took to count.

Materials Two-color counters (or Teaching Tool 77)

Introduce WHOLE CLASS

Ask: Have you ever been to a park and wondered how many animals were in the trees? Or how many animals were playing on the ground?

Monitor, Select, and Sequence SMALL GROUP

Observe students at work.

- **Do students understand the category NOT on the ground?** They might recognize this applies to the creatures in the air and also in both trees. If needed, ask *What does on the ground mean? Where would you find creatures NOT on the ground?*

Look for solutions that do not count the creatures in the tree. If students only count the creatures in the air or on the ground, ask: *Did you remember to count all of the creatures who are NOT on the ground?*

Select solutions for students to present. Remove the counters, one at a time, from each category and count out loud to see how many creatures are in each category.

Early Finishers

Ask: Draw 2 more creatures. Count again. How many creatures are on the ground? How many creatures are NOT on the ground? [Answers will vary.]

Connect WHOLE CLASS

Connect Solution Strategies Discuss students' work. Connect Carl's strategy to Martina's mistake. Encourage students to remove the counters from the image as they count to make sure they do not forget to count one.

Connect to the Visual Learning During the Visual Learning, connect to student work in Explore and Share. Be sure students understand that they are working to place the bugs into two categories and find how many creatures belong in each category.

 Visual Learning Animation

Visual Learning

Animation


A



B

C

	
6	7



Count.

Talk About Math Ideas

Directions Say: What do the numbers 6 and 7 in Box C tell you about the bugs in Box A?

146

Lesson 3-3

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ELL English Language Learners READING

Help students understand the term *tally mark*. Show students 4 counters. Count the counters. Then draw 4 tally marks on the board, counting as you draw each one. Have students count each one. Say: **These lines are called tally marks. There are 4 in all. I drew 1 for each counter. They can help me know I've counted each counter.**

Emerging Have partners find the tally marks in the Visual Learning. Read the word *count* with students. Then have one student count slowly to 6 while his or her partner draws 6 tally marks. Have partners switch roles and repeat.

Expanding Read the word *count* with students. Have partners make a tally of the number of letters in the word *count*. Have one student count the letters while his or her partner draws the tallies. Then have students discuss to define *tally marks* in their own words.

Bridging Read the word *count* with students. Ask students to count each of the tally marks in the Visual Learning. Then they should define *tally marks* in their own words and explain how tally marks can be useful in helping to count objects.

ETP Visual Learning

Essential Question Ask How can you find the number of objects that belong to each category?

Classroom Conversation

A What do you see? [Pictures of small creatures: insects, such as bees, a ladybug, caterpillars, millipedes, and spiders] Which creature has 6 legs? [A ladybug] Which has 8 legs? [A spider] Point to one of the caterpillars. This creature has lots of legs. Does it have more than 6 legs? [Yes] You can classify the creatures by those that have 6 legs and those that do NOT have 6 legs.

B Be Precise Point to the left picture. Which category does this show? [Has 6 legs] Point to the right picture. Which category does this show? [Does NOT have 6 legs] This is a chart. A chart is a way of showing what you found or how many you counted. Point to the tally marks. This line is a tally mark. One tally mark represents each creature you count.

C Reasoning How is this chart different from the one before? [There are no tally marks; there is just one number in each category.] Do the numbers match the number of tally marks we counted? [Yes] Using a number is another way of recording your count. What does 6 mean? [There are 6 creatures with 6 legs.] What does 7 mean? [There are 7 creatures that do NOT have 6 legs.]

Prevent Misconceptions Watch for students who miss bugs as they count. If they miscount bugs, have them mark out the bugs they have already counted with a crayon.

MLR7 Compare and Connect

Ask: How do you know this bug belongs in this category?
[This bug belongs in this category because it has 6 legs.]

ETP Talk About Math Ideas

Have students engage in a think-pair-share to discuss which categories each bug would belong in. Listen for conversations about how many legs each bug has and which category they would belong in based on the number of legs they have.

ETP Revisit the Essential Question

Students see that they can classify objects into two categories and then count and write the number in each.

Step 3 Practice and Problem Solving



15-20 min

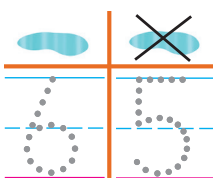
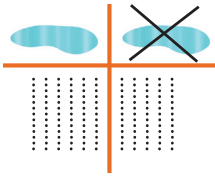
Interactive Practice

You may opt to have students complete automatically scored practice items online.

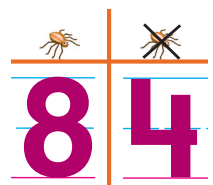
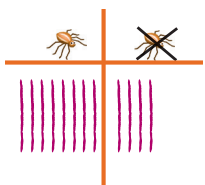
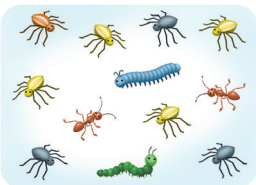
Name _____

Guided Practice

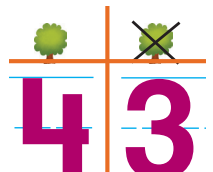
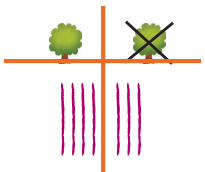
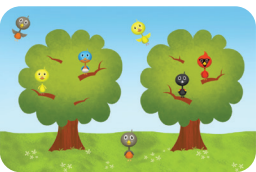
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Directions Vocabulary Have students draw tally marks in the chart as they count the animals that are in each listed **category** and then write the numbers to tell how many in the other chart. **Say:** ★ How many birds are in the pond? How many birds are NOT in the pond? ⚡ How many bugs have 8 legs? How many bugs do NOT have 8 legs? ⚡ How many birds are in trees? How many birds are NOT in trees?

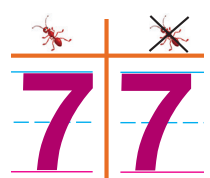
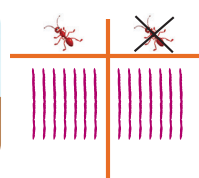
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Lesson 3-3 147

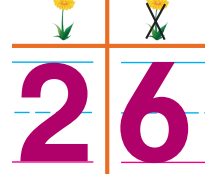
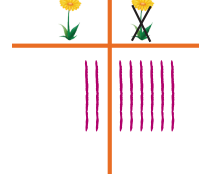
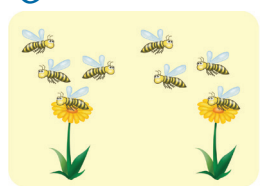
Practice and Problem Solving



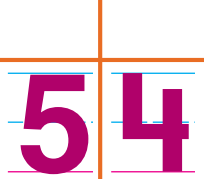
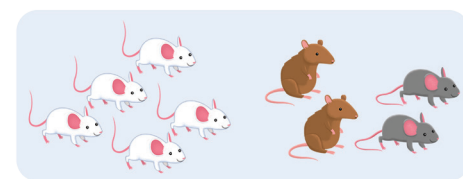
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5



6



The mice on the left are white. The other mice are NOT white. Check students' drawings.

Directions Have students draw tally marks in the chart as they count the animals that are in each category and then write the numbers to tell how many in the other chart. **Say:** ⚡ How many are tiny? How many are NOT tiny? ⚡ How many are on the flowers? How many are NOT on the flowers? ⚡ **Higher Order Thinking** The mice are sorted into 2 categories. How are the mice on the left different than the mice on the right? Draw a picture in the chart to show the categories and then write the numbers to tell how many mice are in each category.

148 Lesson 3-3

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Guided Practice



Error Intervention Item 1

If students are missing creatures as they count, **then** have them mark the creatures they have counted or cover each with a counter.

ELL English Language Learners

Items 1-3 Connect to students' experiences. Students may benefit from a discussion of different contexts in this lesson to help them become familiar with the non-math words that are used as categories. For example, ask students about any bugs they know, define *pond*, and ask students about their experiences with trees.

Practice and Problem Solving

Item 6 Generalize Ask: What are the different ways these mice could have been classified? [Answers will vary.] Discuss students' work, highlighting that even if different categories are chosen, the steps used to classify and count are the same. Remind students that using a counter and removing it after it has been counted or marking the items already counted with a crayon are effective ways to ensure all items in each category are counted and only counted once.

ETP Quick Check



✓ Check marks indicate items for prescribing differentiation. Item 4: up to 2 points. Item 5: up to 3 points. The online Quick Check is auto scored and auto prescribes differentiation.

Differentiation Library **DL**

- Additional Differentiation Library resources are described at the start of this topic.
- Differentiation resources that support diverse learning styles are online and in the Differentiation Library Teacher's Guide.

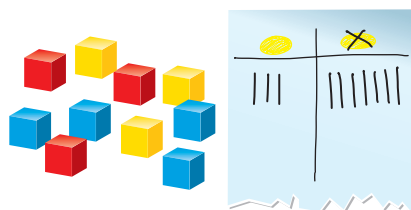
0-3 points: Intervention Activity or Reteach to Build Understanding Activity

4-5 points: Enrichment Activity

In addition, **English language learners** may benefit from the Build Mathematical Literacy Activity.

Intervention Activity

Materials Cubes (5 red, 5 blue, 5 yellow); red, blue, and yellow markers (1 of each per student)



- Provide pencils and paper and ask students to draw a chart. Place a group of cubes in random order in front of the students: 3 red, 4 blue, and 3 yellow. I want to classify these cubes into two groups: yellow and NOT yellow. How can you mark how many of each category we have? [Tally marks] Use the yellow marker to draw a yellow spot at the top of one side of your chart. What is this category? [Yellow] Draw a yellow spot at the top of the other side of your chart and then mark an X over it. What is this category? [NOT yellow]
- When I point to each cube, draw a tally mark in the correct category. Start by pointing to a red cube. Which category does this cube belong to? [NOT yellow] Students then make a tally mark in the NOT yellow column on the chart. Point to each cube until they have all been marked on the charts. How can you find how many are in each category? [Count the tally marks.] How many yellow cubes? [3] How many NOT yellow? [7]
- Repeat with different numbers of cubes and different categories: red/NOT red and blue/NOT blue.

Video Tutorial Available at Savvas Realize®

Students can access this video anytime to reinforce lesson content.

Another Look Video

Additional Practice

Printable or autoscored at Savvas Realize®

Name _____

Count the Number of Objects in Each Category

HOME ACTIVITY Show your child a group of up to 10 objects that are different in at least one way. For example, show 4 forks, 2 tablespoons, and 3 teaspoons (arranged in random order). Ask your child to sort the utensils into categories: spoons and NOT spoons. Have your child write numbers for each category. Repeat with other categories.

Additional Practice 3-3

Another Look!

Directions Say: You can use ten-frames to sort objects into categories and count them. Circle each animal that has stripes. Draw a red counter in the ten-frame for every circle. Mark an X on each animal that does NOT have stripes. Draw a yellow counter in the other ten-frame for every X. Write the numbers to tell how many. ★ Have students use the ten-frames and write the numbers for the following categories: 4 legs and NOT 4 legs.

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2

3

Directions 2 Have students circle animals that have wings and put red counters in the ten-frame. Have them mark an X on animals that do NOT have wings and put yellow counters in the ten-frame. Then have them write the numbers to tell how many. **Higher Order Thinking Say:** The vet sees 12 animals in a day. Some are puppies and some are NOT puppies. One more puppy is going to be seen today. Put counters in the ten-frames to show the puppies the vet will see. Do the same for the animals that are NOT puppies. Write the numbers to tell how many.

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