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Let's Talk Math
Spanish
Kindergarten

This sample includes the following:

Teacher's Guide Cover (1 page)
Teacher's Guide Table of Contents (1 page)
How to Use This Resource Pages (4 pages)
Sample Lessons, Task Cards, and Student Pages
- Piensa en cantidades (4 pages)
- Elabora y critica argumentos (4 pages)
- Matematiza la situación (4 pages)
- Usa herramientas estratégicamente (4 pages)
- Analiza la estructura (4 pages)
- Generaliza tu razonamiento (4 pages)

To **Create** a **World** in which
Children Love to **Learn!**

Let's Talk Math

TEACHER'S GUIDE

Support Videos Inside!

TCM | Teacher Created Materials

Table of Contents

Introduction

How to Use This Resource

Teacher Notes for the Tasks

Appendixes

How to Use This Resource

Components

Teacher's Guide

The *Let's Talk Math* Teacher's Guide is an informative, detailed guide that facilitates implementation of this supplemental resource. Every lesson includes a common student misconception for the particular task as well as differentiated support for both scaffolding and extension. Outlined in each lesson are tiered vocabulary lists for language support that might prevent access to the mathematics.

Task Cards
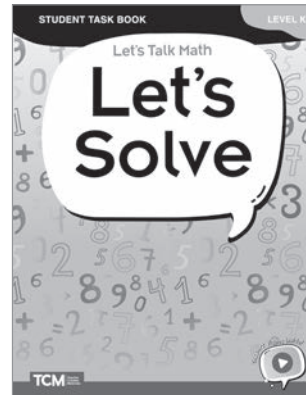
There are 60 full-color, double-sided cards for small-group lessons and workstations. Each card clearly lists one task on each side and one extension opportunity per task. The cards are color-coded based on the mathematical practices/processes and include icons to indicate the mathematical domains.
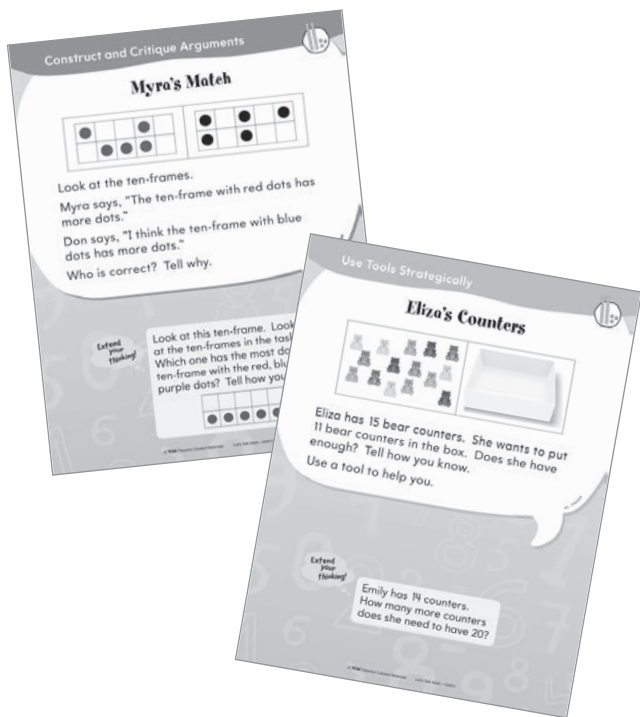
Let's Solve: Student Task Book

The 120 student tasks are provided in an easy-to-use book with perforated pages for easy distribution to students or for use as students' personal math journals. Each student page includes an opportunity for students to reflect and write.
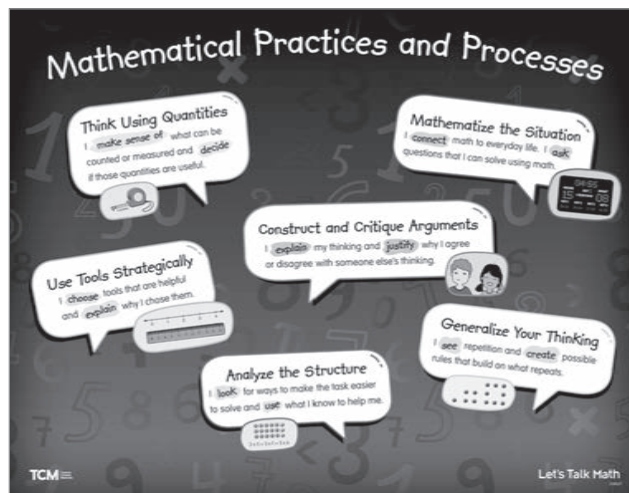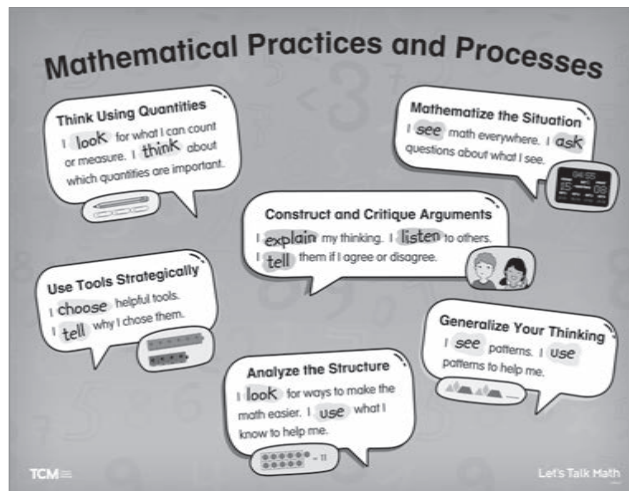
Poster

A two-sided, full-color poster lists the Standards for Mathematical Practices/Processes in student-friendly language. One side is for grades K–1, and the other side is for grades 2–5.

How to Use This Resource (cont.)

Digital Resources

Let's Talk Math features a wealth of digital resources. These digital resources offer greater flexibility and accessibility than the print resources alone.

- Digital versions of **Task Cards, Student Task Book** pages, and the **poster** can be used on interactive whiteboards, for virtual sessions, in LMS platforms, and more!

- Assessment tools such as **Observation Protocols**, **Monitoring Checklists**, and **Student Reflection** and **Feedback** templates help teachers and students track progress.

- **Classroom exemplars** bring *Let's Talk Math* to life and inform instruction and assessment.

- **Anchor charts** can be displayed as reminders of the routines for the mathematical practices/processes.

- **Tier 3 vocabulary word cards** can be printed and used to prepare students for math tasks.
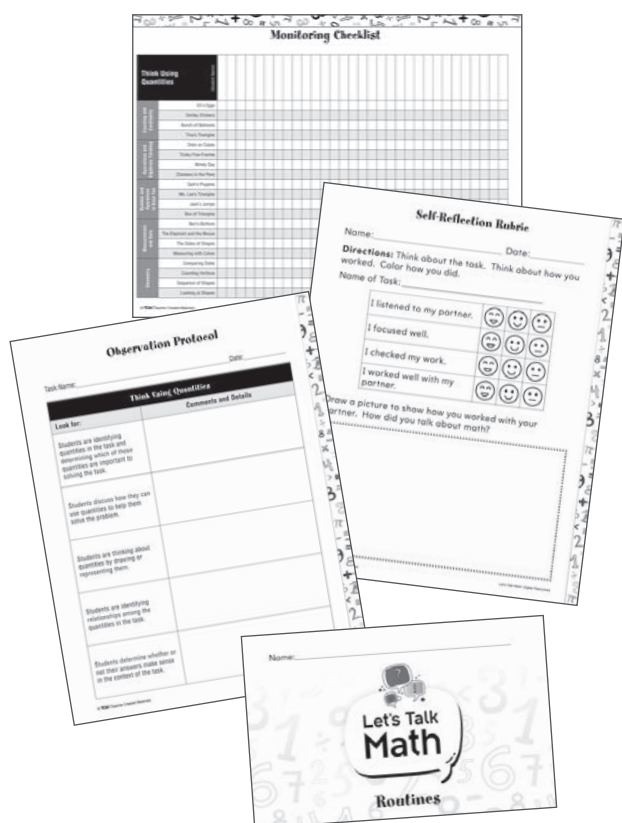
Support Videos

Don't miss the *Let's Talk Math* support videos for teachers and students.

- The **teacher videos** feature authors Kit Norris and Dr. Hilary Kreisberg discussing the routines, and include examples from classrooms and tips for implementation.

- Animated **student videos** explain the mathematical processes/practices and make concepts accessible with engaging examples.

  - Think Using Quantities
  - Construct and Critique Arguments
  - Mathematize the Situation
  - Use Tools Strategically
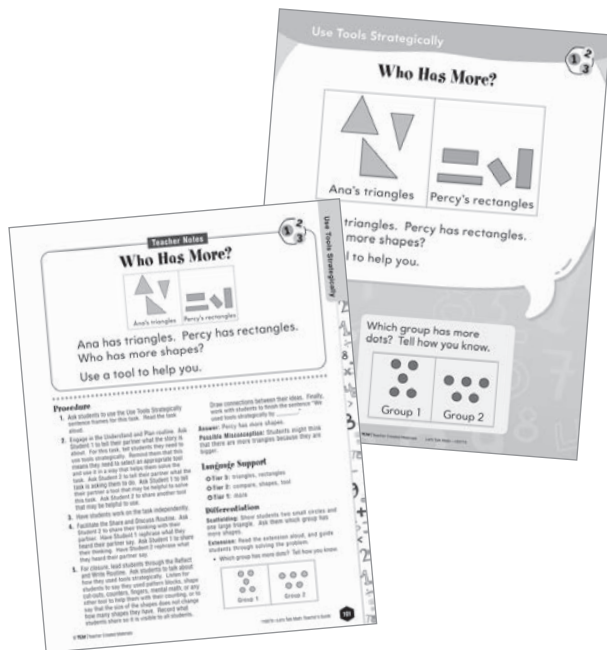 - Analyze the Structure
  - Generalize Your Thinking

Support Video!

tcmpub.digital/lets-talk-math/videos
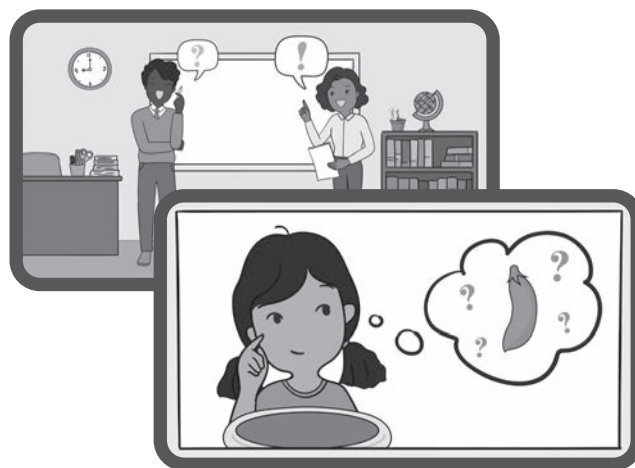
How to Use This Resource *(cont.)*

Tasks

This kit contains 120 tasks. There are 20 tasks for each of the six identified mathematical practices/processes (see Figure 5). The 20 tasks for each practice/process include four tasks per content domain (see Figure 6). The tasks are provided in three formats to give teachers flexibility in deciding how to use them with students.

- Full-color student reproducibles in the *Let's Solve: Student Task Book.* Each student activity sheet has the task and extension activities on one side and the Reflect and Write routine on the other. These student-facing pages can be used in small groups for students to record their thinking and reflections. Students can alternatively complete the reproducibles during workstation work with partners and submit them for evaluation and review by the teacher. (The *Let's Solve: Student Task Book* can be purchased as student consumables. Contact Teacher Created Materials at 800-858-7339 for more information or to order.)

- Full-color cards (one set per kit) for use in small-group lessons or by students in math workstations. The tasks are organized by color to help with both management and student connections (see Figure 5).

- Full-color PDFs in the Digital Resources (see page 168 for more information) for whole-class projection or to share with students for work in class or at home.

Practice/Process	Color
Think Using Quantities	blue
Construct and Critique Arguments	orange
Mathematize the Situation	red
Use Tools Strategically	green
Analyze the Structure	purple
Generalize Your Thinking	yellow

Figure 5—Task Card Colors

The student tasks (and Teacher Notes) also include visual icons to identify the mathematical domains of the tasks. These icons are included in all three versions of the cards as well as on the teacher notes pages for ease of teacher and student use and management. See Figure 6 for the icons used throughout the resource.

Mathematical Domain	Icon
Counting and Cardinality	
Number and Operations in Base Ten	
Operations and Algebraic Thinking	
Measurement and Data	
Geometry	

Figure 6—Domain Icons

Teacher Notes Table of Contents

Each lesson includes a **possible misconception** students might have when working on the task. Knowing about these ahead of time will help you prepare to support students.

Tiered vocabulary from the task is highlighted along with other key **language supports**.

Scaffolding suggestions are provided to use with students who have demonstrated a need for additional support as they work on the task.

To further challenge students, an **extension** is provided for each task. These provide opportunities for students to apply their critical thinking to related scenarios. When computable answers are possible, they are provided in parentheses.
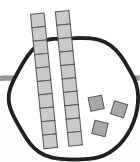
Jack's Jumps
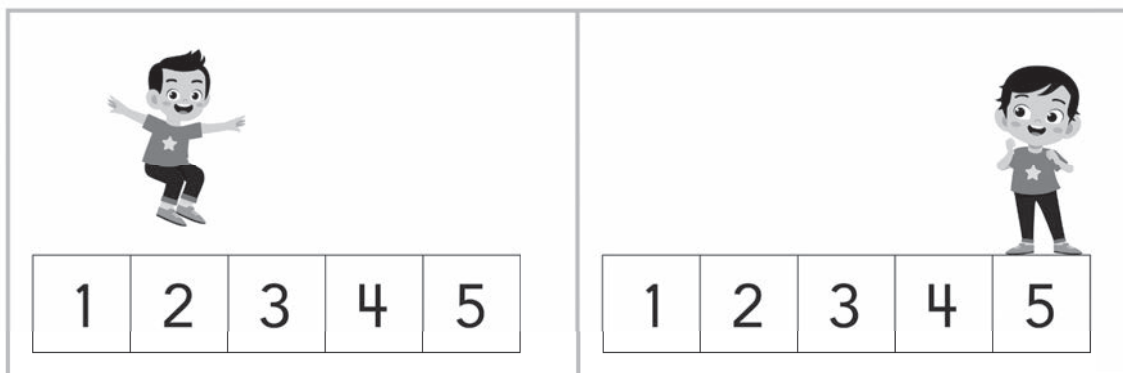
Jack starts at 2. He jumps. He lands on 5. How many units did he jump?

Procedure

1. Ask students to use the Think Using Quantities sentence frames for this task. Read the task aloud.

2. Engage in the Understand and Plan Routine. Ask Student 1 to tell their partner what the story is about. For this task, tell students they need to think about quantities. Remind them that quantities are groups of objects that can be counted or measured. Ask Student 2 to tell their partner about one quantity they see in this task. Ask Student 1 to tell their partner about a different quantity they see in the task. Ask Student 2 to tell their partner what the task is asking them to do.

3. Have students work on the task independently.

4. Facilitate the Share and Discuss routine. Ask Student 2 to share their thinking with their partner. Have Student 1 rephrase what they heard their partner say. Ask Student 1 to share their thinking. Have Student 2 rephrase what they heard their partner say.

5. For closure, lead students through the Reflect and Write routine. Ask students to talk about how they used quantities. Listen for students to say that 2 + 3 = 5 or 5 − 2 = 3. Record what students share so it is visible to all students. Draw connections between their ideas. Finally, work with students to finish the sentence, "We used quantities to _____."

Answer: Jack jumped 3 units.

Possible Misconception: Students may simply look at the number track and state the answer is 5, disregarding the fact that Jack started on 2.

Language Support

✪ **Tier 3:** units

✪ **Tier 2:** jumps, lands

Differentiation

Scaffolding: Place a number track on the classroom floor (large numbers on 8.5" x 11" sheets of paper). Ask students to act out Jack's jumps.

Extension: Read the extension aloud, and guide students through solving the problem.

- Now, Jack starts at 5. How many units must Jack jump to get to 10? (5 units)
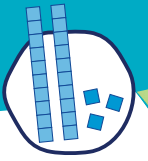
Los saltos de Jack
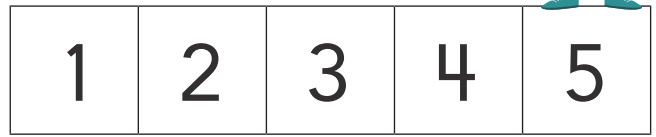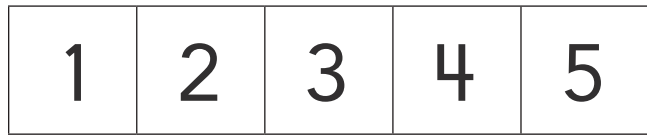
Jack comienza en el 2. Salta. Cae en el 5. ¿Cuántas unidades saltó?

¡Amplía tu razonamiento!

Ahora, Jack comienza en el 5. ¿Cuántas unidades debe saltar para llegar al 10?

Los saltos de Jack

Jack comienza en el 2. Salta. Cae en el 5.
¿Cuántas unidades saltó?

Piensa en cantidades

Reflexiona y escribe

_____

- - - - - - - - - - -

Escribe o dibuja: Usamos cantidades para _____

_____

- -

_____

_____

- -

_____

¡Amplía tu razonamiento!

Ahora, Jack comienza en el 5. ¿Cuántas unidades debe saltar para llegar al 10?

Recognizing Rectangles

Look at the shapes.

Sal says, "I see 3 rectangles."

Abby says, "I see 2 rectangles and 2 triangles."

Who is correct? Tell why.

Procedure

1. Ask students to use the Construct and Critique Arguments sentence frames for this task. Read the task aloud.

2. Engage in the Understand and Plan routine. Ask Student 1 to tell their partner what the story is about. For this task, tell students they need to construct and critique arguments. Remind them that this means they need to explain their thinking or tell about someone else's thinking. Ask Student 2 to tell their partner what 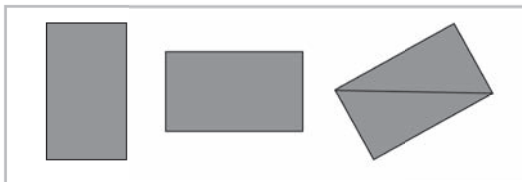might be important in the task. Ask Student 1 to share something else that might be important. Ask Student 2 to tell their partner what the task is asking them to do.

3. Have students work on the task independently.

4. Facilitate the Share and Discuss routine. Ask Student 2 to share their thinking with their partner. Have Student 1 rephrase what they heard their partner say. Ask Student 1 to share their thinking. Have Student 2 rephrase what they heard their partner say.

5. For closure, lead students through the Reflect and Write routine. Ask students to talk about how they constructed or critiqued arguments. Listen for students to say that they agree with Sal or Abby and to justify their thinking with evidence. Record what students share so it is visible to all students. Draw connections between their ideas. Finally, work with students

to finish the sentence "We constructed and critiqued arguments by _____."

Answer: Either student could be considered correct.

Possible Misconception: Students may not recognize that two triangles placed together can form a rectangle.

Language Support

✪ **Tier 3:** rectangles, triangles

✪ **Tier 2:** shapes

Differentiation

Scaffolding: Provide students with sentence frames to help structure their thinking. For example: *I agree with _____ because _____* or *I disagree with _____ because _____.*

Extension: Read the extension aloud, and guide students through solving the problem.

- How many different shapes do you see? (Answers may include triangle, rhombus, trapezoid, and hexagon.)
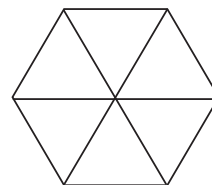
Reconocer rectángulos
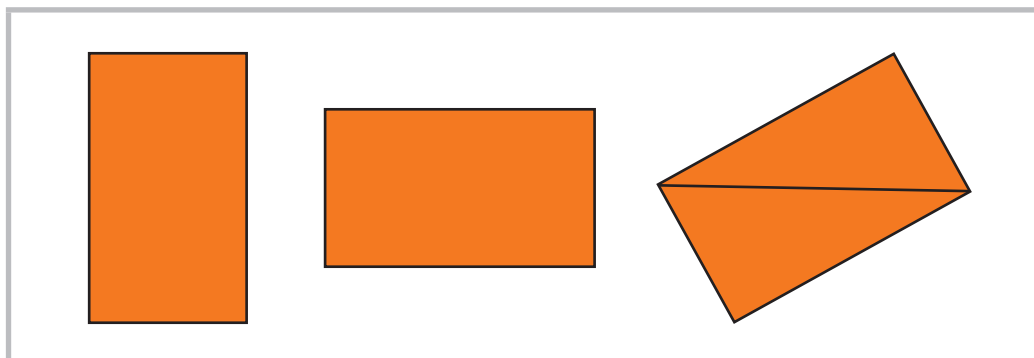
Mira las figuras.

Sal dice: "Veo 3 rectángulos".

Abby dice: "Veo 2 rectángulos y 2 triángulos".

¿Quién tiene razón? Di por qué.

¡Amplía tu razonamiento!
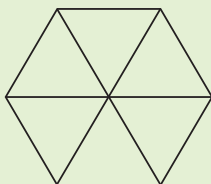
¿Cuántas figuras diferentes ves?

Reconocer rectángulos
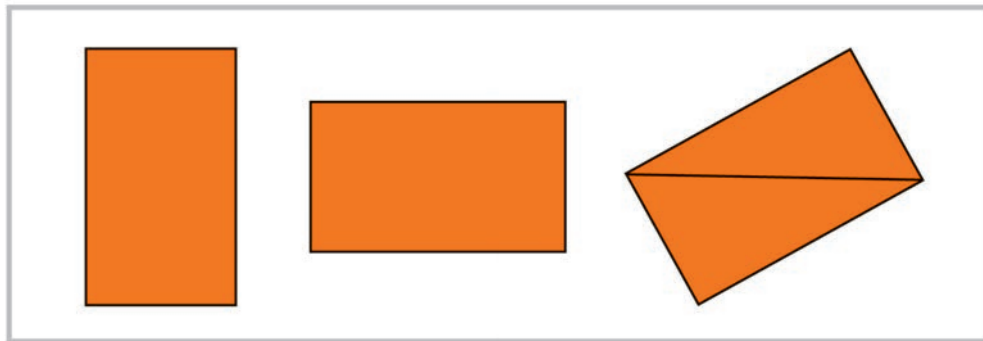
Mira las figuras.

Sal dice: "Veo 3 rectángulos".

Abby dice: "Veo 2 rectángulos y 2 triángulos".

¿Quién tiene razón? Di por qué.

Elabora y critica argumentos

Reflexiona y escribe

Escribe o dibuja: Para elaborar y criticar argumentos,

_____

- -

_____

- -

_____

¡Amplía tu razonamiento!
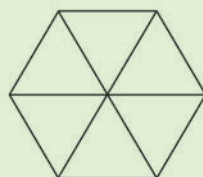
¿Cuántas figuras diferentes ves?
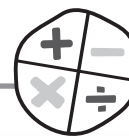
Walking the Dogs

Dogs like to go for walks. What do you notice?

Procedure

1. Ask students to use the Mathematize the Situation sentence frames for this task. Read the task aloud, and ask students to look at the picture(s).

2. Engage in the Understand and Plan routine. Ask Student 1 to tell their partner what they see. Ask Student 2 to share what they see. Tell students they need to mathematize the situation. Remind them this means they need to relate math to everyday life and ask questions about the picture(s). Then, they will use their math skills to find the answer. Ask Student 2 to tell their partner a math question they are wondering. Ask Student 1 to share a different math question.

3. Have students work on their selected questions.

4. Facilitate the Share and Discuss routine. Ask Student 2 to share their thinking with their partner. Have Student 1 rephrase what they heard their partner say. Ask Student 1 to share their thinking. Have Student 2 rephrase what they heard their partner say.

5. For closure, lead students through the Reflect and Write routine. Ask students to talk about how they mathematized the situation. Listen for students to discuss the total number of dogs being walked or compare the number of dogs of one color to the number of dogs of another color. Record what students share so it is visible to all students. Draw connections between their ideas. Finally, work with students to finish the sentence "We mathematized the situation by _____."

Answer: Answers will vary based on questions asked.

Possible Misconception: Students may want to explore questions that are not quantifiable, such as, "Why is the big dog holding his leash?" Encourage students to think of questions that can be answered using mathematics. For example, "How many leashes are in the picture?"

Helpful Information

If students struggle to identify mathematical questions, prompt thinking with one of the following math details from the picture(s). This list is not exhaustive.

- There are 4 dogs with light brown fur.
- There are more small dogs than big dogs.
- There are 9 dog tails in this picture.
- There are 40 legs in the picture.

Language Support

○ **Tier 1:** dogs, walks

Differentiation

Scaffolding: Present students with objects to count. Rearrange the objects, and ask them to tell you how many objects they see. Look for students who state the same number that they had just said as compared to those students who need to count again.

**Extension:** Read the extension aloud, and guide students through solving the problem.

- 3 more dogs joined all the dogs. How many dogs are there now? (12 dogs)

Paseo de perros

A los perros les gusta salir a dar un paseo.
¿Qué notas?

Nombre: _____ Compañero:_____

Paseo de perros

A los perros les gusta salir a dar un paseo.
¿Qué notas?

_____

_____

_____

_____

_____

_____

_____

_____

Matematiza la situación

Reflexiona y escribe

Escribe o dibuja: Para matematizar la situación,

_____

_ _

_____

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_____

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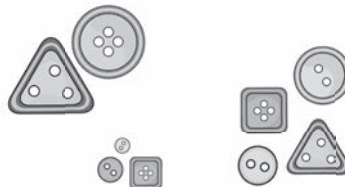
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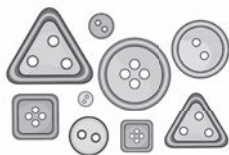
Bill's Buttons

Before Bill sorts | Sorted by size

Bill has some buttons. He sorts them by size. Think of a different way to sort the buttons.

Use a tool to help you.

Procedure

1. Ask students to use the Use Tools Strategically sentence frames for this task. Read the task aloud.

2. Engage in the Understand and Plan routine. Ask Student 1 to tell their partner what the story is about. For this task, tell students they need to use tools strategically. Remind them that this means they need to select an appropriate tool and use it in a way that helps them solve the task. Ask Student 2 to tell their partner what the task is asking them to do. Ask Student 1 to tell their partner a tool that may be helpful to solve this task. Ask Student 2 to share another tool that may be helpful to use.

3. Have students work on the task independently.

4. Facilitate the Share and Discuss routine. Ask Student 2 to share their thinking with their partner. Have Student 1 rephrase what they heard their partner say. Ask Student 1 to share their thinking. Have Student 2 rephrase what they heard their partner say.

5. For closure, lead students through the Reflect and Write routine. Ask students to talk about how they used tools strategically. Listen for students to say they used counters, buttons, paper and pencil, shape cutouts, observations, or any other tool to help them act out the problem or represent the problem. Record what students share so it is visible to all students.

Draw connections between their ideas. Finally, work with students to finish the sentence "We used tools strategically by _____."

Answer: Students can sort the buttons by colors, shapes, or number of holes.

Possible Misconception: Students may place all the buttons in one pile and categorize the pile as "buttons that have color," not recognizing that sorting requires at least two different groupings.

Language Support

✪ **Tier 2:** sorts, size, tool, buttons

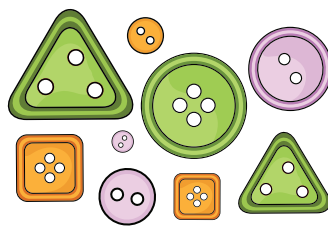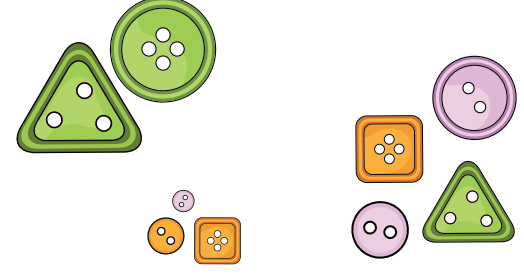✪ **Tier 1:** different

Differentiation

Scaffolding: Provide students with a smaller set of objects to sort. Ask them to sort the objects according to one attribute.

Extension: Read the extension aloud, and guide students through solving the problem.

• Find objects in the room to sort. Sort them. How did you sort them?

Los botones de Bill

Antes de que Bill ordene	Ordenado por tamaño

Bill tiene algunos botones. Los ordena por tamaño. Piensa en una manera diferente de ordenar los botones.

Usa una herramienta como ayuda.

¡Amplía tu razonamiento!

Halla objetos para ordenar en el salón. Ordénalos. ¿Cómo lo hiciste?

Los botones de Bill

Antes de que Bill ordene	Ordenado por tamaño

Bill tiene algunos botones. Los ordena por tamaño. Piensa en una manera diferente de ordenar los botones.

Usa herramientas estratégicamente

Reflexiona y escribe

Escribe o dibuja: Para usar herramientas estratégicamente,
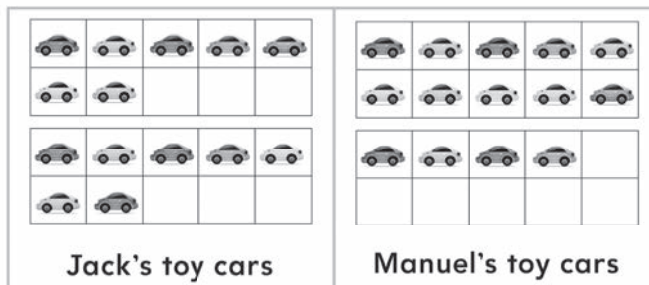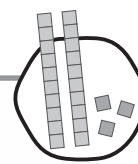
_____

_ _

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_____

¡Amplía tu razonamiento!

Halla objetos para ordenar en el salón. Ordénalos. ¿Cómo lo hiciste?

Teacher Notes

Toy Cars

Jack's toy cars	Manuel's toy cars

Jack has toy cars. Manuel has toy cars. Who has more? Tell how you know.

Procedure

1. Ask students to use the Analyze the Structure sentence frames for this task. Read the task aloud.

2. Engage in the Understand and Plan routine. Ask Student 1 to tell their partner what the story is about. For this task, tell students they need to analyze the structure. Remind them that this means they need to look for ways to make the math easier and think about how they might use what they know to help them solve. Ask Student 2 to tell their partner what the task is asking them to do. Ask Student 1 to share how they might use what they know to help them. Ask Student 2 to share how they might use what they know to help them.

3. Have students work on the task independently.

4. Facilitate the Share and Discuss routine. Ask Student 2 to share their thinking with their partner. Have Student 1 rephrase what they heard their partner say. Ask Student 1 to share their thinking. Have Student 2 rephrase what they heard their partner say.

5. For closure, lead students through the Reflect and Write routine. Ask students to talk about how they analyzed the structure. Listen for students to say that the quantities are the same but the arrangements are different. Some students may notice that the number of empty spaces is the same for Jack's and Manuel's cars, so they must have the same quantity of cars. Students may also say that 7 + 7 is the same as 10 + 4. Record what students share so

it is visible to all students. Draw connections between their ideas. Finally, work with students to finish the sentence "We analyzed the structure by _____."

Answer: They both have 14 toy cars.

Possible Misconception: Some students might not have number conservation and may think that a quantity can only be represented one way. Others might think that Jack has more toy cars because the cars are arranged on all 4 rows rather than just 3.

Language Support

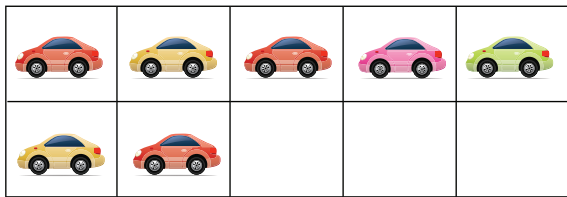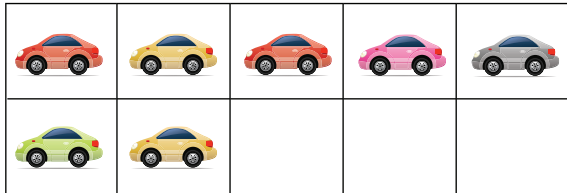✪ **Tier 1:** toy cars, more

Differentiation

Scaffolding: Provide students with counters and ten-frames, and ask them to build Jack's and Manuel's quantities. Then, ask them to tell you who has more and how they know.

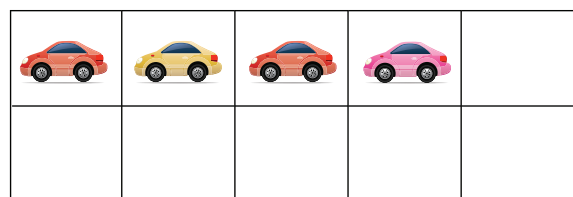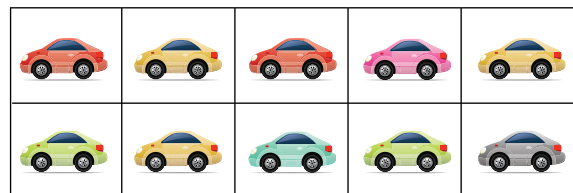**Extension:** Read the extension aloud, and guide students through solving the problem.

- How many toy cars do Jack and Manuel have altogether? (28 toy cars)

Carros de juguetes
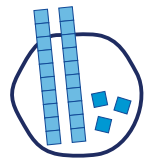

Carros de juguete de Jack

Carros de juguete de Manuel

Jack tiene carros de juguete. Manuel tiene carros de juguete. ¿Quién tiene más?
Di cómo lo sabes.

¡Amplía tu razonamiento!

¿Cuántos carros de juguete tienen Jack y Manuel en total?

Nombre: _____ Compañero:_____

Carros de juguetes

Carros de juguete de Jack	**Carros de juguete de Manuel**

Jack tiene carros de juguete. Manuel tiene carros de juguete. ¿Quién tiene más?
Di cómo lo sabes.

Analiza la estructura

Reflexiona y escribe

_____

- - - - -

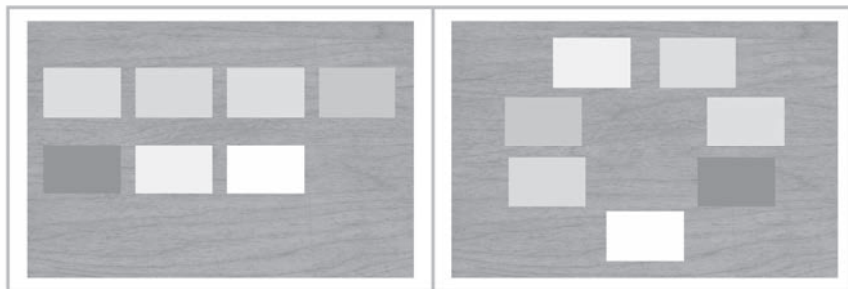**Escribe o dibuja:** Para analizar la estructura, _____

_____

- -

_____

_____

- -

_____

¡Amplía tu razonamiento!

¿Cuántos carros de juguete tienen Jack y Manuel en total?

Teacher Notes

Nadia's Note Cards

Nadia has some cards. Count them. She moves them around. How many cards does she have now? Tell how you know.

Procedure

1. Ask students to use the Generalize Your Thinking sentence frames for this task. Read the task aloud.

2. Engage in the Understand and Plan routine. Ask Student 1 to tell their partner what the story is about. For this task, tell students they need to generalize their thinking. Remind them that this means they need to look for what is staying the same and what is changing. Ask Student 2 to tell their partner what stays the same in the task. Ask Student 1 to share what changes in the task. Ask Student 2 to tell their partner what the task is asking them to do.

3. Have students work on the task independently.

4. Facilitate the Share and Discuss routine. Ask Student 2 to share their thinking with their partner. Have Student 1 rephrase what they heard their partner say. Ask Student 1 to share their thinking. Have Student 2 rephrase what they heard their partner say.

5. For closure, lead students through the Reflect and Write routine. Ask students to talk about how they generalized their thinking. Listen for students to say that the number of cards remains unchanged because none were added or taken away. Record what students share so it is visible to all students. Draw connections between their ideas. Finally, work with students to finish the sentence "We generalized our thinking by _____."

Answer: Nadia has 7 cards, which is the same number of cards as she had before.

Possible Misconception: Some students may think they have to count the cards in the circle, even though she simply rearranged the cards so the total remains the same as what was there before. Students who do count the cards in the circle may count the same card twice because it is more difficult to determine when to stop counting when objects are arranged in a circle.

Language Support

✪ **Tier 2:** cards, count, moves

Differentiation

Scaffolding: Provide students with sticky notes or index cards to represent the cards in the task. Ask students to arrange them the two ways Nadia did.

Extension: Read the extension aloud, and guide students through solving the problem.

- How is 4 different from 5? How is 9 different than 10? (4 is 1 less than 5; 9 is 1 less than 10)

Las tarjetas de apuntes de Nadia
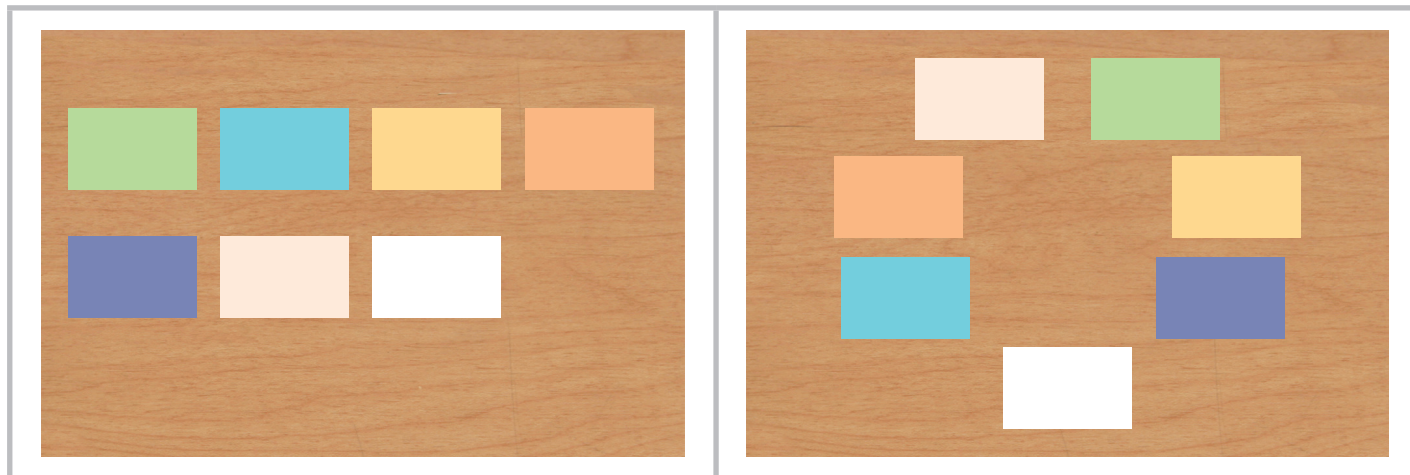
Nadia tiene algunas tarjetas. Cuéntalas. Las vuelve a ordenar. ¿Cuántas tarjetas tiene ahora? Di cómo lo sabes.

¡Amplía tu razonamiento!

¿En qué se diferencia 4 de 5?
¿En qué se diferencia 9 de 10?

Las tarjetas de apuntes de Nadia

Nadia tiene algunas tarjetas. Cuéntalas.
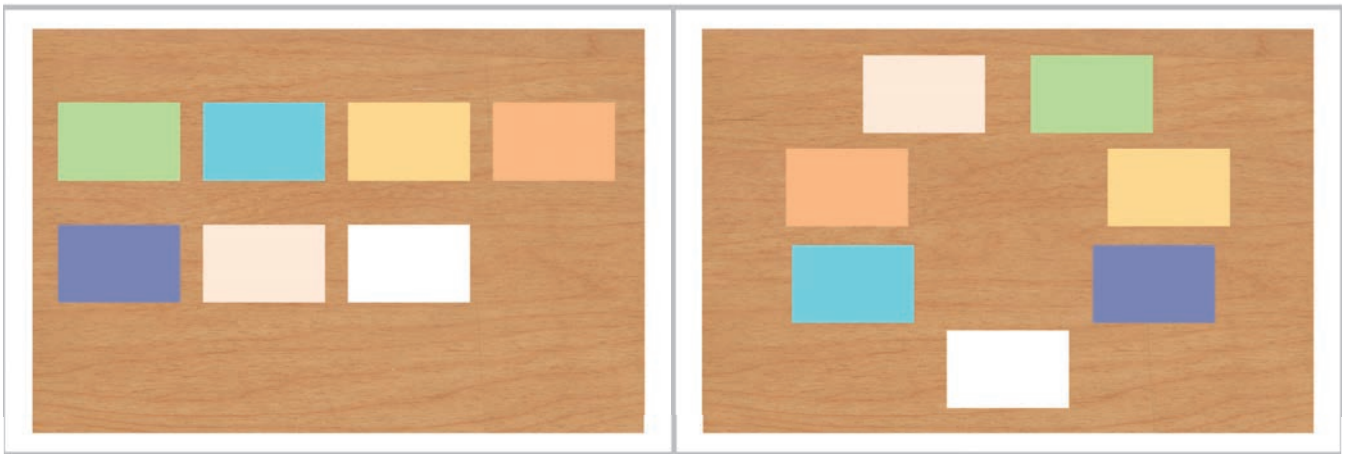Las vuelve a ordenar. ¿Cuántas tarjetas tiene
ahora? Di cómo lo sabes.

Generaliza tu razonamiento

Reflexiona y escribe

Escribe o dibuja: Para generalizar nuestro razonamiento,

_____

_____

_____

_____

_____

¡Amplía tu razonamiento!

¿En qué se diferencia 4 de 5?
¿En qué se diferencia 9 de 10?