

## Whole class

In this lesson, students create groups of objects to represent one to five.

### Step 1 Preparing the lesson

You will need:

- xylophone and mallet (or use containers as drums)
- cymbals, castanets, or another instrument (alternatively, containers can be used as drums)

Each student will need:

- Student Journal 1.1a and 1.1b
- 5 Unifix® cubes
- scissors and glue

### Step 2 Starting the lesson

Teach the class the following number rhyme. Model the rhyme using the fingers of one hand, and use body movements when the students are confident with the counting.

*One, one, rabbit run.* (Run on the spot.)

*Two, two, kangaroo.* (Jump twice.)

*Three, three, busy bee.* (Wave hand three times.)

*Four, four, lion's roar.* (Open mouth with a whisper roar.)

*Five, five, I can jive!* (Wiggle and dance.)

### Step 3 Teaching the lesson

Slowly tap a bar on the xylophone three times. Say, *As I tap, you listen to the sounds and clap that many times. Ready?* Tap twice. Then say, *Listen and count to repeat my taps with your claps.* Tap for one, three, four, and five at random. Invite a volunteer to perform the taps on the xylophone. Repeat with another instrument, and have the students snap their fingers, clap, or pretend to beat a drum (**SMP6**).

Ask each student to take five cubes and then sit in a large circle with the other students. Say, *I will show and say a number, and you put that many cubes on your fingers. Hold your hand out in front of you. Ready?* Show two cubes. Repeat with one, three, four, and five at random. After the students show several numbers of cubes, say, *Put one cube on your finger. Now, put another one on. Count one, two. Now put another cube on. Count one, two, three.* Continue for four and five.

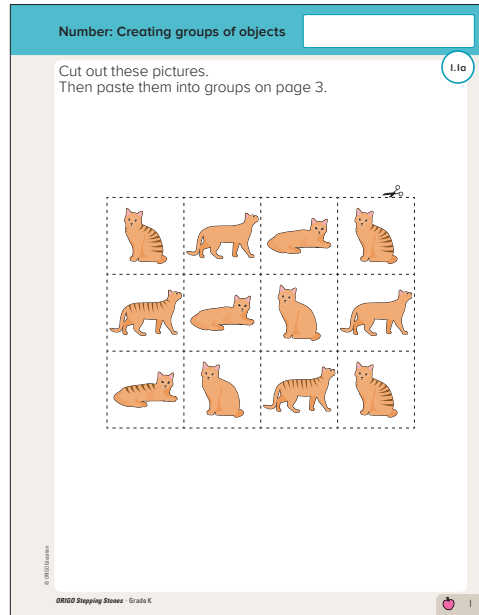
Direct the students to cut out the cats on Student Journal 1.1a (pink apple). Explain that they are going to paste the cats into groups on Student Journal 1.1b (purple apple). They are creating groups rather than sorting, so they do not need to find the cats with common characteristics. For example, say to the students that some cats might like to sit along the fence, while others might like to sit high in the tree.

Students do not have to paste all the cats. Make sure they understand what to do, then have them work independently to complete the task.

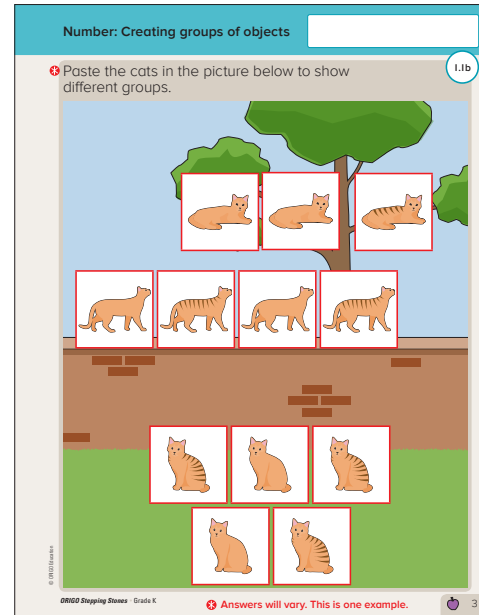
#### ELL

Pair the students with fluent English-speaking students. Encourage them to count aloud to one another. Demonstrate placing the cubes on your fingers for the students.

Student Journal 1.1a, p. 1



Student Journal 1.1b, p. 3



## Step 4 Reflecting on the work

Refer to the different groups the students made on Student Journal 1.1b and discuss the points below:

*How many cats are in the tree?*

*How many cats are on the fence?*

*Who made a group of four cats?*

*Who made a group of three cats?*

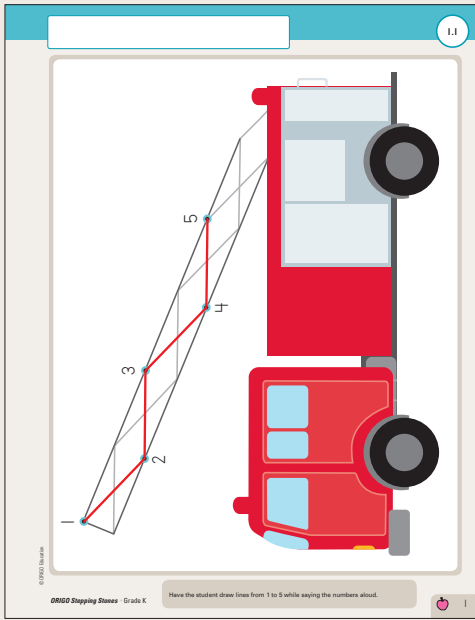
Have students work with another student to compare their pages. Move around the room to observe the confidence with which the students can count. Look for students who correctly associate one number name with each cat.

## Maintaining concepts and skills

### Practice book

This lesson provides one page of ongoing practice that promotes counting skills.

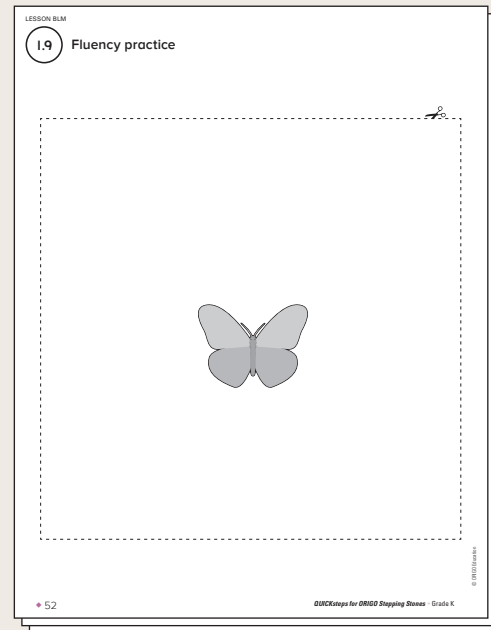
Practice book 1.1, p. 1



### Fluency practice

Make flash cards from Blackline Masters 1.9–1.13. For each card, ask the students to count the objects.

Blackline Masters 1.9–1.13



## Differentiation

### Extra help

Each student will need:

- 5 counters

Place three counters on the table. Ask, *How many counters do you see?* If a student cannot count, help them point to each counter and say the counting words together: "One, two, three." Reinforce this by saying, *Yes, you have three counters.* Repeat with groups of four, and then five counters.

### Extra practice

You will need:

- access to an outdoor area or large room

Each student will need:

- 5 counters

Do this activity outside or in a large room. Say, *I will say a rhyme and you act it out with me.*

*Ready? I can walk.* (Take three steps as you say these number names.) *One, two, three. I can walk. Come follow me.*

Repeat, and have the students walk three steps as they copy you. Repeat the rhyme, changing *walk* to a different action each time, such as jump, skip, clap, bend over, or hop.

## Small group activities

### 1. Threading beads

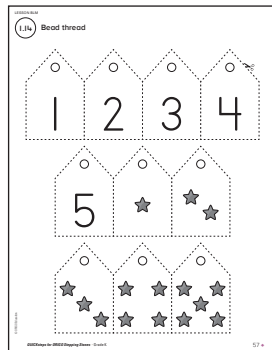
Each student will need:

- 1 set of threading cards from Blackline Master 1.14
- at least 5 beads
- shoelace with a large knot tied at one end

Each student takes a shoelace, threads it through a card, then threads the matching number of beads onto the shoelace.

The students continue threading until all the cards are used.

Blackline Master 1.14



### 2. Matching quantities

You will need:

- at least 10 resealable plastic bags
- at least 30 star stickers
- at least 30 bear counters

Make two bags with star stickers to represent each of the quantities one, two, three, four, and five.

Organize students into pairs. Have them select a bag, place a bear counter on each star sticker, and then put those counters inside the bag. The students complete matching counters with bags that show one to five, and repeat the matching with the second set of bags. Afterward, the students ask another student to check their matching.

## 1.2 Number: Creating groups of objects to match pictures

### Whole class

In this lesson, students create groups of objects to match a verbal or pictorial quantity of one to five.

### Step 1 Preparing the lesson

You will need:

- 1 large cube showing: two dots, three dots, four dots, four dots, five dots, five dots (*Note:* Retain for use in 1.3.)

Each student will need:

- Student Journal 1.2a and 1.2b
- 5 connecting cubes
- 5 counters
- scissors and glue

### Step 2 Starting the lesson

Invite five students to stand in a row and act as the elephants as you say the following rhyme. Have students move one at a time as you point to them. *Five happy elephants standing in a row. One, two, three, four, five.* (The students swing their arms to and fro.) *Five happy elephants say hello. One, two, three, four, five.* (Arms swing up high to wave hello.) Repeat with different students acting as elephants (one-to-one principle). **(SMP6)**

### Step 3 Teaching the lesson

Have the students sit in a horseshoe shape. Roll the large cube into the middle of the formation. Invite one student to go to the cube and point to each dot rolled. As the student points, say, *Clap every time (Julie) touches a dot on the cube. Let's do that again.* Repeat until at least eight students have had a turn with the cube. **(SMP6)**

Give every student a train of five cubes. As you walk around, say, *When you get your cubes, break them apart and put them on the floor in front of you.* Roll the large cube into the middle of the formation, and have the students put cubes on their fingers to match the number of dots showing on the large cube. Ask different students to roll the large cube and count the dots rolled. Then have everyone put matching cubes on their fingers. Continue until all the students have had a turn rolling the large cube.

Read aloud the instructions at the top of Student Journal 1.2a (orange apple) and 1.2b (blue apple). Make sure students understand that they are to cut out the pockets, select one, and lay it on the pocket of the shirt. They then place the matching number of counters on the opposite side of the shirt. Have the students work independently to complete the activity with the remaining four pockets.

#### ELL

Pair the students with fluent English-speaking students to complete the activity and talk about what they see on the cube and how it matches the quantity on their fingers.

**K.CC.A.1 K.CC.A.2** Rote count forward to 5

**K.CC.B.4 K.CC.B.4a** Count up to 5 items demonstrating the one-to-one principle

**DA** Represent numbers up to 5 using pictures

**Major clusters**

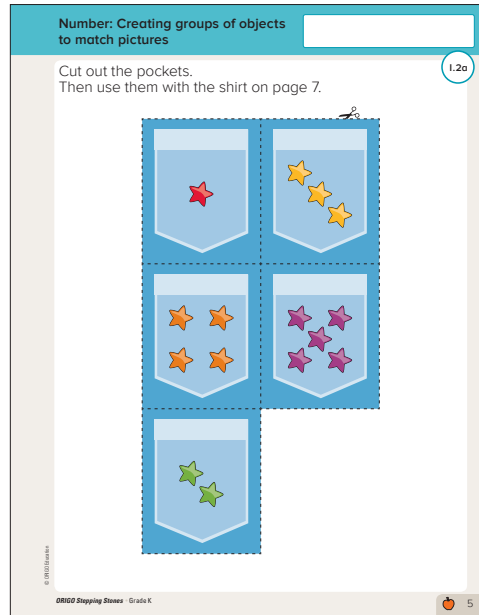
Know number names and the count sequence.

Count to tell the number of objects.

**Supporting cluster**

Representing numbers to 5 pictorially supports the major cluster, K.CC.A (Know number names and the count sequence).

Student Journal 1.2a, p. 5



Student Journal 1.2b, p. 7



## Step 4 Reflecting on the work

Have the students place four counters on the shirt on Student Journal 1.2b.

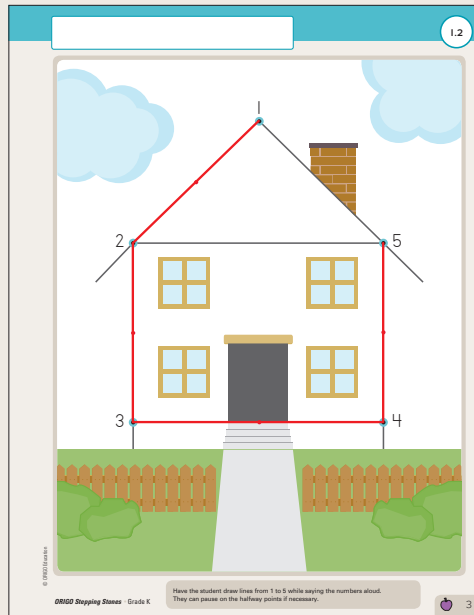
Then say, *Find the pocket to match*. Repeat with the remaining four pockets.

## Maintaining concepts and skills

### Practice book

This lesson provides one page of ongoing practice that promotes counting skills.

Practice book 1.2, p. 3



## Differentiation

### Extra help

Each student will need:

- 5 counters
- 1 ruler

Refer to the ruler. Say, *Let's pretend that this ruler is a magic counting wand*. Make a group of four counters on the table. Then hold the counting wand with the student. Touch each counter with the counting wand as you say the matching number name together. Reinforce that each counter is counted once only, and that the last number tells the total number of counters in the group. Repeat with other groups of counters, and other students.

### Extra practice

You will need:

- domino dot cards and groups-of-three dot cards from *The Number Case*

Each student will need:

- counters

Provide each student with counters. Show one card at a time in random order and ask, *How many dots are there? Tell me the number and make a group to match that number*. Encourage counting to determine how many. Continue until all the cards have a matching group of counters.

Domino dot cards



Groups-of-three dot cards



## Small group activities

### 1. Number game

You will need:

- manila folder
- dot stickers
- 1 cube showing: one star, one star, two stars, two stars, three stars, three stars



Place the stickers so they make a winding path across the folder.

Each student will need:

- 1 different vehicle counter

Organize students into pairs. Have them take turns to roll the cube, say the number, and move their counter that many stickers along the path. Play continues until both students' counters have moved off the board. If time allows, repeat the game several times. Pairs of students can play the online *Fundamentals* game, *Move on Up*.

### 2. Making a matching group

Each pair of students will need:

- picture cards for 1 to 5 from *The Number Case*

Each student will need:

- bear or vehicle counters

Organize students into pairs. One student selects a picture card and then both students work together to make a matching quantity of bears or vehicles. The activity continues until a group has been made to match each picture card. They then ask another student to check their work.

Picture cards





## Whole class

In this lesson, students create groups of pictures to match numerals 1 to 5.

### Step 1 Preparing the lesson

You will need:

- 1 large cube showing: two dots, three dots, four dots, four dots, five dots, five dots (*Note: This cube was used in 1.2.*)
- numeral cards for 3 to 5 from *The Number Case*

Each student will need:

- 5 Unifix® cubes
- scissors and glue
- Student Journal 1.3a and 1.3b

Numeral cards



### Step 2 Starting the lesson

Invite three students to come to the front and stand in line. Say, *Let's all count the students: one, two, three.* Point to each student as everyone counts. Repeat the counting, starting from a different student (order-irrelevance principle). Ask the three students to rearrange themselves, then ask the other students, *Does the number change if the students move to a different space?* Encourage students to explain their answer (**SMP3**). Repeat the activity with a new group of students coming to the front.

### Step 3 Teaching the lesson

Give each student a train of five cubes and have them sit in a large circle. Roll the cube and say, *Look at the cube. Whisper the number to yourself, and put that many cubes on your fingers.* Ask a student to say the number of cubes on their fingers. Repeat several times. (**SMP6**)

Show the numeral card for 4 and say, *Look at this numeral. What is the name of this numeral?* Encourage responses. Then say, *Make a group of that many cubes in front of you. How many cubes are in the group you made?* Allow time for a response. Say, *You have a group of four cubes. Put those four cubes in a different arrangement.* Show the students how to move the cubes around to show another group of four. Repeat, so they make yet another arrangement of four. Ask the students if the number of cubes changes when they are rearranged. (**SMP3**)

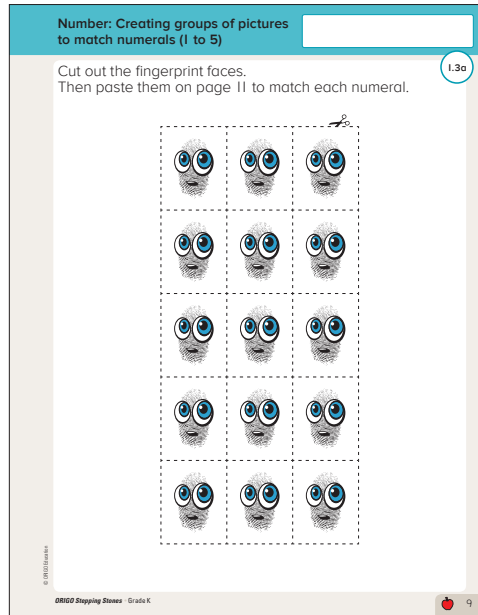
Repeat the activity with the numeral card for 5, and then 3.

Read the instructions at the top of Student Journal 1.3a (red apple) and 1.3b (green apple) with the students. Ensure they understand what they are to do, then have them work independently to complete the task.

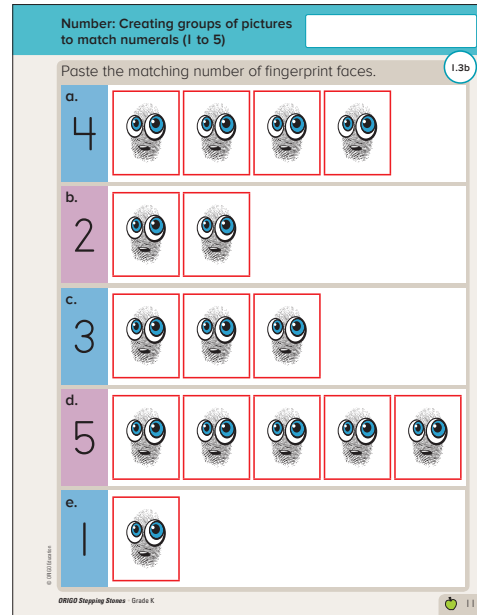
#### ELL

Pair the students with fluent English-speaking students to complete the activity, if necessary. Allow the students to say the number name first in their native language, then in English. Encourage the students to rephrase the thinking of other students in the classroom.

Student Journal 1.3a, p. 9



Student Journal 1.3b, p. 11



## Step 4 Reflecting on the work

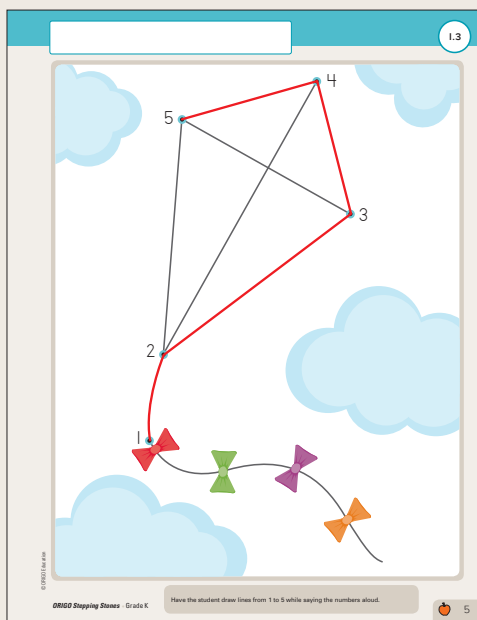
Discuss the students' answers to Student Journal 1.3b. Have students identify each numeral and say how many faces they pasted beside each. Have the students look at the first example. Tell them to compare their solutions with the student next to them. Say, *Raise your hand if you and your neighbor have the same answer.* Ask one student to explain what they did to complete this example. Ask, *If we can move our number faces around, will we still have four faces? How do you know?* (SMP3)

## Maintaining concepts and skills

### Practice book

This lesson provides one page of ongoing practice that promotes counting skills.

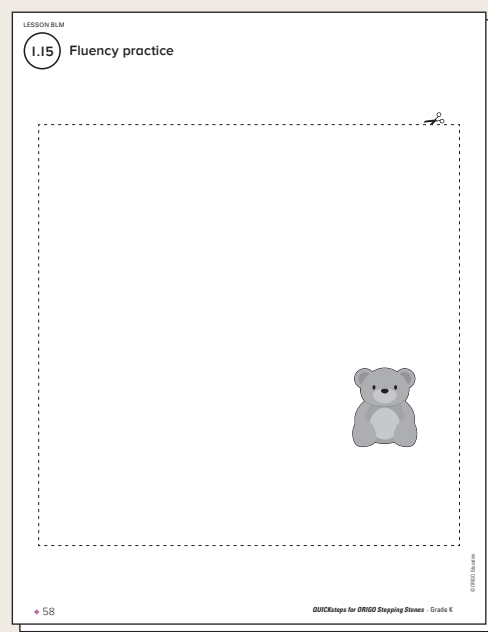
Practice book 1.3 p. 5



### Fluency practice

Make flash cards from Blackline Masters 1.15–1.19. For each card, ask the students to count the objects.

Blackline Masters 1.15–1.19



## Differentiation

### Extra practice

Each group of students will need:

- numeral cards for 1 to 5 from *The Number Case* (Note: Use Blackline Master 1.20 if more cards are needed)

Each student will need:

- 5 counters

Organize the students into small groups. Place the cards in an array, facedown, between each group. Provide each student with five counters. Ask one student to choose a card. The remaining students use their counters to show the amount shown on the card. Have them look at the arrangement made by other students. Repeat the activity several times with a different student choosing the numeral card.

### Extra challenge

Each student will need:

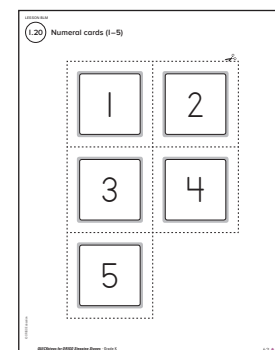
- 1 copy of Blackline Master 1.21

Give each student a copy of the blackline master and say, *Read the numeral, then draw that number of shapes. You must draw pictures of the same shape for each numeral, for example, five squares. Draw pictures of different shapes for each numeral.*

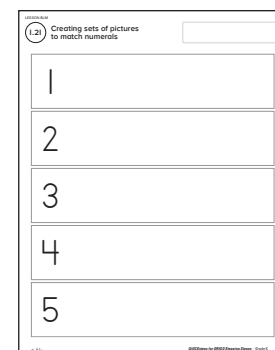
Numeral cards



Blackline Master 1.20



Blackline Master 1.21



## Small group activities

### 1. Creating matching groups

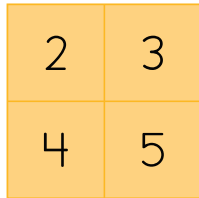
You will need:

- large sheet of card (about 32 inches by 32 inches) showing the target pictured
- container of counters

Each pair of students will need:

- small beanbag

Organize students into pairs. Have them take turns to throw the beanbag onto the target, say the number name that matches where the beanbag lands, and collect that number of counters. They return the counters to the container after each member of the group has had a turn. Alternatively, each student can save their counters and count them at the end.



### 2. Making groups of four

You will need:

- container of drinking straws or craft sticks, cut to make at least four long pieces and four short pieces for each student

Each student will need:

- sheet of paper
- access to art resources such as crayons, glue, confetti, and glitter

Each student finds four long sticks the same length and glues the sticks to make a large square rectangle on the paper. They then find four small sticks to make a small square rectangle on the same sheet of paper. The students count the number of sides on each square. They can use the art resources to decorate the inside of each shape.

## Enrichment

### Matching everyday quantities and numbers 1 to 5

Each pair of students will need:

- access to advertising catalogs that show packs of grocery items
- 5 sheets of paper
- scissors and glue



Organize the students into pairs and distribute the resources. Have the students look through the catalogs to find a pack, bunch, or bag of 1 to 5 items, then the matching number. They cut these out and paste them together on a sheet of paper. Afterward, help the students make a number book for 1 to 5.

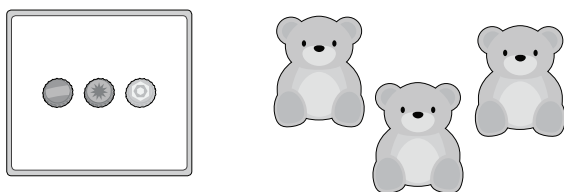
# Module I

## Core Focus

- Number: Creating groups of objects and pictures to match numerals (1 to 5)
- Data: Sorting into two categories and yes/no graphs

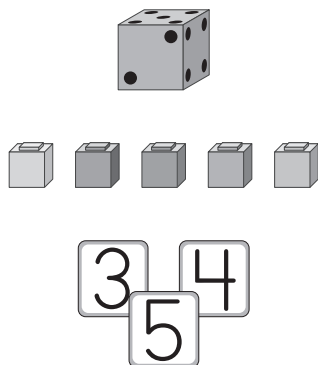
## Numbers 1–5

- Counting concepts and skills are among the most important elements in a young child’s mathematical development because they form the basis for all future number and arithmetic concepts and skills.
- To develop a full understanding of numbers, students connect three ideas: the concrete or pictorial representation, the number name, and the symbol (both the **numeral** and the written word).
- Students learning to count often count out of order, skip some numbers, or repeat some. They are trying to mimic the counting they have heard without realizing why we count.
- As students realize the purpose of counting is to determine the number of items in a collection, they learn to recite the counting numbers properly.



In this lesson, students create a quantity of bears to match a picture card.

- While students are still developing counting skills, it is normal for them to say more than one number as they point to a single object, to skip some objects, or to count some objects more than once.
- Matching sets of objects, number names, pictures showing the same quantity, and numerals are valuable activities to develop counting concepts and skills.



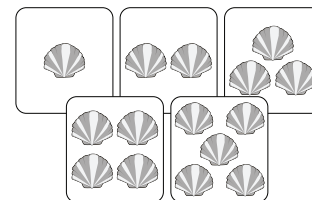
In this lesson, students match quantities to the numerals 1–5.

## Ideas for Home

- Find opportunities to count at home. Have your child count the plates on the table for a meal, the number of toys on their bed, or the number of people in the car or bus.
- When counting objects, try pushing each object to one side, or pointing to each object as it is counted, to help avoid recounting objects or skipping an object.
- After your child counts a group of objects, ask, “How many?” An important concept for kindergarten students is learning that the last number spoken names the total of the set.

## Glossary

- ▶ A **numeral** is a symbol that stands for a number, or quantity. As students count, they connect numerals and pictures of the quantity. They also create matching sets, e.g. counting out three or five toy animals to match the numeral card.



## Helpful videos

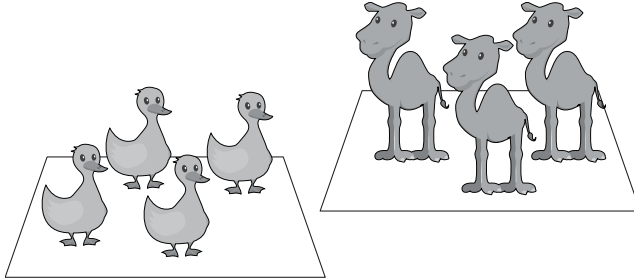
View these short one-minute videos to see these ideas in action.

[www.bit.ly/OI\\_10](http://www.bit.ly/OI_10)

# Module I

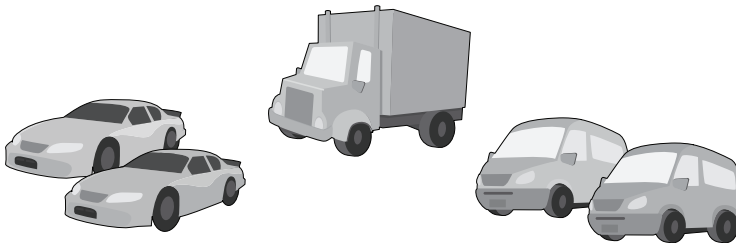
## Sorting

- Students sort and classify objects into small groups in a variety of ways — by color, type of object, and so on.
- Counting the sorted groups and making observations, such as which group has the most, provides important practice in recognizing both numerals and number names from 1 to 5.

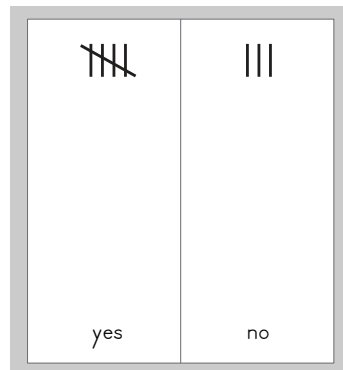


In this lesson, students sort objects, such as toy animals, into groups using a rule (e.g. type of animal, color, or size of animal). Students then describe their sorting by noticing which group has the most or least, or the group that is in-between.

- Students develop their understanding and skill with numbers through varied experiences with sorting and classifying objects into small groups. They then count the small groups and match the quantities to numerals.
- Students develop their own rules for sorting based on measurable attributes, such as color, size, or shape. For example, a collection of toy cars can be sorted by color and then sorted again by type of car (sports car, truck, or minivan).



- In class, students answer simple yes/no questions (e.g. Do you have a pet? Do you like soccer?) and sort the responses in a graph.




## Ideas for Home

- Encourage your child to sort their toys and other household objects. Hold up an object and ask, “Which group does this belong to? How do you know?” Listen to your child explain their sorting rule (e.g. toys with wheels and toys with no wheels).
- Once your child has sorted items into groups, ask questions such as, “Which group has the most?” and “Which group has the least?”
- Ask your child to make groups to match your own. Say, “I have four plates. Can you make a group of cups with the same amount?”
- Work with your child to think of several questions that can be answered with yes or no. Then ask family members and friends to answer and record the number of yes answers and no answers.

## 1.1 Pre-test

I. Draw O to match each numeral.

3	
2	
4	
1	
5	

1.2

Pre-test

2. Draw ● in each circle to match the sort.

3. Circle the hat that has been sorted into the wrong group.



## 1.3 Pre-test interview I

### Resources

- 5 counters

### Steps

- Place five counters in front of the student and say, *Count the counters aloud.*
- Observe whether the student gives each counter a unique number name and uses each number name only once.
- If further evidence is required, repeat for other quantities to 5.
- Draw a ✓ beside the learning the student has successfully demonstrated.



PRE-TEST INTERVIEW



- When counting, paired each object with one and only one number name (one-to-one principle).



PRE-TEST INTERVIEW



- When counting, paired each object with one and only one number name (one-to-one principle).

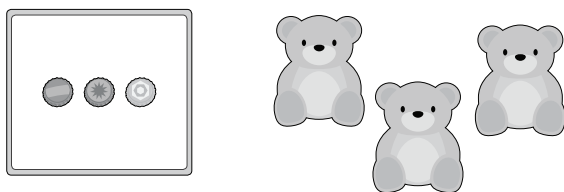
# Módulo I

## Enfoque básico

- Número: Creando grupos de objetos e imágenes que correspondan a los numerales (del 1 al 5)
- Datos: Clasificando en dos categorías y gráficas de sí/no

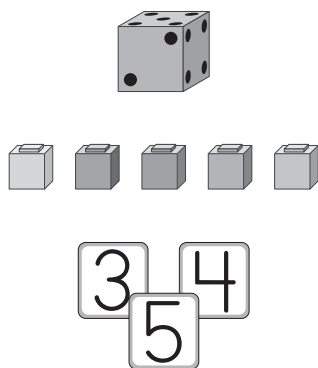
## Números del 1 al 5

- Los conceptos y habilidades de conteo están entre los elementos más importantes en el desarrollo matemático de los niños más jóvenes, porque forman la base para todos los futuros conceptos y habilidades numéricas y aritméticas.
- Para desarrollar una comprensión completa de los números, los estudiantes conecta tres ideas: la representación concreta o ilustrada, el nombre del número y el símbolo (tanto el **numeral** como la palabra escrita).
- Cuando los estudiantes están aprendiendo a contar, con frecuencia no cuentan en orden, o se saltan algunos números y repiten otros. Ellos están tratando de imitar el conteo que han escuchado, sin entender por qué contamos.
- A medida que ellos entienden que cuentan para determinar la cantidad de elementos de un grupo, aprenden a decir los números de conteo correctamente.



En esta lección, los estudiantes crean una cantidad de osos que corresponde a la imagen en la tarjeta.

- Mientras los estudiantes todavía están desarrollando habilidades de conteo, es normal que digan más de un número cuando señalan un solo objeto, omitan algunos objetos o cuenten algunos objetos más de una vez.
- Asociar conjuntos de objetos, nombres de número, imágenes con igual cantidad y numerales son actividades valiosas para desarrollar los conceptos y habilidades de conteo.



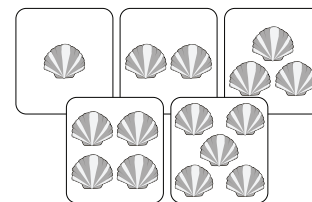
En esta lección, los estudiantes forman cantidades que correspondan a los numerales del 1 al 5.

## Ideas para el hogar

- Busque oportunidades para contar en casa. Pida su niño que cuente los platos para la cena en la mesa, el número de juguetes en su cama, o el número de personas en el auto o el autobús.
- Al contar los objetos, muévanlos hacia un lado, o señálenlos a medida que los cuenta, para así evitar volverlos a contar o saltarse uno al contar.
- Luego de que su niño cuente un grupo de objetos, pregunte: ¿Cuántos hay? Un concepto importante en kínder es aprender que el último número que se dice es el total del conjunto.

## Glossary

- Un **numeral** es un símbolo que representa a un número o cantidad. A medida que los estudiantes cuentan, asocian numerales e imágenes de la cantidad. Ellos también crean conjuntos correspondientes, por ejemplo, contar tres o cinco animales de juguete que correspondan a la tarjeta del numeral.



## Videos útiles

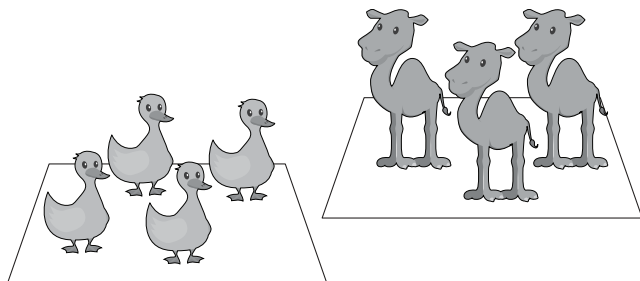
Vea estos videos cortos para observar estas ideas en acción.

[www.bit.ly/OI\\_10](http://www.bit.ly/OI_10)

# Módulo I

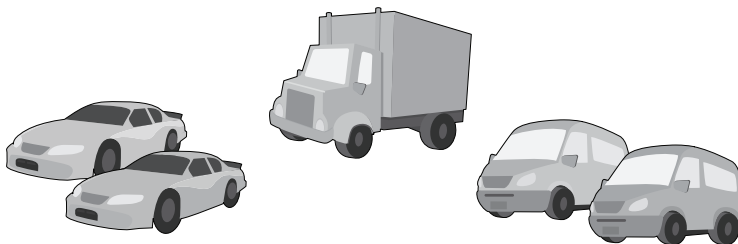
## Clasificando

- Los estudiantes ordenan y clasifican objetos en grupos pequeños de varias maneras: por color, tipo de objeto, y así sucesivamente.
- Contar los grupos clasificados y hacer observaciones, como cuál grupo tiene la mayor cantidad, proporciona una práctica importante en el reconocimiento de numerales y nombres de número del 1 al 5.



En esta lección, los estudiantes clasifican objetos, como animales de juguete, en grupos que utilizan una regla (ej.: tipo, color o tamaño del animal). Luego describen su clasificación resaltando cuál grupo tiene la mayor o la menor cantidad, o cuál se encuentra en medio.

- Los estudiantes desarrollan su comprensión y habilidad con los números a través de experiencias de ordenar y clasificar objetos en grupos pequeños. Luego los cuentan y hacen que las cantidades correspondan a los numerales.
- Los estudiantes desarrollan sus propias reglas para clasificar basadas en atributos medibles, como color, tamaño o forma. Por ejemplo, un grupo de autos de juguete se puede clasificar primero por color y luego por tipo (camión, auto deportivo o SUV).



- En clase, los estudiantes responden preguntas simples con sí/no (ej.: ¿Tienes una mascota? ¿Te gusta el fútbol?) y clasifican las respuestas en una gráfica.


sí	no

## Ideas para el hogar

- Anime a su niño a clasificar sus juguetes y otros objetos del hogar. Sostenga un objeto y pregúntele: “¿A cuál grupo pertenece esto? ¿Cómo lo sabes?” Escuche a su niño explicar su regla de clasificación (ej.: juguetes con ruedas y sin ruedas).
- Una vez que su niño haya clasificado objetos en grupos, haga preguntas como: “¿Cuál grupo tiene la mayor cantidad?” y “¿Cuál grupo tiene la menor cantidad?”
- Pida a su niño que forme grupos que correspondan a los suyos. Diga: “Tengo cuatro platos. ¿Puedes formar un grupo de tazas con la misma cantidad?”
- Trabaje con su niño para crear varias preguntas que se puedan responder con sí/no. Luego hagan estas preguntas a miembros de la familia y amigos y registre el número de respuestas sí y respuestas no.

**I.1 Prueba de diagnóstico**

I. Dibuja O que correspondan a cada numeral.

3	
2	
4	
1	
5	

1.2

Prueba de diagnóstico

2. Dibuja ● en cada círculo de manera que correspondan con la clasificación.

3. Encierra el sombrero que se ha clasificado en el grupo equivocado.