

Stepping Stones Pre-K

Teacher Edition

Module 3, Topic 2 Sample

Number: Practicing quantity recognition



This sample is from the **ORIGO Stepping Stones Pre-K** program.

The Teacher Edition resource (available in print and digital) provides access all lesson plans, teaching tools, and content for *ORIGO Stepping Stones Pre-K*.

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Included in this sample

TOPIC 2 CONTENTS

Number: Practicing quantity recognition

Learning targets

- 3B Count up to 5 objects in a group
- 3C Subitize up to 5 objects in a group

Topic contents

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Whole group 1

Investigating quantities 1 to 5

In this activity, children count a quantity using both tangible and non-tangible objects.

Step 1 Preparing the activity

Each group of children will need:

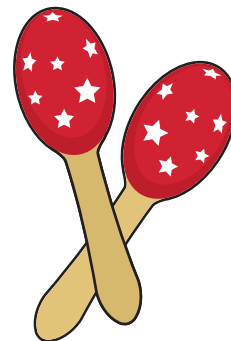
- 1 maraca (or a small plastic bottle filled with uncooked rice)

Each child will need:

- 5 connecting cubes

Step 2 Starting the activity

Distribute the connecting cubes. Ask, *Can anyone show me how to count from one to five?* Invite a child to count aloud to the class. Say, *I am going to say a number aloud. I want you to count that many connecting cubes and place them on your fingers. When the cubes are on your fingers, I would like you to put your hand in the air.* For each number, select a child to count their cubes aloud. Provide enough examples so every child has the opportunity to count aloud to the group. Use the number names out of order when calling the number.



Step 3 Teaching the activity

Say, *I am holding the musical instrument called a maraca. It makes a noise that sounds like this.* Shake the instrument. Say, *We are going to practice listening to the number of shakes I make with my maraca. When I shake the maraca, I want you to count aloud.* Repeat the activity several times. This activity is crucial for children to start acquiring the skill of abstraction.

Organize the children into groups and distribute the maracas. Encourage them to continue the activity. As they are doing so, walk around and listen to the children to highlight successes and intervene if necessary.

ELL

Encourage ELL children to count in their first language, then in English. Pair each child with a fluent English-speaking group.

Step 4 Reflecting on the work

Say, *Today we created quantities from one to five.* Prompt the children to sit in a circle for Reflection Time. Encourage them to share their reflections with the group. Provide an example if necessary.

Whole group 2

Identifying quantities 1 to 5

In this activity, children identify quantities of one to five.

Step 1 Preparing the activity

You will need:

- *ORIGO Big Book: How Many Animals?*
- 1 set of domino dot cards 1 to 5 from *The Math Case*: Green set 5
- 1 maraca (or a small plastic bottle filled with uncooked rice)

Step 2 Starting the activity

Invite the children to stand in a circle. Say, *Each of you will have the chance to shake the maraca for the class. When it is your turn, you may shake it 1, 2, 3, 4, or 5 times. After you are finished, we will jump that amount of times to match.*

Demonstrate the activity. The maraca is passed around the circle, with each child having a turn at shaking the maraca. Have the children count aloud each jump they make.

Step 3 Teaching the activity

Say, *In the previous activity, we practiced counting from one to five. Now, we are going to start learning how to recognize a quantity from one to five. Has anyone ever heard the word quantity? It means how many are in a group.* Display the cover of *How Many Animals?* Say, *In this book we found different groups, or quantities, of animals.* Take a picture walk through the book, stopping at page 13. Point out the quantity of four lions, two chickens, and so on. As you find a new quantity, display the dot card to match the quantity. Ask the following questions:

How many (lions) do you see?

How many dots do you see?

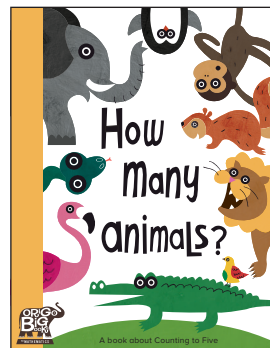
Do you see the same quantity of dots as (lions)?

What is the same about both pictures?

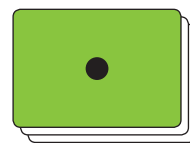
Step 4 Reflecting on the work

Say, *Today we recognized quantities from one to five.* Prompt the children to sit in a circle for Reflection Time. Encourage them to share their reflections with the group. Provide an example if necessary.

How Many Animals?



Green set 5



ELL

Allow time for the children to discuss the word *quantity* with another child.

Small group activities

1. Matching quantities

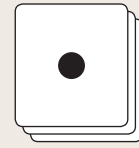
In this activity, children select the number of dots to match a pictorial quantity.

You will need:

- 2 *ORIGO Big Cubes*
- *ORIGO Big Cubes Cards*: sets J and K (includes one wildcard per set) placed in the cubes

Say, *Today we are going to see if we can roll a match. The goal of this game is to roll the same number of dots and the same quantity — matching quantities of dots and animals.* Show the wildcard symbol and say, *If you roll this wildcard, you can roll the cube again.* Roll both cubes and say, *Look at the cubes. Say the amounts aloud, then count to see if you are correct. How many dots did I roll?* (Three.) *How many animals did I roll?* (Two.) *Are both quantities the same?* (No.) *How do I know they are not the same?* Demonstrate the activity again and ask the same questions, until you roll a match. Encourage the children to roll the cubes. Encourage them to say the numbers aloud first, then count to see if they are correct.

Set J



Set K



2. Blowing bubbles

In this activity, children practice counting and matching a quantity shown in a picture.

You will need:

- 1 *ORIGO Big Cube*
- *ORIGO Big Cubes Cards*: set J

Each child will need:

- bubble mixture and bubble wand
- sheets of paper towel

Say, *Today we are going to blow bubbles. Raise your hand if you have blown bubbles before. I am going to show you how I take a breath to blow bubbles.* Demonstrate the activity, distribute the resources, and allow the children to practice. Say, *When it is your turn, you roll this cube. The number you roll will be the quantity of breaths we will take to blow bubbles. If you roll the wildcard symbol, you can choose any number from one to five.* Demonstrate. Encourage the children to identify whether the number of breaths they took to blow bubbles matches the number on the cube. Encourage the children to engage in the activity for several rounds. As each round progresses, discuss how each group of breaths is showing a quantity.

Learning center activities

1. Hit the target

In this activity, children select the number of cubes that match a quantity on the target.

Each group of children will need:

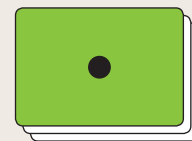
- 1 set of domino dot cards 1 to 5 from *The Math Case*: Green set 5
- 1 small beanbag or similar for tossing

Each child will need:

- access to connecting cubes
- 1 plastic cup

Place the domino cards in an array on the floor. Distribute the resources and say, *You are going to fill your cup with cubes. When it is your turn, you toss the beanbag onto a domino card.* Stand about one foot from the target to demonstrate. Then say, *Look at the number of dots your toss landed on and place the same number of cubes inside your cup. Keep playing until someone in the group has filled their cup.* During the activity, encourage children to count aloud to practice their stable-order counting skills and cardinality.

Green set 5



2. Under the dome

In this activity, children recognize a pictorial quantity and represent that number with materials.

You will need:

- 1 permanent marker

Each pair of children will need:

- 5 plastic containers with dot arrangements for 1–5 marked on the bottom
- counters

Organize the children into pairs and distribute the resources. Say, *You are going to work in pairs to practice matching quantities.* Turn a set of containers upside down and say, *Look at the number of dots on each container. You will use the counters to show the quantity by placing them under the container.*

Demonstrate the activity. Ask one child to put counters under a container of their choice and explain their thinking to the other child. They check that the quantities match. Prompt the children to alternate roles and repeat the activity. Use numbers up to ten if a child is ready to work with a greater amount.

Community center activities

1. Monster faces

In this activity, children create a monster face by matching the pictorial quantity selected with the number of facial features. Before the activity, create a few examples of different monster faces for children to use as a reference.

Each group of children will need:

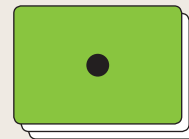
- various craft materials to make monster faces
- 1 set of domino dot cards from *The Math Case*: Green set 5

Each child will need:

- 1 paper plate
- scissors and glue

In the Craft Center, display your monster face models for the children to see. Say, *On this monster face there are (three noses) and (four eyes). On this monster face there is (one eye) and (four mouths). You are going to create your monster face to match the quantities on the cards. First you turn over one card, then you choose to show that many eyes, ears, noses, or mouths.* Distribute the resources. Mix the cards and place them facedown in a pile. Then, one at a time, have the children turn over a card and use that quantity as the (eyes) on their monster face. They then turn over the next card for the next facial feature. Children should create the following monster features: eye/s, nose/s, mouth/s, and ear/s. Display the monster faces around the classroom.

Green set 5



2. Go fishing

In this activity, children represent dot quantities with cubes.

You will need:

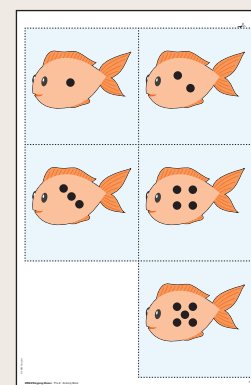
- 1 set of fish cards from *ORIGO Stepping Stones Pre-K Activity Book* page 7
- large paperclips (*Note*: Make the fish by attaching a paperclip to the back of each card.)
- 1 stick, about 2 feet long
- 1 piece of yarn
- 1 piece of magnetic tape (*Note*: To make the fishing pole, tie the yarn to one end of the stick, then attach the magnetic tape to the other end of the yarn.)

Each group of children will need:

- 1 bucket
- connecting cubes

In the Dramatic Play Center, place the fish facedown inside the bucket. Organize the children into groups and distribute the resources. Ask the children to take turns to go fishing. If they catch a fish, everyone in the group uses the cubes to make a quantity to match the dots on the fish. When all fish have been caught, place them back in the bucket to play again.

Activity Book, p. 7



MODULE 3 OVERVIEW

Focus

Counting

Strong counting abilities support a firm grasp of numeracy before children move on to more complex number concepts. Children encounter each of the following counting principles throughout this module.

- One-to-one principle: Counting each object in a group once and only once.
- Stable-order principle: Repeating number names in a specific sequence (which does not need to be correct, only consistent).
- Cardinality principle: The last number said describes the total quantity in the group.
- Abstraction principle: Anything can be counted, tangible or intangible.
- Order-irrelevance principle: Objects can be counted in any order so long as no object in a group is skipped and no number is used more than once.

Though children do not need to master these skills until the end of the program, they do need to become familiar with each one to accomplish rapid counting development.

A note on zero: For young children to understand the concept of zero, they first need to understand the meaning of a quantity, how to represent a quantity, and which numeral is the symbolic representation of that quantity. Zero is only introduced after children understand and internalize the idea of quantity.

Number vs. numeral

For children to have a firm grasp of what a number represents, they must first understand the *quantity* aspect of number. This should progress naturally from counting objects to seeing pictorial quantities to recognizing dot arrangements, to eventually linking these quantities to the number symbol. Only after children understand the meaning of quantity should they be shown the corresponding numeral. Because the concept of numeral is so abstract, showing numerals to young children too early may create misconceptions or misunderstandings. At this age, children are not expected to write the numerals because they are physically and developmentally too young to accomplish this. They are only expected to recognize the number symbol and represent its quantity.

Subitizing

Subitizing is the act of instantly recognizing a quantity without having to count each item in the quantity one by one. Subitizing is critical in building numeracy skills that support abstract number concepts and strategies in later years. There are two different types of subitizing: *perceptual* and *conceptual*. Perceptual subitizing is when a child is able to automatically see a given quantity, usually no more than three at this age. Conceptual subitizing is when the child has to mentally rearrange a quantity into recognizable patterns before automatically seeing the given quantity.



Children develop an understanding of number by representing quantities using a variety of resources.

Research into practice

Young children come to school with many preconceived ideas about the concept of number, including the idea of quantity and symbolic representations. They gather such information from everyday life and even TV shows or phone apps. Each child's idea of number may be different depending on their experiences. Regardless of their background knowledge, research shows that children benefit from learning experiences — involving sorting, classifying, matching, comparing, and eventually ordering numbers — by using both quantity and symbolic representations. Each of these stages is critical for attaining good number sense. Research also shows that these learning experiences support the ability to count rationally and master the five counting principles, along with supporting efforts for different thinking strategies linked to addition and subtraction.

In this module, children begin to learn about the numbers one, two, three, four, and five. Children experience matching quantities, creating quantities, and linking those quantities to the symbolic representation (numerals). Children also start the process of subitizing (immediately recognizing a collection without counting) numbers up to five, by seeing it in both concrete and picture form, and structured and unstructured arrangements.

Reading list

Baroody, Arthur J. and Jesse L. M. Wilkins. 1999. "The Development of Informal Counting, Number, and Arithmetic Skills and Concepts." In *Mathematics in the Early Years*, edited by Juanita V. Copley, 48–65. Reston, VA: National Council of Teachers of Mathematics.

Clements, Douglas B. and Julie Sarama. 2007. "Early Childhood Mathematics Learning." In *Second Handbook of Research on Teaching and Learning Mathematics*, edited by Frank K. Lester, vol. 1, 461–555. Charlotte, NC: Information Age Publishing.

MacDonald, Beth L. and Jessica F. Shumway. 2016. "Subitizing Games: Assessing Preschoolers' Number Understanding." *Teaching Children Mathematics* 22: 340–348.



Children experience matching quantities to the symbolic representation.

MODULE 3 OVERVIEW

Vocabulary

Bolded vocabulary will be introduced and developed in this module.

Topic 1

A group of, count, five, four, groups, how many, number name, numbers, one, quantity, three, two.

Multi-meaning words

- The words *four* and *for* are homophones. Children can help their parents set *four* places at the dinner table or perform a dance *for* their group. The words sound the same, but have different meanings. Ensure the children are aware of the difference.
- The words *one* and *won* are homophones. Children can see *one* sun in the sky and have *won* games. The words sound the same, but have different meanings. Ensure the children are aware of the difference.
- The words *two*, *too*, and *to* are homophones. Children can help their parents count *two* bananas, they can walk *to* the park, and a friend can come *too*. The words sound the same, but have different meanings. Ensure the children are aware of the differences.

Topic 2

Groups, **groups of**, quantity.

Topic 3

Different, **domino**, **dot arrangements**, **five-frame**, row, same.

Topic 4

Five, four, **match**, one, three, two.

Newsletter for home

The content that is addressed in this module is summarized in the Newsletter found on page 293 (shown below). A Spanish language Newsletter is on page 294. You can send the Newsletter home before beginning the module. Check the boxes at the bottom of the newsletter to indicate the items you need the children to bring from home.

NEWSLETTER FOR HOME

ORIGO

STEPPING STONES

Module 3

Learning focus – Working with numbers 1 to 5


This module gives your child experiences in rote counting to 5, then 10, counting up to 5 objects in a group, instantly recognizing (subitizing) up to 5 objects in a group, and recognizing and reading number symbols 1 to 5.

Rote count from 1 to 5, then 1 to 10


Children practice saying the numbers 1 to 5, then 1 to 10, in counting order.

Count up to 5 objects in a group

Many children come to school already able to count. However, to develop a good understanding of number as quantity, children need to encounter quantities in many different ways. Strong counting skills are required before moving on to more complex number concepts, such as addition and subtraction.




Encourage your child to count the number of plates, napkins, glasses, and forks (up to five) they use when setting the table. At the grocery store, ask your child to count the fruits or vegetables (again, up to five) you place inside your cart.



The ORIGO Big Book: How Many Animals? is used to introduce counting 1 to 5 in a group.

Subitize up to 5 objects in a group

Subitizing means visually recognizing the total number in a group without counting the items in that group one by one. This ability is critical for supporting addition and subtraction strategies later in elementary school.



In a standard deck of cards, take out the cards that represent the quantities one to five. Use them to play games including go fish and memory with your child to help them recognize quantities by sight.

Recognize and read numerals 1 to 5

For children to understand what a number represents, they must first be familiar with the quantity aspect of number. This follows from a natural progression of counting objects, to seeing pictorial quantities, to recognizing dot arrangements, to eventually linking these quantities to the number symbol, or numeral.

Please help by sending the following:

☐ Child-friendly magazines, catalogs, and mailers

Helpful videos

View these short one-minute videos.

b.link/OI_21_E

b.link/OI_22_E

b.link/OI_31_E

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CIRCULAR

ORIGO

STEPPING STONES

Módulo 3

Enfoque de aprendizaje: trabajar con los números del 1 al 5


Este módulo les brinda a los niños experiencias para contar de memoria hasta el 5, luego hasta el 10, contar hasta 5 objetos en un grupo, reconocer de manera instantánea (subitizar) hasta 5 objetos en un grupo y reconocer y leer símbolos numéricos del 1 al 5.

Contar de memoria del 1 al 5, luego del 1 al 10


Los niños practican diciendo los números en orden del 1 al 5, luego del 1 al 10.

Contar hasta 5 objetos en un grupo

Muchos niños comienzan la escuela ya sabiendo contar. Sin embargo, para desarrollar una buena comprensión de que un número representa una cantidad, los niños deben experimentar con distintas cantidades de diferentes maneras. Se requiere contar con una firme capacidad de contar antes de avanzar a conceptos más complejos relativos a los números, como la suma y la resta.




Anime a su niño(a) a contar el número de platos, servilletas, vasos y tenedores (hasta cinco) que utilizan al poner la mesa. En la tienda, pídale a su niño(a) que cuente las frutas o vegetales (hasta cinco) que usted coloca en su carro de compras.



El ORIGO Big Book: How Many Animals? se utiliza para introducir el conteo de 1 a 5 en un grupo.

Subitizar hasta 5 objetos en un grupo

Subitizar significa reconocer visualmente el número total que hay en un grupo sin contar los artículos que hay en el grupo uno por uno. Esta habilidad es muy importante para las estrategias de suma y de resta que aprenderá en la primaria.



En una baraja de cartas, tome una carta que represente las cantidades del uno al cinco. Utilícelas para jugar juegos como "a pescar" y juegos de memoria con su niño(a) para ayudarle a reconocer cantidades a simple vista.

Reconocer y leer numerales del 1 al 5

Para que los niños comprendan lo que representa un número, primero deben estar familiarizados con el hecho de que un número está asociado a una cantidad. Esto proviene de una progresión natural de contar objetos, ver cantidades representadas con imágenes y reconocer disposiciones de puntos, para finalmente encontrar la relación entre estas cantidades y el símbolo numérico o numeral.

Por favor ayude enviando lo siguiente:

☐ Revistas adecuadas para niños, catálogos, etc.

Videos útiles

Mire estos videos cortos para ver estas ideas en acción.

b.link/OI_21_S

b.link/OI_22_S

b.link/OI_31_S

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MODULE 3 OVERVIEW

Whole group resources

Resources and materials	Topic	Activity
You will need:		
<i>ORIGO Big Poster Book 3, ORIGO Big Poster Book Song 3</i>	1	1
5 soft toy animals	1	1
2 hula hoops	1	2
<i>ORIGO Big Book: How Many Animals?</i>	1 2 4	2 2 1
10 toy animals (or teddy bear counters)	1	2
1 set of domino dot cards 1 to 5 from <i>The Math Case: Green set 5</i>	2 3 4	2 1, 2 2
1 maraca (or a small plastic bottle filled with uncooked rice)	2	2
<i>The Math Case: Yellow set 1</i>	3	2
number cards for 1 to 5 from <i>The Math Case: Green set 8</i>	4	1, 2
number picture cards for 1 to 5 from <i>The Math Case: Green set 4</i>	4	2
Each group of children will need:		
1 maraca (or a small plastic bottle filled with uncooked rice)	2	1
Each child will need:		
5 teddy bear counters	1	1
5 connecting cubes	2	1
1 set of fish cards from <i>ORIGO Stepping Stones Pre-K Activity Book</i> page 7	3	1
1 cookie sheet covered in aluminum foil	3	2
1 dollop of shaving cream placed on the covered sheet	3	2
1 set of number cards showing 1 to 5 from <i>ORIGO Stepping Stones Pre-K Activity Book</i> page 8 (see page 149 for directions)	4	2

Small group resources

Resources and materials	Topic	Activity
You will need:		
<i>ORIGO Big Book: How Many Animals?</i>	1 4	1 2
<i>ORIGO Big Cubes</i>	1 2 3 4	1 1, 2 2 1
<i>ORIGO Big Cubes Cards: set I</i> (includes one wildcard)	1	1
20 teddy bear counters (minimum)	1	1
<i>ORIGO Big Cubes Cards: sets J and K</i> (includes one wildcard per set)	2	1
<i>ORIGO Big Cubes Cards: set J</i>	2 3	2 2
1 set of five-frames showing quantities 1 to 5 from <i>The Math Case: Green set 6</i>	3	1
<i>ORIGO Big Cubes Cards: set L</i> (Note: Flip the 0 card to show the whale on the outside of the cube.)	4	1
5 toy animals	4	1
Each child will need:		
<i>ORIGO Stepping Stones Pre-K Activity Book</i> page 6	1	2
paint	1	2
1 cotton swab	1	2
bubble mixture and wand	2	2
sheets of paper towel	2	2
1 empty five-frame from <i>The Math Case: Green set 7</i>	3	1
5 counters	3	1
5 cubes	3	2

MODULE 3 OVERVIEW

Learning center resources

Resources and materials	Topic	Activity
You will need:		
15 star stickers	1	1
5 resealable bags, each showing 1 to 5 star stickers on the outside	1	1
number picture cards for 1 to 5 from <i>The Math Case</i> : Green set 4	1	2
1 permanent marker	2	2
1 set of domino dot cards for 1 to 5 from <i>The Math Case</i> : Green set 5	3	2
Each group of children will need:		
1 set of domino dot cards 1 to 5 from <i>The Math Case</i> : Green set 5	2	1
1 small beanbag or similar for tossing	2	1
1 magic box (see page 31 for instructions)	4	1
2 sets of matching numbers 1 to 5 in a range of materials (see page 151 for details)	4	1
1 tray	4	1
number picture cards for 1 to 5 from <i>The Math Case</i> : Green set 4	4	2
1 set of domino dot cards for 1 to 5 from <i>The Math Case</i> : Green set 5	4	2
number cards for 1 to 5 from <i>The Math Case</i> : Green set 8	4	2
Each pair of children will need:		
5 plastic containers with dot arrangements for 1–5 marked on the bottom	2	2
counters	2	2
number picture cards for 1 to 5 from <i>The Math Case</i> : Green set 4	3	1
domino dot cards from <i>The Math Case</i> : Green set 5	3	1
five-frame cards for 1 to 5 from <i>The Math Case</i> : Green set 6	3	1
Each child will need:		
5 counters	1	1
5 long lengths of string or yarn	1	2
15 beads of different shapes and sizes (minimum)	1	2
access to connecting cubes	2	1
1 plastic cup	2	1
1 small paper plate	3	2
markers or crayons	3	2
5 small counters	3	2

Community center resources

Resources and materials	Topic	Activity
You will need:		
1 set of fish cards from <i>ORIGO Stepping Stones Pre-K Activity Book</i> page 7	2	2
large paperclips (<i>Note:</i> Make the fish by attaching a paperclip to the back of each card.)	2	2
1 stick, about 2 feet long	2	2
1 piece of yarn	2	2
1 piece of magnetic tape (see page 136 for making the fishing pole)	2	2
Each group of children will need:		
<i>ORIGO Big Book: How Many Animals?</i>	1	1
counters	1	1
1 device to play the recording	1	1
headphones	1	1
1 set of domino dot cards from <i>The Math Case: Green</i> set 5	2	1
various crafting materials to make monster faces	2	1
1 bucket	2	2
connecting cubes	2	2
5 sticker dots or strips of tape (see page 144 for instructions)	3	1
5 bowling pins (or use plastic bottles one-fourth filled with sand)	3	1
1 ball	3	1
1 large sheet of paper divided into five sections, with each section labeled with a number from 1 to 5	4	2
several child-friendly magazines, catalogs, mailers	4	2
Each pair of children will need:		
1 set of domino dot cards from <i>The Math Case: Green</i> set 5	1	2
15 clothespins	1	2
markers	1	2
1 standard cube labeled: 1, 2, 3, 3, 4, 5	3	2
10 connecting cubes	3	2
Each child will need:		
1 paper plate	2	1
scissors and glue	2 4	1 2
<i>ORIGO Stepping Stones Pre-K Activity Book</i> page 9 (see page 152 for instructions)	4	1
craft supplies, such as sequins, pasta, stickers, and glue	4	1

MODULE 3 OVERVIEW

Learning targets and assessment

This chart shows the options for assessing each learning target of this module.

This chart shows the options for assessing each learning target of this module.

Standard	Learning target	Formative		Summative
		Observations	Portfolio samples	Interview
Counting and cardinality				
3A	Rote count from 1 to 5	●		1
3B	Count up to 5 objects in a group	●	●	2
3C	Subitize up to 5 objects in a group	●		3
3D	Recognize and read numerals 1 to 5	●	●	3

Professional learning and video support



For professional learning in relation to the content of this module, select from the following videos in the *MathEd* channel within *Slate*.

BH02 Using a hands-on approach to represent numbers to 10



Short one-minute videos are frequently added to the *ORIGO ONE* channel within *Slate*.

Titles relevant to this module include:

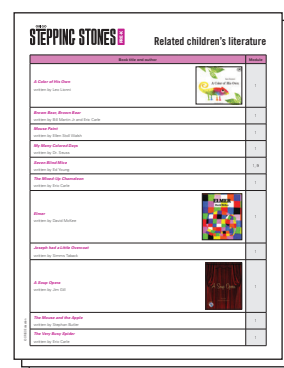
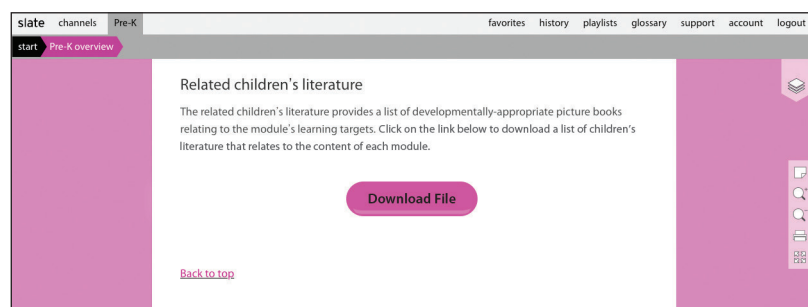
Introducing the ORIGO model for teaching concepts

Introducing the language approach for teaching mathematics

Introducing the ORIGO model for teaching skills

Related children's literature

Log in to the digital *Teacher Edition* and navigate to the Pre-K overview page to download a list of children's literature that relates to the content of each module.



Assessment recording

Log in to the digital *Teacher Edition* and navigate to the Pre-K overview page to download a spreadsheet to record the children's achievement of the learning targets in each module

slate

channels

Pre-K

start

Pre-K overview

favoriteshistoryplaylistsGLOSSARYsupportaccountlogout

Assessment options and recording sheets

Observation

This formative assessment is a vital tool to help you gauge children in their learning progression.

Portfolio samples

This formative and/or summative assessment is a collection of pictures, projects, or children's work that can be housed in one place throughout the school year. It shows growth in concepts across the year.

Interviews

At this age, it is essential that children are interviewed to ensure they understand the concepts. This is also a great assessment to negate any misconceptions children may have.

Recording

Data-driven sheets you can use to record learning outcomes.

Click on the link below to download a spreadsheet to record the children's achievement of the learning targets in each module.

Download File

[Back to top](#)

[illegible]

Alternatively, use Blackline Masters 3.1 (individual) and 3.2 (whole class).

ASSESSMENT BLM

3.1

Recording (individual)

LEARNING TARGETS	COMMENTS
3A Rate count from 1 to 5	
3B Count up to 5 objects in a group	
3C Subitize up to 5 objects in a group	
3D Recognize and read numerals 1 to 5	

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ORIGO Stepping Stones - Pre-K

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MODULE 3 OVERVIEW

Formative assessment

Observations

Some activities are better suited than others for providing information regarding how children's understanding of concepts and skills is developing. This chart lists the best activities and shows what to look for as they unfold.

Standard	What to look for	Activity
3B	Did the child consistently match a number word with an animal quantity?	Topic 1: Small group 1
	Did the child consistently and concretely show the correct quantity represented by the dot arrangements?	Topic 1: Learning center 1
	Does the child consistently match quantities?	Topic 2: Small group 1
	Does the child stop blowing bubbles to show the correct number quantity?	Topic 2: Small group 2
	Does the child show understanding of one-to-one correspondence?	Topic 2: Community center 2
	Does the child use one-to-one correspondence when counting the number of pins knocked down?	Topic 3: Community center 1
3C	Can the child grab the correct amount of cubes without counting?	Topic 3: Small group 2
	Does the child consistently recognize that cards show the same or different quantities without counting?	Topic 3: Learning center 1
	Does the child consistently recognize the pictorial quantity of dots without counting?	Topic 3: Learning center 2
3D	Does the child recognize the numerals 1, 2, 3, 4, and 5 consistently?	Topic 4: Whole group 2
	Does the child consistently show the correct quantity for the numeral presented?	Topic 4: Small group 1

Portfolio samples

This chart lists the best activities for generating work samples that serve as suitable evidence of the learning that has occurred.

Standard	What to look for	Activity
3B	Add the <i>Activity Book</i> pages to their portfolio.	Topic 1: Small group 2
	Take a picture of the child's number necklace and place it inside their portfolio.	Topic 1: Learning center 2
	Place the monster face inside their portfolio. If able, ask the child to describe their monster face and write their explanation on a sheet of paper.	Topic 2: Community center 1
	Take a few pictures of their freckle faces and place them in their portfolio. If able, ask the child to describe their freckles and write their explanation on a sheet of paper.	Topic 3: Learning center 2
3D	Take a picture of the child with various mix-and-match cards. If able, ask the child to describe their mix-and-match cards and write their explanation on a sheet of paper.	Topic 4: Learning center 2
	Take the fancy numerals and place them in their portfolio. If able, ask the child to describe their numerals and write their explanation on a sheet of paper.	Topic 4: Community center 1

Summative assessment

Interviews (Assessment BLMs 3.3–3.5)

3A

ASSESSMENT BLM

3.3 Interview 1

Activity

- Say, *I want you to count to five starting at number one.*
- Draw a ✓ beside the learning that the child has successfully demonstrated.

INTERVIEW

1

☐ Rote counted in correct order from 1 to 5.

Comments: _____

INTERVIEW

1

☐ Rote counted in correct order from 1 to 5.

Comments: _____

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3B

ASSESSMENT BLM

3.4 Interview 2

Resources

- 10 counters

Activity

- Say, *I am going to say a number and I want you to show me that number of counters. Show me three counters. If successful, repeat with 1, 2, 4, and 5 counters in random order.*
- Draw a ✓ beside the learning that the child has successfully demonstrated.

INTERVIEW

2

☐ Correctly showed a quantity of one.

☐ Correctly showed a quantity of two.

☐ Correctly showed a quantity of three.

☐ Correctly showed a quantity of four.

☐ Correctly showed a quantity of five.

Comments: _____

INTERVIEW

2

☐ Correctly showed a quantity of one.

☐ Correctly showed a quantity of two.

☐ Correctly showed a quantity of three.

☐ Correctly showed a quantity of four.

☐ Correctly showed a quantity of five.

Comments: _____

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3C + 3D

ASSESSMENT BLM

3.5 Interview 3

Resources

- 1 set of domino dot cards for 1 to 5 from *The Math Case*: Green set 5
- number cards for 1 to 5 from *The Math Case*: Green set 8

Activity

- Lay the five number cards out on the table in front of the child. Say, *I am going to show you some dot cards. When I do, I want you to point to the number that tells the number of dots you see. Show the five dot cards in a random order. Then say, I am going to say a number word. When I do, I want you to point to the matching number. Say the number words in a random order.*
- Draw a ✓ beside the learning that the child has successfully demonstrated.

INTERVIEW

3

☐ Correctly identified the numeral to match the pictorial quantity for 1.

☐ Correctly identified the numeral to match the pictorial quantity for 2.

☐ Correctly identified the numeral to match the pictorial quantity for 3.

☐ Correctly identified the numeral to match the pictorial quantity for 4.

☐ Correctly identified the numeral to match the pictorial quantity for 5.

☐ Correctly identified the numeral to match the verbal number name for 1.

☐ Correctly identified the numeral to match the verbal number name for 2.

☐ Correctly identified the numeral to match the verbal number name for 3.

☐ Correctly identified the numeral to match the verbal number name for 4.

☐ Correctly identified the numeral to match the verbal number name for 5.

Comments: _____

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MODULE 3 OVERVIEW

Routines

These routine activities can be used to support smooth transitions between activities in the daily schedule.

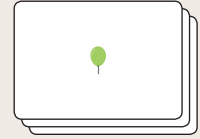
1. Hop, skip, and a jump

You will need:

- number picture cards for 1 to 5 from *The Math Case*: Green set 4

When children are lining up to go to lunch or recess, ask them to do various physical activities, such as hopping, skipping, or jumping, to get into line. Hold up a quantity card and say, *I want you to count the quantity and (hop) that many times towards the line*. Repeat with other cards until all children are in line.

Green set 4



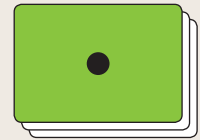
2. Count with me

You will need:

- 1 set of domino dot cards from *The Math Case*: Green set 5
- number cards for 1 to 5 from *The Math Case*: Green set 8

When transitioning between Learning centers, show the children a dot or number card and say, *If I show you a quantity or number 3, I want you count aloud to three as you walk to your next center. Count like this, 1, 2, 3, 1, 2, 3, 1, 2, 3*. Choose a different dot or number card for each transition. As the children become comfortable with the counting, it can be extended to ten, then 15.

Green set 5



Green set 8

