

Objectives

The primary objective of Unit 2 is to continue to use “counting to 5” as the vehicle to build growing competence in the “number core” which includes:

- Rote counting (the number word list)
- One to one correspondence (one object paired with one number word)
- Cardinality (how many in a set)
- Recognizing written numerals

Many students are certainly capable of working with quantities greater than 5, but this [scope and sequence of skills and topics](#) is intentional for kindergarten readiness. Using “Counting to 5” as the vehicle boosts children’s confidence as they master their understanding of the core content; you’ll use various strategies (sorting, grouping, counting, etc.) in each lesson.

What’s Required? When?

- **All of the experiences noted in this guide are required** for Pre-Kindergarten students, with weekly pacing at teachers’ discretion. This means that all experiences listed for that week must be offered, in the order introduced (typically #1 through #4) but teachers should determine the timing (when to introduce and how long to spend).
- It is expected that teachers also consistently:
 - **Incorporate math talk into daily classroom routines.**
 - [What is Math Talk?](#) (5 minute video)
 - [Promoting Math Talk](#) (3 minutes)
 - **Include a Math fluency activity as part of your circle time routine.** This can be as simple as counting how many friends are present today or introducing a counting song. Suggestions include:
 - I Can Count to 10 (Lyrics and Song Sample)
<http://www.songsforteaching.com/marharman/musicwithmar-icancountto10.php>
 - Counting with My Friends (Lyrics and Song Sample)
<http://www.songsforteaching.com/math/earlynumberscounting/countingwithmyfriends.htm>
- Note that materials are suggested but are easily substituted for available classroom items.

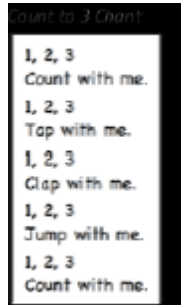
How Do I Differentiate or Supplement?

- You will find a page of Seasonal Supplemental Activities on [Page 7 of this guide](#); these activities are optional.
- If you are interested in supplementing the math curriculum with additional learning centers, or need suggestions for how to differentiate instruction for varied abilities, the *Preschool Math Guide* is an excellent resource for you.
- The activities in the *Preschool Math Guide* are age-appropriate for PK students too and can be used to reinforce individual skill development (practice for emerging learners), to add variety to a topic (diversity for varied interest levels), or to assess growing competence (observe children’s mastery levels).

1. Large or Small Group – Review Count to 3 Chant

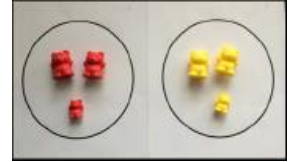
If students have mastered the chant from last week, call on students to lead new actions (e.g., 1, 2, 3, swim with me, stomp with me, etc.) Repeat the 1, 2, 3 Pass game, too.

The repetition of these activities from one lesson to the next is valuable. The first time, students are focused on learning the steps to a new activity, but by the second time, they are able to do it with ease and efficiency.



2. Small Group – Concept Development
(working with a group of 4-6 children)

Materials: 2 sorting mats, baggie with items that can be sorted into two groups by more than one attribute (e.g., 6 little people toys that can be sorted by gender and size, 6 teddy bear counters that can be sorted by color or size, etc.)



- Working with a group of 4-6 children, show students a bag containing 2 big red bears, 2 big yellow bears, 1 little red bear, and 1 little yellow bear.
- Place the sorting mats on the rug.
- Instruct the students to sort the bears into two different groups on the mats, first by color. Ask students, “What groups did we make?” and “How did we sort our groups?”
- Repeat this activity, instructing students to now sort the bears into two different groups by size.

3. Small Group – Concept Practice
(working with a small group of 4-6 children)

Materials: Per pair: differing baggies of items that can be sorted into 2 groups by more than 1 attribute (e.g., bears, vehicles, flowers, leaves, pinecones), 2 sorting mats

- Split children into pairs.
- Invite students to sort the items into two different groups on their mats.
- Guide discussion, promote math talk, and assess understanding by asking, “What groups did we make?” and “How did we sort our groups?”; support as needed.

4. Learning Center – Practice Through Play

Materials: 3 containers, labeled by size (small, medium, large), 3 sizes of pompoms, tongs or tweezers

Children use tongs to sort pompoms by size. Note that it’s important that the containers are sized appropriately (3 different sizes) and are labeled accordingly (small, medium, large).



1. Large or Small Group – Fluency Practice (Count & Clap)

Now that students have counted to 3 by rote, their counting skills grow as they combine the rote counting with an action. This leads to being able to touch and count objects. Demonstrate each step in I do, you do format. Check to be sure that the movements are said precisely with each number word, so that one word corresponds to one action just as students will pair one number word with one object in additional activities this week.

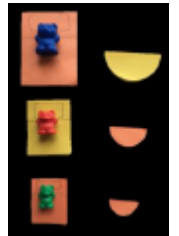
- Clap 1 time and count 1 at the same time.
- Clap 2 times and count 2 at the same time.
- Clap 3 times and count 3 at the same time.
- Repeat with different actions (hop, stomp, etc.)

Note that the remainder of this week’s activities use the story *Goldilocks and the 3 Bears* as a reference point/teaching tool. Read the story ahead of time to make this lesson more engaging. This title is available in the ABCMouse library.

2. Small Group – Concept Practice
(working with a group of 4-6 students)

Materials: 2 sorting mats , 3 bears, 3 rectangle beds cut from construction paper (2 orange, 1 yellow), 3 semi-circle bowls cut from construction paper (2 orange, 1 yellow)

- Ask children to recall how they sorted items in more than one way (by color, shape, size, type, use).
- Introduce students to the Three Bears one at a time, matching each bear’s bed and bowl as pictured to the right. Next, ask students to sort the items first by type (put the bowls on one mat and the beds on the other). Then, have them sort the bowls and beds by color as pictured below. Have students talk about the similarities and differences of objects in each group.



Note: This Application Problem reviews sorting one set of items into two given groups and provides groups of 3 that can be counted in the Concept Development. The two colors work not only as an attribute for sorting, but also as a subtle way for students to begin to see that 1 and 2 are embedded in a quantity of 3.

3. Small Group – Concept Practice
(Working with a small group of 4-6 students)

Retell *Goldilocks and the 3 Bears* as a playful context for counting to 3. Limit the details of the story so that counting remains the primary objective.

- Hold up a doll: “This is Goldilocks. One day she found a cozy cottage in the forest, and she walked right in.”
- Show the bowls: “She saw bowls of porridge and decided to try them. One big bowl was too hot. One middle-sized bowl was too cold. One tiny bowl was just right.”
- Ask students, “How many bowls are there? Let’s touch each bowl and count together, 1, 2, 3.”
- Use self-talk, “Three is the last number I said, so there are 3 bowls.”
- Continue the Goldilocks story, stopping after each part (chairs, beds, bears) to ask students a how many question.



4. Learning Center – Practice Through Play

The Dramatic Play center is a perfect place for children to practice counting to 3 while reenacting the Goldilocks story.

Have sets of three objects (bowls, chairs, beds) ready for students who are working to master one-to-one correspondence and cardinality.

Other students may be ready to start counting out 3 bowls to match with 3 bears. (Fun link to thematic content- perhaps the bears would like apples in their bowls?)

Encourage children to use tablets to reread the story in the ABCMouse library

1. Large Group – Fluency Practice

Once students demonstrate mastery of rote counting up to 3, they can strengthen their understanding of the sequence by counting down from 3:

- 1, 2, 3, look at me. (Make a silly movement.)**
3, 2, 1, let’s have some fun! (Mimic silly movement.)

After a few iterations, experiment with varying the tempo, cadence, tone, and volume of the count. These slight variations increase the level of complexity by challenging students to recall the counting sequence while modifying the chant.

- **Stretch it out: onnnnnnnne... twwooooooo... threeeeeeee**
- **Staccato: One! Two! Three! (Each number is pronounced crisply, followed by a brief pause.)**
- **Volume: Whisper, shout, classroom voice.**

2. Small Group – Concept Development

(working with a group of 4-6 students)

Materials: Set of 3 leaves (2 of an obviously different color, size, or shape from the other), 2 sorting mats

- Show the leaves and ask, “How many leaves do you see?” Have children count as you touch.
- Ask children to share what they notice about the leaves, and then select one of the attributes described by students to sort. Have all the children count how many as a student places the leaves on the mat. Repeat for the group of 1.
- Note: By asking students to identify attributes and then choosing one of those attributes for sorting, the activity validates students’ emerging observational skills. Have students sort another way and discuss changes or similarities between the two sorts

3. Small Group – Concept Practice

(working with a small group of 4-6 students)

Materials: 1–3 column template (Template 1); sorting mat; 6 animals in quantities of 1, 2, and 3 (e.g., 1 horse, 2 pigs, 3 sheep)*

- Place 6 animals on the sorting mat: “Old MacDonald’s animals are waiting to eat. How many (horses) are there?” Touch and count each animal as you sort them into 3 groups (still on the one sorting mat).
- Tell students, “Before they can eat, the animals have to line up.”
- Place the 1–3 column template next to the sorting mat. Point to the 1-dot column and ask, “How many animals will eat in this line?” and “Which group has 1 animal?” Have a student place the horse in the box above the dot.
- Repeat for 2 dots and 3 dots. After each group is placed in a line, guide students to discover that the number of animals stays the same, even though the way they are arranged changes.



4. Learning Center – Practice Through Play

Use blocks or other classroom items to create a parking lot on the carpet or on a table.

Provide children with a basket full of toy vehicles. They must help their animals get into groups (sort) and then line up to find parking spots. Ask them to count each line to identify the number in each group.

- You can challenge students by asking them to use blocks, yarn, or painters’ tape to create lines for each group.
- You can provide support to students by providing lines (of varying appropriate lengths) before they begin sorting.

Vary this activity by using other modes of transportation – planes waiting to take off, trains moving along parallel tracks, etc.

*To make a thematic connection, you can certainly change the materials to vehicles and guide children in sorting and “parking” their cars.

Note that all 4 experiences on this page are required this week, but pacing is at teachers’ discretion.

1. Large or Small Group – Peek A Boo Counting

Materials: 2 manila folders, 3 different objects (a colorful block, a toy truck, a cup)

Ahead of time, prepare a screen using 2 manila file folders with ends stapled together to form a screen. Prior to beginning the activity, have 1 object placed on a table, behind the screen.

Begin the activity by raising and lowering the screen and saying "Peek-a-Boo!" Repeat again and then say: "There is something behind this screen. Did you see it?" (Lift and replace the screen again.)

Ask children how many things they saw. Tell them you're going to play again, but this time there could be 1 thing, 2 things, or 3 things!" (Place 2 objects behind the screen and lift the screen.) "How many things did you see?"

Continue in this manner to 3, then in random order. .

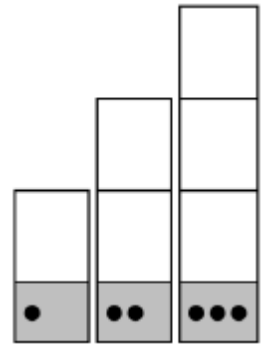
To extend: Model how to play with friends, taking turns being the teacher, and invite children to use this learning center throughout the day.

2. Small Group – Concept Development

(working with 4-6 students)

Ask students if they remember how they organized the animals in a line and give ample time for them to share and explain.

Give the instruments to a set of children. Have the others direct the members of the band into the correct lines by counting each type of instrument and matching it to 1, 2, or 3 dots.



Invite the band to play along as the class sings "Old MacDonald Had a Farm." or any familiar song.

Note: This problem allows students to practice a familiar skill, counting up to 3 objects arranged in a linear configuration and matching the count with a dot configuration.

Vary the experience by varying materials & the song.

3. Small Group – Counting & Correspondence Practice

(Working with a small group of 4-6 students)

Materials: a variety of family photos, dot cards that represent numbers 2 – 5 (or dots on one side and numerals on the other)

- Hold up a family picture. Ask, "How many people are in this family? Let's count." Point to each person, as students count chorally, "1, 2, 3, 4." Guide students to respond, "There are ____ people in that family."
- Call a student forward to match the number of family members to the correct dot configuration, and affix the picture under it. Repeat Steps 1–4 with various family pictures (with 2–5 family members), matching each one to a dot configuration.
- Pair students and guide partners to ask and answer questions about their pictures, e.g., "How many people are in this family?" "How many dots?"

To extend, add a set of numeral cards to the playdough center, to the blocks center, and to the easel. Challenge children to choose a card and then:

- make the appropriate number of snakes, balls, or any object from playdough
- build a tower or make a road using the appropriate number of blocks
- paint the appropriate number of family members at the easel

4. Large or Small Group – Fluency Practice

1, 2, 3, 4, Touch the floor!

Lead children in the following: Count, "1, 2, 3, 4," then say, "Touch the floor!" and have the students touch the floor. Repeat the count and add the following actions each time: Point to the door, start to snore, give a roar, swim to shore. To add excitement, count slowly and say the action rapidly. Note that this fluency activity was selected in anticipation of future lessons. Students need to be comfortable rote counting to 4 before they work with a quantity of 4.

Show Me Fingers

Tell the children: "I am going to say a number, and I want you to show me that many fingers. Listen for the number. Ready? Show me 1 finger." As children show you, comment on the various ways children are showing you, i.e.: "Ooh, I see Alex is showing me her thumb, that's 1 finger. I see Oliver is showing me his pointer finger, that's still 1 finger. Continue with a new quantity: "Listen for the next number everyone.... Ready? Show me 2 fingers."

Note that all experiences on this page are required (and should be repeated at least 2x) during this 2 week period.

It can be difficult to introduce new concepts during a short (but busy!) holiday week.

Select 1 or more of these fun learning centers instead; you're also invited to choose from the Seasonal Supplements on the next page.

1. Learning Center – Pizza Making (more and less)

Provide children with precut “pizza crusts and sauce circles” along with assorted “toppings.” Invite children to freely create a pizza with at least 2 different toppings in order to compare more and less.

Once children are finished, ask each child to dictate how they built their pizza. Ask specific questions for more information: “How many pieces of cheese is on your pizza? How many green peppers?”

Finally, ask each child: “Which topping do you have more of?” and record: “Chef Jackie has more cheese and less green peppers.”

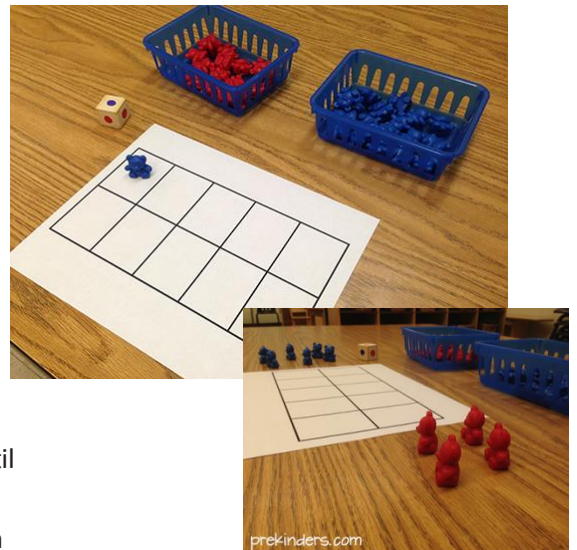


2. Learning Center – Counting Bears (more and less)

Children begin with two containers of counters of your choice, (as shown in photo), and a color dice. You can create a dice using a wooden cube, masking tape, and sharpies. Color dots on the cube to match the colors of your game. (3 dots of one color, 3 dots of the other) Print out copies of the grid paper at the bottom of the page here:

<http://www.prekinders.com/more-and-less-dice-game/>. There are options for 10, 15, and 20 boxes to differentiate.

Children roll the cube, name the color, take a counter of the basket the same color, and place it in a square on the grid. Continuing taking turns until the grid is full. Then, have children sort the bears by color, placing the groups on opposite sides of the mat. Count how many of each color. Which color has the most, least, or same amount? Return the bears to the baskets and play again!



3. Learning Center – Adding Feathers (more and less)

*Instead of the trees and leaves pictured here, create a turkeys and feathers counting game. Children will roll a dice, then add the corresponding number of feathers to a turkey. Children can play back and forth with a friend or fill up the turkeys together.

Challenge proficient counters by adding a second dice or one with numbers instead of dots.



Seasonal Supplements

These thematic experiences are optional ways to supplement your math curriculum. Note that children are not expected to master the concepts introduced here, as the curriculum gives them specific attention later in the year.

Counting Apples, Pumpkins, and Candy Corn

- Follow up a reading of 10 Red Apples with the fun flannel board experience explained [here](#).
- The activities shown [here](#) use small plastic pumpkins and beans but can be easily adapted using materials found in your supply closet.
- If you try out [this activity](#), be sure to try the “check my work” step that’s suggested, too!

Weighing Apples

Use your classroom balance to determine what weighs more than an apple, as described [here](#). You can easily adapt this experience to weigh small pumpkins, gourds, or even leaves, prompting lots of important “math talk” about same, different, more, less, heavier, lighter, etc.

Apple Print Patterns

Challenge children to use apple prints to make simple ABAB patterns. To extend this activity, use real apples to create patterns and capture photos on your classroom iPad; invite children to duplicate the patterns that they see in the photos.



Apple Tree Math Games

Use your classroom’s jumbo dice and some pompoms from the supply closet to play some of the apple tree games described [here](#). Please note that the subtraction stories mentioned are likely too complex for your students at this time of year; counting and 1:1 correspondence are most appropriate.



Turkey Feather Counting

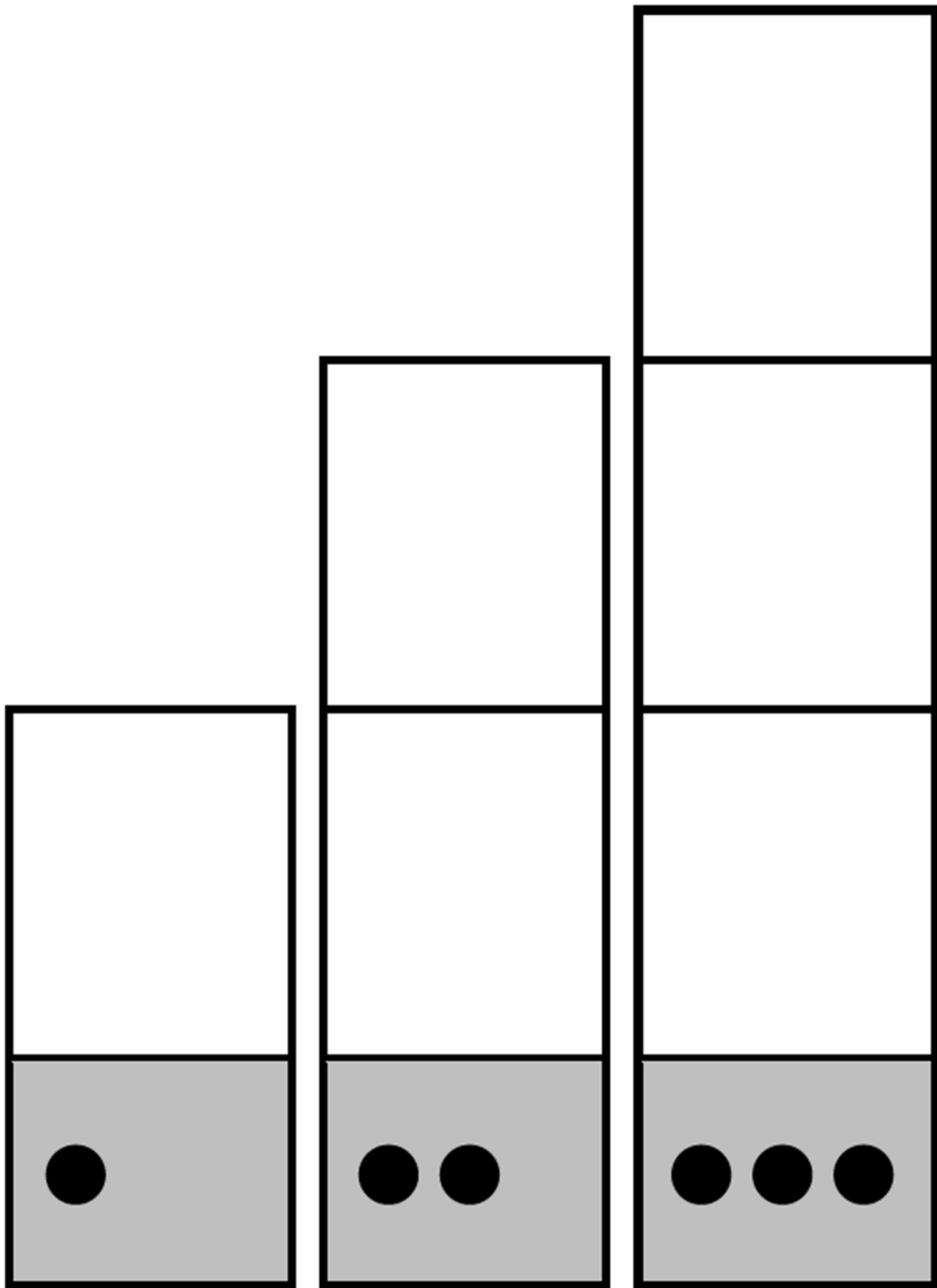
- You can engage children in every step of [this activity](#), including tracing and cutting out the necessary pieces.
- Playdough adds a fun, 3D element to [this game!](#)

As a seasonal reminder regarding diversity and sensitivity, we never use feathers to create “Indian headbands” or related items. See your lesson plans and curriculum notes for more information, as needed.

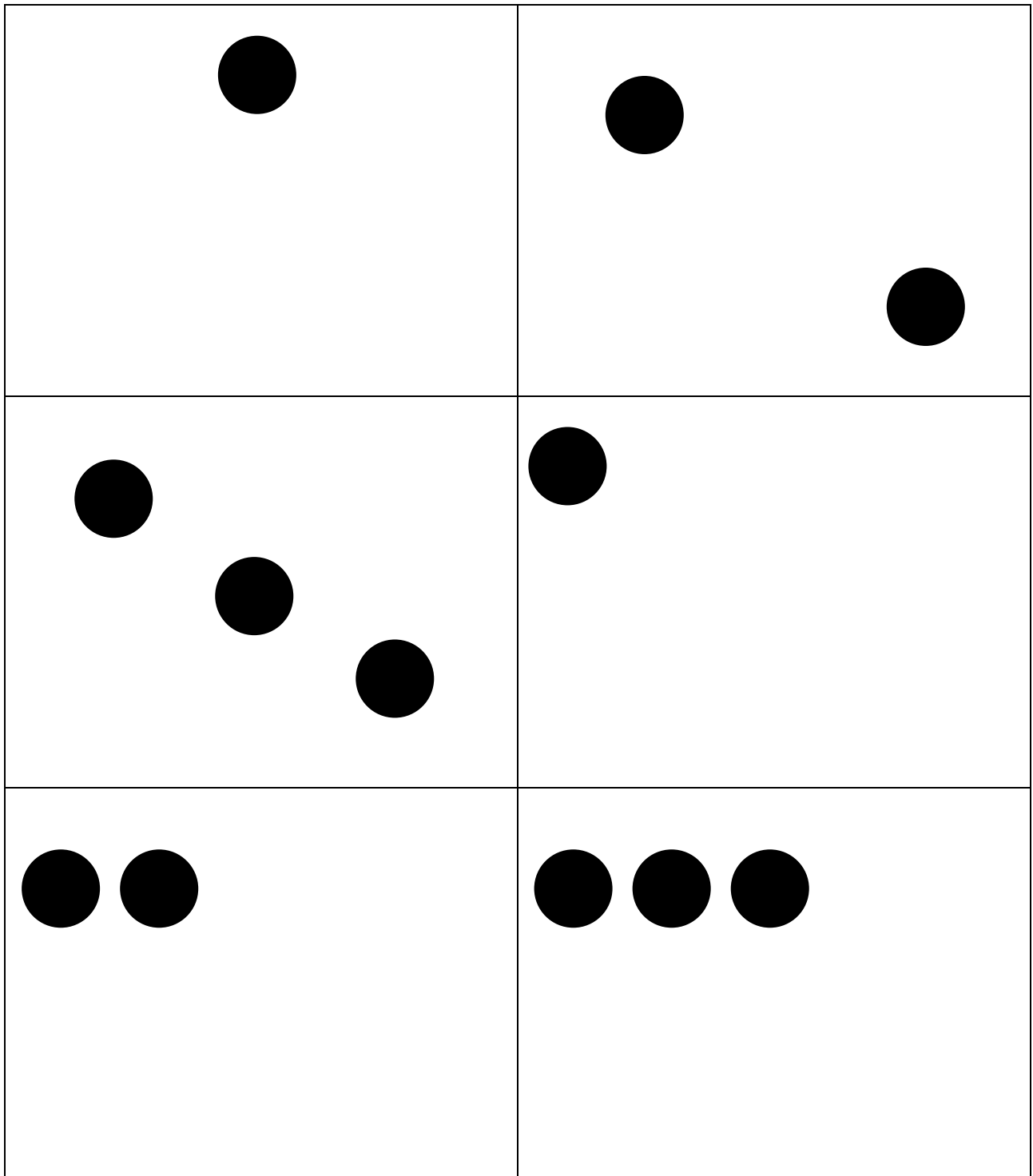
Size Sequencing

Families will bring in pumpkins and gourds in a variety of sizes, perfect for sequencing and sorting activities! Sequence from largest to smallest and from smallest to largest.

To extend this experience, give children orange construction paper in various sizes and invite them to cut into circles, then decorate these as jack-o-lanterns and sequence them by size, too.



linear configuration



dot cards
(you may want to add numerals to the backs)