

Pattern Parade

Teacher's Guide

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Overview:

The Pattern Parade Treasure Chest consists of a series of five lessons that all follow the same format. Each lesson begins with storytime and a focused discussion of the patterns presented in a picture book. After the story, the children will watch a short video clip (or two) about patterns from a PBS KIDS show. The children will then engage in a hands-on activity where they create patterns of their own. Each lesson also includes materials for a center activity where students can work alone or with another student to create patterns. Finally, each lesson contains links to PBS KIDS games that will allow the students to continue to practice more patterns. (These games can also be played in the PBS KIDS app.)

Sequence of Lessons:

- **Day 1 - Sorting and Classifying**
- **Day 2 - Simple Patterns**
- **Day 3 - Movement Patterns**
- **Day 4 - Sound Patterns**
- **Day 5 - Patterns in Stories**

Day 1 - Sorting and Classifying

Early Learning and Development Standards

Mathematics 3.b. Develops the ability to sort

- Notices differences between familiar and unfamiliar people, objects, and places
- Matches two objects that are the same and selects similar objects from a group
- Sorts objects into two or more groups by similarities and differences
- Sorts and classifies objects by one or more attribute (e.g., color, size, shape)

Overview of activities and materials needed

Book: The Animals Would Not Sleep! by Sara Lavine
PBS KIDS Videos: “Sort, Sort, Sort” [1 min, 54 sec] https://bit.ly/4aQ1iaZ and “All Sorts of Things” [11 min] https://bit.ly/4emkrlY
Activity: Bead https://bit.ly/4vfKTF8 and Breathing Wand https://bit.ly/4ozd5Aq

- 2 pipe cleaners per child
- Handful of beads per child
- Paper containers

Center Activity: Animal Sort

- Animal erasers
- Circle papers

PBS KIDS Games: Sorta-ma-Gogo https://bit.ly/4a2vTlz and Go Fetch https://shorturl.at/o4xnL

Procedure

Step 1:

Read The Animals Would Not Sleep! by Sara Lavine. On each page, have the children carefully look at the illustrations and identify what the animals in each basket have in common (the rule for sorting). As you work through the story, note for the children that Marco tries many different ways to sort the animals, using many different rules for sorting (e.g., how and where the animals move, their color, and their size). Talk about what goes wrong with each try, and discuss which method of sorting finally works and why. Ask the children for an example of one of their favorite stuffies (or use a stuffie in the classroom) and ask which of Marco's baskets it would go in and why. Where would the stuffie be on Marco's bed when he
finally gets to sleep?

Step 2:

Watch Peg and Cat clean up a messy room in the video clip "Sort, Sort, Sort" [1 min, 54 sec] https://bit.ly/4aQ1iaZ and then check for understanding by making sure the children can now use their own words to explain what "sort" means. Peg says, "Sorting is when you separate things based on shape or size or whatever." In the song Peg and Cat sort things by size, texture, smell, hard cover vs. soft cover, dirty vs clean, friendly vs. mean, buttons vs. zippers, stringed instruments vs. wind instruments, etc. See how many of these rules for sorting the children can identify. Next, before watching "All Sorts of Things" [11 min] https://bit.ly/4emkrlY, ask the children to be on the lookout for which sorting rules the characters use in this story. (Remind them of some of the rules Marco and Peg used.) Periodically stop the video and ask the children what sorting rules they can identify (size, color and purpose). At the conclusion of the video, ask the children if there IS a "right way to sort things" and discuss how this changes in different situations.

Step 3:

Make Bead https://bit.ly/4vfKTF8 and Breathing Wands https://bit.ly/4ozd5Aq. Have the children each take a handful of beads and put them in the paper containers. Ask them to then sort their beads by different attributes (color, size, shape, etc.) into groups. Have them make a pattern from their groups before creating the wand. To create the wand, have the children place the beads onto a pipe cleaner to form the handle of the wand and create a loop at each end so that the beads stay on. Have the children use the second pipe cleaner to make the tip. For example, they could make a shape like a star, flower, or circle to twist onto the top of the wand. As an extension activity, use the bead wands to practice mindful breathing. Have the children move the beads along the length of the pipe cleaner while taking deep, long breaths and exhaling. The beads can also be used with "I am" affirmations. Have the children say one affirmation for each bead on the wand (e.g., I am kind, I am brave, I am smart).

Step 4:

Set up the Animal Sort Center Activity. Animal sort involves having the students work to create their own labels for the erasers and put the animals into groups, just like Marco. Use the circle papers for the children to have areas to place their animals.

Step 5:
Allow time for the children to practice more patterns by playing the following PBS KIDS games, or share the links with parents so that the learning can continue at home:

- Sorta-ma-Gogo https://bit.ly/4a2vTlz - This Cat in the Hat game asks children to sort items into bins according to type and color.
- Go Fetch https://shorturl.at/o4xnL - In this Donkey Hodie game, the kids help Bob Dog sort his toys as quickly as possible.

Additional Ideas: Have the children play Elinor's Nature Adventure https://tinyurl.com/3xhdrpds and then create their own collecting and sorting boxes with this lesson plan from PBS LearningMedia https://shorturl.at/QVMAV. Invite families to join in the fun!

Day 2 - Simple Patterns

Early Learning and Development Standards

Mathematics 3.c. Develops understanding of patterns

- Copies a repeating pattern

Overview of activities and materials needed

Book: Pitter Pattern by Joyce Hesselberth
PBS KIDS Video: "Zadie's Shell Shuffle" [11min, 36 sec] https://shorturl.at/tsmFE

- Watch with a Purpose Bands https://tinyurl.com/mw4vudsx

Activities: Mr. E's Shell Garden and Zadie's Flower Garden, and Garden Craft

- Mr. E's Shell Garden and Zadie's Flower Garden https://tinyurl.com/mr26fx7t handouts
- Crayons (not provided)
- Green construction paper
- Glue sticks (not provided)
- Tissue paper squares
- Dot stickers

Center Activity: Cookie Cutter Art

- Cookie cutter set
- Crayons (not provided)
- Paper (not provided)

PBS KIDS Games: Planet Pal https://shorturl.at/y7D18 and Pattern Palooza Fair https://tinyurl.com/3vdzhm5r

Procedure

Step 1:
Read Pitter Pattern by Joyce Hesselberth. Ask the children to identify what is making the "pitter, patter, pat!" sound at the beginning of the story. Explain that a pattern is something that repeats in an organized way like the sound the rain is making. As you continue, have the children

carefully look at the illustrations and identify the different patterns they see (e.g., the pattern of boot, boot, puddle on pages 3 and 4 and the pattern of the trees, the flowers, the fruit, and the food on pages 5 and 6). Point out some of the additional patterns that the children might miss (e.g., patterns in clothing, on umbrellas, on fur). Pause mid-sentence in your reading from time to time to allow the children to complete the verbal patterns in the story (e.g., Milk, cracker, apple, cheese. Milk, cracker, apple, cheese. Milk, cracker …). Have the children clap to repeat the rhythmic patterns on the Tuesday page and get up to dance to the Wednesday movement pattern. Remind the students the days of the week also form a pattern. After finishing the story, ask the students what patterns they can find in the classroom.

Step 2:
Pass out the Watch with a Purpose Bands, which ask, "What is the Pattern of Mr. E's shell garden?" and have the students view "Zadie's Shell Shuffle" [11min, 36 sec] https://shorturl.at/tsmFE. (If you watch only a portion of the episode, be sure to include the pattern sequence song (0:00-1:25, 7:25-8:43, 9:29-10:55). After viewing the video, ask the students if they were able to see the pattern in Mr. E's shell garden. Ask them how the garden got messed up, and discuss how Jun Jun was able to remember the pattern of the garden.

Step 3:
Have the children use crayons to make color patterns on the handouts of Zadie's Shell Shuffle and Flower Garden Design. (On the first handout, they follow the pattern of Mr. E's garden. On the second handout, they create their own color patterns.) Next, allow the students to create another patterned garden with tissue paper flowers and a caterpillar made of dot stickers. Have them create a few rows of flowers by crumpling up the tissue paper and gluing it to construction paper in a pattern of colors. (Each row should follow the same pattern.) Finally, have the children add a patterned caterpillar made of different colored dot stickers to their garden.

Step 4:
Set up the Cookie Cutter Art Center Activity. Show the students how to trace around the cookie cutters and let them experiment with making different patterns on their paper with different sizes and colors.

Step 5:
Allow time for the children to practice more patterns by playing the following PBS KIDS games, or share the links with parents so that the learning can continue at home:

- Planet Pal https://shorturl.at/y7D18 - In this Arthur game, the children help the dogs of Planet Pal create patterns of colors to add fun things to the planet.
- Pattern Palooza Fair https://tinyurl.com/3vdzhm5r - Here the kids help the characters from the Work It Out Wombats treeborhood play pattern games.

Additional Ideas: Watch "Pattern Palooza" [11 min, 5 sec] https://rb.gy/juk6qn from Work It Out Wombats! and then have your students create their own pattern fair in the classroom with the accompanying lesson plan. Invite families to come join in the fun!

Day 3 - Movement Patterns

Early Learning and Development Standards

Mathematics 3.c. Develops understanding of patterns

- Copies a repeating pattern
- Imitates repeated movements

Overview of activities and materials needed

Book: From Head to Toe by Eric Carle
PBS KIDS Videos: "Step, Step, Bounce - The Dinosaur Problem" [37 sec] https://tinyurl.com/4vp5mc85, "Elmo Slide" [2 min, 3 sec] https://tinyurl.com/3hcbzecz, "Wombat Wiggle" [1 min, 29 sec] https://tinyurl.com/4p9sur56 and "CeCe's Birthday Bash" [3 min, 8 sec] https://tinyurl.com/2wkvynuc
Activities: Carrot Cake Dance [50 sec] https://tinyurl.com/yxasz4ht and The Carrot Cake Dance Mixed-Up Activity https://tinyurl.com/z253474e and Elmo Says

- The Carrot Cake Dance Mixed-Up Activity https://tinyurl.com/z253474e handout
- Scissors (not included)
- Glue sticks (not included)
- Elmo Says handouts

Center Activity: Mosaic Game

- Mosaic Game

PBS KIDS Games: Chicken Dance https://tinyurl.com/386x72xx and Dance Party https://tinyurl.com/4ppjv6k2

Procedure

Step 1:

Read From Head to Toe by Eric Carle. As you read to them, have the children do the movements depicted on each page. (Model controlled motions and personal space before beginning.) Point out the pattern of the book (I am a … and I… Can you do it?). Draw the students' attention to the illustrations that each depict an animal and a child side by side making the same motions. Ask the children if they notice a pattern in which part of their body they move as you proceed through the book (from head to toe). After reading the book, encourage the students to imitate the "I am a … and I… Can you do it?" pattern by suggesting additional animals and doing their movements (e.g., "I am a rabbit and I can twitch my nose. Can you do it?"; "I am a frog and I can jump with my ankles. Can you do it?"; "I am a hummingbird and I can blink my eyes. Can you do it?"; "I am an iguana and I can stick out my tongue. Can you do it?") Ask where in the story each of the suggested animals would go (e.g., the hummingbird, rabbit, and iguana would go at the beginning of the book since the body parts they are moving are on the face, and the frog would go toward the end.)

Step 2:
Have the students practice movement patterns and dance along to the following videos: Start with the simple pattern of "CeCe's Birthday Bash" [3 min, 8 sec] https://tinyurl.com/2wkvynuc. Next, watch "Step, Step, Bounce - The Dinosaur Problem" [37 sec] https://tinyurl.com/4vp5mc85. First, have the students do the movements while standing in place, and then let them parade around the classroom as they repeat the pattern. Following the parade, play the "Wombat Wiggle" [1 min, 29 sec] https://tinyurl.com/4p9sur56. Allow the kids to practice the pattern of the dance as each new character enters the house. Play the song again and invite different students to show the class their "Wombat Wiggle". Finally, play the "Elmo Slide" [2 min, 3 sec] https://tinyurl.com/3hcbzecz and have the students practice the more complex pattern of this dance.

Step 3:
Show the Carrot Cake Dance [50 sec) https://tinyurl.com/yxasz4ht, teach the children the pattern (chop the carrots, mix the batter, pour the batter, oven time, right foot kick, turn around) and have them practice the dance. Next, pass out the The Carrot Cake Dance Mixed-Up Activity handouts https://tinyurl.com/z253474e, scissors, and glue sticks and let the children reimagine the story with new elements. Finally, encourage the kids to make up a new dance like the Peanut Butter and Jelly Sandwich Dance, a S'more Dance, or a Pancake Dance. Help them think about what movements would go into making those things, the order they would go in, and how they would repeat.

Step 4:
Set up the Mosaic Game Center Activity. Children can freely explore making patterns or they can use the design cards provided for inspiration.

Step 5:
Allow time for the children to practice more patterns by playing the following PBS KIDS games, or share the links with parents so that the learning can continue at home:

- Chicken Dance https://tinyurl.com/386x72xx - In this Peg + Cat game, the kids help the chickens finish their dances by figuring out the correct steps to complete the patterns.
- Dance Party https://tinyurl.com/4ppjv6k2 - Daniel Tiger and the characters from the Land of Make Believe teach the children their favorite dances and ask the kids to follow the patterns and dance along.

Additional Ideas: "Watch Math and Movement: Pattern" [5 min, 12 sec] https://tinyurl.com/2rrkj5ey and copy the procedure by using large, colored dots placed on the floor to help your students create various movement patterns. The same type of thing could be done on the playground by using colored chalk to represent the movement cues. As an additional activity, play the Elmo Says game (or send it home to continue the learning there.)

Day 4 - Sound Patterns

Early Learning and Development Standards

Mathematics 3.c. Develops understanding of patterns

- Copies a repeating pattern
- Recognizes, duplicates and extends simple patterns

Overview of activities and materials needed

Book: Pattern Fish by Trudy Harris
PBS KIDS Videos: "Short-Short-Short-Long" [1 min, 26 sec] https://tinyurl.com/4vp5mc85 and "Rooster's Music Making Song" [3 min, 1 sec] https://tinyurl.com/3tx24u3t
Activity: Instrument and Sound Pattern Creation

- Kazoos: craft rolls, wax paper squares, rubber bands, and markers or crayons (not included)
- Maracas: plastic eggs, plastic spoons, dried beans, masking tape (not included) and markers (not included)
- Tamborines: paper plates, jingle bells, pipe cleaners, hole punch (not included), and markers or crayons (not included)

Center Activity: Musical Instrument Classified Cards https://tinyurl.com/yzvp9r53

- Instrument card set

PBS KIDS Games: Music Maker https://tinyurl.com/pbnwaz4h and Pinkamusical Garden https://tinyurl.com/mrycferu

Procedure

Step 1:
Read Pattern Fish by Trudy Harris. As you read, pause to let the children fill in the sound pattern before revealing the next page. Also let the students point out patterns they see in the illustrations. This is a good place to introduce students to the idea of different types of patterns: AB patterns (Yellow-Black), ABB patterns (Stripe-dot-dot), AABB patterns (Chomp-chomp-munch-munch), BBA patterns (Bubble-bubble-pop), ABC patterns (Stretch-spurt-glide), ABBC patterns (Wiggle-jiggle-jiggle-float), and ABCD patterns (Splash-turn-swish-dive).

Step 2:
Have the students practice the sound patterns in the following videos: Watch "Short-Short-Short-Long" [1 min, 26 sec] https://tinyurl.com/4vp5mc85 and see if the children can use their voices, a xylophone, a recorder, or a kazoo to make short-short-short long patterns. Watch "Rooster's Music Making Song" [3 min, 1 sec] https://tinyurl.com/3tx24u3t and have them sing along with the pattern in the chorus of the song. Reiterate that we can make music in a lot of different ways. Ask the children to identify some of the instruments the barnyard animals made themselves and what they were made of.

Step 3:
Help the students create instruments and make their own sound patterns. Here are some suggestions:
Kazoos - Use a rubber band to attach a square of wax paper to the end of a craft roll and use a pencil or scissors to poke a hole on the side of the tube one to two inches away from the wax paper end. To play, the children place their lips against the open end of the tube and HUM.
Maracas - Place dried beans in the plastic egg and attach two spoons on either side of the egg by wrapping masking tape around the length of the spoons
Tamborines - Punch holes around the perimeter of two paper plates. Attach the plates together with pipecleaners and jingle bells.
Have the students reproduce some of the patterns they saw in Pattern Fish by using different combinations of the instruments they have made (e.g., kazoo toot- tambourine jiggle, kazoo toot-tamborine jiggle or maraca shake-marca shake-tamborine jiggle, maraca shake-marca shake-tamborine jiggle).

Step 4:
Set up the Musical Instrument Sort Center Activity with the Musical Instrument Classified Cards. Children can freely explore making patterns with the instrument cards based on different sorting rules (e.g., loudness, tone, color, size, instrument family).

Step 5:
Allow time for the children to practice more patterns by playing the following PBS KIDS games, or share the links with parents so that the learning can continue at home:

- Music Maker https://tinyurl.com/pbnwaz4h - Children can experiment with patterns, record their own tunes, and jam alongside Peg, Cat, and their friends.
- Pinkamusical Garden https://tinyurl.com/mrycferu - In this game from Pinkalicious, the students tap flowers to hear different sounds and then place the flowers in empty garden spaces to create rhythms and melodies.

Additional Ideas: Watch and listen to “The Pattern Song: Sounds that Repeat!” [1 min, 55 sec] https://tinyurl.com/2enpcpus. Have the kids sing along and then create their own verses by selecting visual cues, assigning each a sound, and arranging them in a pattern.

Day 5 - Patterns in Stories

Early Learning and Development Standards

Mathematics 3.c. Develops understanding of patterns

- Copies a repeating pattern
- Recognizes, duplicates and extends simple patterns

Overview of activities and materials needed

Book: The Napping House by Audrey Wood
PBS KIDS Video: “Crystalini” [3 min, 34 sec] https://tinyurl.com/3udtj53j
Activity: Storytelling puppets https://tinyurl.com/y9bdxhtp

- Puppet handouts
- Crayons (not provided)
- Scissors (not provided)
- Craft sticks
- Tape (not provided)

Center Activity: Growing Patterns with Cards

- Deck of cards
- Cue cards

PBS KIDS Games: Step It Out https://tinyurl.com/mr2kmfmn and Froyo Stand https://tinyurl.com/utjdx3ea

Step 1:
Read The Napping House by Audrey Wood. As you read to them, have the children predict what is going to happen next. Have them look closely at the illustrations to see which animal will be next on the pile. Have them verbalize the pattern of both halves of the story (e.g. the smaller characters nap on larger ones in the first half and then smaller characters wake up the larger characters in the second half.) Ask the students what words the author repeats to create a rhythmic pattern in the story. Point out to the students the +1 pattern (growing), as we start from the beginning and repeat everything +1. Have the students identify the beginning, middle, and end of the story.

Step 2:
Show the video clip “Crystalini” [3 min, 34 sec] https://tinyurl.com/3udtj53j. Talk with the children about all stories having a pattern of a beginning, a middle, and an end. Have them identify these parts in the video. Have the students identify the problem Rosie is having and how her abuela helps her to remember the steps.

Step 3:
Have the students create storytelling puppets by cutting out the characters, coloring them, and attaching them to craft sticks with tape. Have the children recreate the pattern of “Crystalini” by retelling the story (beginning, middle and end) with their puppets.

Step 4:
Set up the Growing Patterns with Cards Center Activity. Using a plain deck of cards, children can sort the cards, classify the cards, or make patterns with the cards. Provide the cue cards to get them started.

Step 5:
Allow time for the children to practice more patterns by playing the following PBS KIDS games, or share the links with parents so that the learning can continue at home:

- Step It Out https://tinyurl.com/mr2kmfmn - In this game, children help the Wombat siblings put steps in order to make burritos, sand castles, and sandwiches and to get ready for the beach and serve a snack.
- Froyo Stand https://tinyurl.com/utjdx3ea - Children help Donkey Hodie fill froyo orders in this game by making the treats step by step in the correct order.

Additional Ideas: Watch this short video, "Story Emporium: Computational Thinking and Literacy" [2 min, 56 sec] https://tinyurl.com/ytj85efp, and investigate how the creators of Work It Out Wombats! break down stories with repetitive patterns (e.g. Old McDonald Had a Farm) into segments that are visually represented on puzzle pieces. The children then retell and add on to the story by following the pattern. Here is the procedure:

1. Teachers and students read a story with a repetitive and predictable pattern.
2. They use picture cards to break down the story into smaller elements, such as character and action.
3. They create a story-pattern chart, a visual representation of how the story elements repeat.
4. They follow along with the story chart to retell the story.
5. They use the same pattern but with different story elements to create a new story.

Here is another example using The Gingerbread Man (Part 1 https://tinyurl.com/4a3fu4p2, Part 2 https://tinyurl.com/yrycu9vd, Add-on 1 https://tinyurl.com/azw96tkb, Add-on 2 https://tinyurl.com/mr2s4hut)
Use these blank puzzle pieces https://tinyurl.com/yc8ndvwz to give the method a try with another story. Children can practice some of the same skills on their own by playing the Story Emporium game https://tinyurl.com/56d48574