Child Development Tracker

Your Four Year Old

Sponsored by LeapFrog

There is no one like your child

Every child's development is unique and complex. Although children develop through a generally predictable sequence of steps and milestones, they may not proceed through these steps in the same way or at the same time. A child's development is also greatly influenced by factors in his or her environment and the experiences he or she has. The information in this guide explains what child development experts consider to be "widely-held expectations" for what an average child might achieve within a given year. Please consider what you read in the context of your child's unique development.

Below is a snapshot of this year. For more in-depth information click on the specific areas of development in the menu at the left.

Shows for Your Four Year Old

Between the Lions
Berenstain Bears
Boohbah
Caillou
Clifford
Curious George
Dragon Tales
George Shrinks
Jay Jay
Mister Rogers
Sagwa
Sesame Street
Zoboomafoo
Arthur
Between the Lions
Franny's Feet
Mama Mirabelle's Home Movies
Martha Speaks
Sid the Science Kid
Super Why!
WordWorld

How your child may develop this year

- When it comes to learning, four-year-olds are developing greater self-control and ingenuity. Their pretend play is more complex and imaginative and can be sustained for longer periods. They can also make plans and complete tasks. Four-year-olds want to try new experiences. They also want to be more self-reliant and seek to expand the areas of their lives where they can be independent decision-makers.

- The language skills of four-year-olds expand rapidly. They begin communicating in complex and compound sentences, have very few pronunciation errors and expand their vocabularies daily. They can follow multi-step directions and understand explanations given for things they can see. Four-year-olds frequently initiate conversations and are less likely to change the subject of conversation to areas of personal interest. They are also getting better at sharing personal experiences without prompts from adults.

- Four-year-olds are building their knowledge of written language. They want to know what words in their environment say and can recognize many letters. By the end of this year, many children understand that letters represent the sounds in spoken words and may associate some letters with their sounds. Most children also are capable of writing some legible letters and know that writing goes from left-to-right and top to bottom.

- Four-year-olds have an increased capacity for learning math concepts. They use logical reasoning to solve everyday problems and can effectively use language to compare and describe objects and shapes. They can count to "ten," recognize written numerals "0" to "9" and add and subtract using numbers up to "four." Four-year-olds know some variations of a circle, square, triangle and rectangle. They know days of the week, months and the seasons, but still cannot tell time.

- Children this age can engage in long periods of active play and exercise. They are skillful at walking, climbing, jumping, hopping, skipping, marching and galloping. They also are better able to throw, catch, kick and bounce balls. Improved finger dexterity allows them to hold writing tools with a more mature, tripod grip. Advances in hand-eye coordination help four-year-olds do puzzles, play with toys that have small parts and dress and undress without assistance.

- Four-year-olds approach the world with great curiosity and use their imaginations to help understand it. Hands-on explorations help them to separate reality from fantasy. They can participate in the planning and implementation of simple scientific investigations and over the course of the year, will increase their abilities to make observations, gather information, compare data, identify patterns, describe and discuss observations and form explanations and generalizations.

- Emotionally, four-year-olds continue to learn what causes certain feelings and realize that others may react to the same situation differently. They have learned to better manage intense emotions with coping strategies like talking it out or drawing a picture. Four-year-olds also show further progress in their social interactions with peers, such as by smoothly joining in a group play situation, being sympathetic to others, or suggesting ways to resolve conflicts.

- In exploring the creative arts, children this age can identify changes in pitch, tempo, loudness and musical duration. They can sing songs of their own creation as well as memorized ones. Their art begins to be more realistic and may incorporate letters. Four-year-olds love to dance and are able to move rhythmically and smoothly. Their dramatic play is highly imaginative and now has the structure of specific scenarios, like going to the grocery store or rescuing a cat stuck in a tree.

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Approaches to Learning

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Research shows that if children start school with a strong set of attitudes and skills that help them "learn how to learn," they will be better able to take advantage of educational opportunities. While some learning skills come naturally to children, others can be developed through a supportive environment.

Tips for building learning skills:

- **Let them choose.**
  Give kids a chance to make simple choices, such as what to wear or what to eat for a snack.
- **Help them finish what they start.**
  Children experience great satisfaction when they try and finish new things. Give them a bit of support when they need it, but be careful not to take over completely.
- **Nurture creativity.**
  Encourage children to ask questions, try different ways of using materials, or offer them a wide range of new experiences.
- **Don't rush activities.**
  Whether at home or in preschool, children need extended periods of time to really get involved in activities and to experience the "engagement" that is such an important foundation for learning.
- **Provide encouragement.**
  All children start life eager to learn, but if adults are critical, that eagerness may disappear by the elementary grades. Look for achievements to praise and acknowledge your child's progress whenever possible.

Supporting Activities
Arthur
Gather the clan to put on a folktale play. Stretch Your Imagination

Books for Your Child
Reading to children every day is a great way for them to learn new skills. Try these read-aloud concept books for preschoolers.

When it comes to learning, four-year-olds are developing greater self-control and ingenuity. Their pretend play is more complex and imaginative, and can be sustained for longer periods. They can also make plans and complete tasks. Four-year-olds want to try new experiences. They also want to be more self-reliant, and seek to expand the areas of their lives where they can be independent decision-makers

Initiative, Engagement, and Persistence

- Further expands areas of decision-making (e.g., child may say, "This morning I'm going to work on my Lego building.").
- Has an increased ability to focus attention, and can ignore more distractions and interruptions (e.g., at preschool, can focus on a drawing even when other children are nearby; might say, "I'll play with you later. I want to finish this.").
- Is increasingly able to complete tasks, even those that are longer-term and less-concrete (e.g., keeping track of the days until his or her birthday on a calendar). Has greater ability to set goals and follow a plan (e.g., child says, "I'm going to pick up all these branches," and then works until it is done).
- Increasingly makes independent choices and shows self-reliance (e.g., chooses clothes, feeds and dresses self).

Curiosity and Eagerness to Learn

- Asks to participate in new experiences that he or she has observed or has heard of others participating in (e.g., says, "Jack goes fishing. Can I?").
- Asks questions about future events, as well as about the here and now (e.g., asks, "When will we go to Sarah's house again?").
- Starts to show more enthusiasm for learning letters, shapes, and numbers (e.g., while looking at a book with dad, points to a word that contains the letter "S" and says, "S! That's in my name! What is that word?").

Reasoning and Problem-solving

- More flexible and able to draw on varied resources in solving problems (e.g., tries to build a large structure with blocks, but the building keeps falling down. After several failed attempts, he or she tries making a larger base. May also look at how other children have made their buildings.).
- Seeks help from both adults and peers, and has a greater understanding of the kind of help that may be needed (e.g., says, "Can you hold this end of the string for me, so I can tie this?").

- Grows in ability to understand abstract concepts, especially when his or her thinking is supported by physical interaction with materials (e.g., systematically pours sand into measuring cups, then looks at and comments on amounts).

Invention and Imagination

- Engages in more sustained and complex pretend play (e.g., creates a long scenario with several other children, taking a pretend trip with many stops). Expands the roles acted out in pretend play. Is less dependent on realistic props.

- Offers creative, unusual ideas about how to do a task, how to make something, or how to get from one place to another (e.g., says, "I've got a great idea! Let's walk backwards to the kitchen!").

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Creative Arts

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Four-year-olds can identify changes in pitch, tempo, loudness and musical duration. They can sing songs of their own creation as well as memorized ones. Their art begins to be more realistic, and may incorporate letters. Four-year-olds love to dance, and are able to move rhythmically and smoothly. Their dramatic play is highly imaginative and now has the structure of specific scenarios, like going to the grocery store or rescuing a cat stuck in a tree.

Music

- May seek out opportunities to hear different genres of music representing different cultures (e.g., listens to reggae music on headphones after being read a story about Jamaica).
- Sings complex songs and plays an instrument alone as well as with group (e.g., learns newly introduced songs by memory in a day or two).
- Uses music to reflect thoughts and feelings (e.g., starts buzzing like a bee while looking through a storybook on insects).
- Regards music as a part of daily life (e.g., gets out mat for nap upon hearing soft music being played, puts away toys when clean-up song is sung).
- Can understand basic principles of tone, tempo, genre, pitch, etc. (e.g., can describe which songs are fast and slow or high and low).

Art

- Begins to create art that is more realistic and includes some details of objects, animals or people. Such details are typically remembered features that have made an impression, but do not include all that is seen or known (e.g., draws a picture of a car with four wheels but no windows).
- Uses art to reflect thoughts and feelings (e.g., transforms a list of favorite foods that his teacher had recorded on paper into a mobile from which illustrations of these foods are hung).
- Builds on knowledge of basic art techniques to do activities like printing, etching, puppetry and weaving (e.g., joins in a preschool class project to weave ribbons into a back fence).
- Can describe what is is pleasing about others' artwork and how the art makes him or her feel (e.g., finds pleasure in the bright colors and bold lines of Andy Warhol's artwork viewed on a trip to a museum).

Movement

- Imitates the movements of different people, animals and objects on request (e.g., moves like an elephant, a frog and a field of wheat when asked to do so).
- Uses movement and dance to reflect thoughts and feelings (e.g., performs an interpretive dance when asked, â€œShow me with your body how this music makes you feel.")
- May understand and be able to explain the importance of movement to one's personal well-being (e.g., says, "My daddy runs because it's good for his heart.")

Dramatic Play

- Explores the world beyond the home and classroom through dramatic play scenarios (e.g., recreates space travel seen on TV by pretending to be an astronaut).
- Communicates thoughts and feelings through role playing (e.g., play acts being a kitten seeking affection and hugs).
- Uses objects as symbolic props (e.g., places a shell on top of a dollhouse and declares it to be a satellite dish).

Supporting Activities

Arthur
Introduce your child to Jackson Pollock's action painting and see what you both create. Be An Action Painter!

Caillou
Show your child how to compose original music while typing out words. Caillou's Magic Keyboard

Mister Rogers
Provide your child with oodles of different materials and see the creative juices flow! Creativity Unlimited

Dragon Tales
Kids can create their own music and then watch Zak and Wheezie dance to their tunes. Dragon Music Machine

Books for Your Child
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Language

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The language skills of four-year-olds progress rapidly. They begin communicating in complex and compound sentences, have very few pronunciation errors and expand their vocabularies daily. They can follow multi-step directions and understand explanations given for things they can see. Four-year-olds frequently initiate conversations, are less likely to change the subject of conversation to areas of personal interest and are getting better at sharing personal experiences.

Supporting Activities

Sesame Street
Play an online rhyming game with Elmo. Splat! A Fat Rat on the Cat's Hat

Dragon Tales
Kids practice following multi-step instructions. Buried Treasure in Dragon Land

Arthur
Build self-esteem and language skills! Good for You!

Books for Your Child
Reading to children every day is a great way for them to learn new skills. Here are some great read-aloud books for preschoolers.

Receptive Vocabulary (words recognized when heard or seen)

- At 48 months, understands 2500 to 3000 words. Acquires an average of 2000 additional words during this year.
- The average child has the capacity to acquire four to six words per day, given access to new words in his or her daily experiences.
- Continues to learn words when adults name objects, and increases ability to infer word meanings from context. Many new words are also learned through new experiences, and from hearing picture books read aloud.
- Expands known words for various conceptual clusters (e.g., seed, stem, leaf, roots, bark, trunk; wing, beak, feathers; fins, gills, scales; button, zipper, snap, buckle; shoes, boots, sandals, slippers; moon, sun, stars, clouds).
- Also, learns more time words (e.g., yesterday, today, tomorrow, next week, weekend, morning, afternoon, night), money words (e.g., penny, nickel, dime, quarter, dollar), mental state words (e.g., know, don't know, forget, remember, wonder) and complex emotion words (e.g., disappointed, surprised, proud, perplexed, frustrated, curious, delighted).
- Becomes more precise in the words used to communicate (e.g., toppled, dove, raced, scampered, fluttered, soaked, brittle, fragile, sturdy, bold, timid, skeleton).

Language Comprehension

- Begins to understand figures of speech (e. g., "quick as a wink", "slow as molasses").
- Follows multi-step directions in novel situations, especially when the next action follows naturally from the previous action (e.g., "Okay, find the corner of the pudding packet that says 'cut here.' Use your scissors to cut right on the dotted line you see there, and then dump the pudding powder into your bowl.
- Increases ability to understand explanations when concrete objects and actions support the verbal explanation, and phenomena are directly observable (e.g., "When we mix colors, we get a new color. See what color you get when you mix yellow with blue."). Begins to understand explanations of events that have not been experienced directly, as long as the child has had similar experiences.

Speech Sound Perception

- Perception of speech sounds that aren't used in native language continues to decrease. Exposure to a second or a third language helps children to continue to perceive a wider range of speech sounds, making learning a second language easier.
- Uses appropriate levels of volume, tone and inflection.

Expressive/Productive Vocabulary (words used when speaking or writing)

- From age three on, it is difficult to measure actual productive vocabulary, but the number of words that children understand is always larger than the number of words they actually use. As children understand more words, there will be changes in the nature of the words children use for speaking and writing.
- A lack of detailed vocabulary leads children to use words that are more general or are descriptions of contexts. For example, a child might call a skeleton a "monster," or may say, "the bones in your body." A child might say "card" for a card that is an invitation. A child might say "snake" for an animal that is a lizard. A child might say, "It's for your bicycle.", when referring to a picture of a bicycle tire.

Pronunciation

- Very few pronunciation errors in most children.

Grammatical Development

- Begins communicating in complex and compound sentences, and has mastered most rules related to sentence structure.
- Makes fewer mistakes with irregular words in the past tense and in plural form. May continue to make errors with words heard infrequently.

Sharing Personal Experiences

- Initiates the telling of personal experiences and tells more complete stories from the start. Prompts may still be needed to provide details to someone unfamiliar with the event. Or a child may include a lot of unessential details. Often begins the story by telling about events in sequence, but then jumps around to fill in more details. (The skill of sharing personal experiences is highly dependent on practice, and on how well adults provide guidance in current and previous years.)

Conversational Skills

- Initiates conversations frequently.
- Finds it easier now than in the previous year to wait for a turn in a group conversation.
- Still tends to want to use turn to relate information of personal interest regardless of topic established, but topic maintenance has improved from the previous year, and continues to improve during this year.
- Has more skill now in talking on the phone because of an increased ability to talk about events in the recent past, as opposed to things in the "here and now."

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Literacy

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Four-year-olds are building their knowledge of written language. They want to know what words in their environment say, and can recognize many letters. By the end of this year, many children understand that letters represent the sounds in spoken words and may associate some letters with their sounds. Most children also are capable of writing some legible letters, and know that writing goes from left-to-right and top to bottom.

Phonological Awareness (awareness of sounds)

- Increases conscious awareness of rhyme and beginning sounds, and becomes skilled in generating more words that rhyme or that begin with the same sound as a word spoken by an adult. By the end of this year, many children can easily generate a series of 4-5 rhyming words and name 4-5 words that begin with the same sound. They can also isolate the beginning and ending sounds in words, and can form words by blending initial consonant sounds with vowel and consonant sounds that follow (e.g., (sh--op) shop, (c--at) cat, etc.). Some children are able to use this awareness of sounds to create invented spellings of words they wish to write. For most children, it is easier to separate a single consonant from the beginning of a word than to separate consonant blends that begin a word (e.g., "fl-", "pr-", etc.).

- Developing an awareness of sounds can be encouraged by frequent exposure to nursery rhymes, songs and poems that contain rhyming words, and by adults explicitly labeling these as "rhymes" for the child. Adults can also point out words that begin with the same sound, sound out words for the child, and play games with rhyming words and words that begin with the same sound.

- Oral vocabulary size indirectly affects a child's ability to break words down into sounds and segments. A larger vocabulary requires the unconscious mental storage of words in segments when a number of words sound alike (e.g., slip, slap; clap, clip; string, strong). This apparently makes it easier for a child to develop a conscious awareness of speech sounds, and then detect and manipulate these in words.

Book Knowledge and Appreciation

- By the end of this year, many children know that the names of the author and illustrator are on the cover of the book, along with the title of the book. Holds a book right side up based on knowledge of the proper positions for objects pictured.

- During this year, many children pay attention to fairly long stories that are read skillfully with expression. Most children this age lose interest if a story is interrupted by questions from adults. Discussions are tolerated better after a story has been read.

- Almost all children have memorized several, familiar, predictable text books, and can recite these, word for word, using pictures to prompt recall.

- By the end of this year, many children can retell fairly long, familiar stories. They get events in order, and provide considerable detail. Organizing thoughts and summarizing are not yet highly-developed skills in most children this age. As a consequence, a child may go back and fill in details, and may take a while to formulate thoughts when retelling a story. In addition, children improve their abilities to predict what happens next in a story (using illustrations and prior knowledge as a guide). They also begin to understand the literal meaning of plays, poems, and stories and may act out stories in dramatic play.

- Many children ask all kinds of questions, and make evaluative comments about characters' actions (e.g., "That wasn't very nice!"). Children become better able to respond to questions for which little information is provided by the text, and to which children bring less personal experience.

- During the year, begins to connect specific authors with specific books, and to recognize multiple books by the same author.

- Further development of appreciation of different kinds of books. Knows to seek out information in non-fiction books. By the end of this year, children have a good understanding of fiction and non-fiction, and of fantasy fiction versus realistic fiction.

- Interest and enjoyment of books is highly variable, depending on availability of books and whether adults spend time sharing these with children in positive ways. May choose books from among things available to entertain self. Shows strong preference for familiar books when using books independently, but may also show interest in books that have not been read aloud. May request visits to the library to get books if library use has been encouraged by adults.

Print Awareness and Concepts

Supporting Activities

Mister Rogers

Find pictures to tell a neighborhood story. My Neighborhood Story

Make a bookmark to show your love of books! Bookmark Art

Help your child write and illustrate a first book Book Brainstorm

Arthur

Help your child create poems about favorite places. Poetry Places

Practice reading skills and learn a little Spanish. Rojo is Red

Reading and Language

See and hear how reading develops. Learning to Read

Books for Your Child

Reading to children every day is a great way for them to learn new skills. Here are some great read-aloud books for preschoolers.

- During this year, begins to base judgments about "wordness" based on specific graphic elements used, rejecting as words any string that contains anything other than letters. By the end of this year, most children know that numbers are not letters. Some children begin to see that space separates printed words. Many children know that there are two forms of each letter â€" uppercase and lowercase.

- Many children begin to ask where in a book a word they have heard read aloud appears. They also ask what words in their environment say. When children attempt to read print they see in the environment, or pretend to read favorite stories, most follow lines of print by sweeping their finger from left to right and from top to bottom of a page, but do not point to individual words. By the end of this year, a few children use their fingers to point word for word as they read text in familiar predictable books.

Writing

- Continues to improve the form of marks intended as letters. By the end of this year, most children can create some well-formed letters. Many children create good approximations to all uppercase letters. Overruns at the junctions of line segments, departures from the typical scale of various lines in a letter, and repairs due to a child's inability to plan for available space make writing look "immature" even though marks can be interpreted fairly accurately by adults and other children.

- Many children begin to use lowercase forms of some letters in their writing, but they are often less well formed than the uppercase letters they can write.

- By the end of this year, a few children continue to create letter-like designs, or mock letters, and do not regard this writing as "pretend." Most children do not use mock letters when they write "for real," although they do create such marks in pretend play.

- For many children during much of this year, immature fine motor skills continue to place limits on the ability to write smaller versus larger, and to combine lines precisely. By the end of this year, many children can grip a writing tool with fingers in an approximation to a mature tripod grip, but some children do not.

- Lack of knowledge of letters (visual images), and lack of experience in mark making, are now the major factors that differentiate children with considerable skill in creating designs that have the features of specific alphabet letters from children with less skill.

- Most children begin writing left-to-right and top to bottom during this year, although they don't when they run out of space, especially on a small piece of paper. In such cases, they simply fit the writing in where there is space, without concern for where the letters should be.

- Some children may put space in between words if they write a sentence or a phrase, but many children run one word into the next.

- Expands understanding of the uses of writing. Children write stories, notes to friends, labels for displayed artwork, observations of science phenomena, and create print props needed for their play (e.g., tickets, menus, signs, grocery lists, information for "babysitters"). Demonstrates knowledge that writing is formatted differently for various purposes (e.g., organizes a list differently than a letter or a story).

- Many children continue to string letters together to create mock words during much of this year. For a while during this year, some children write words they sound out by writing a letter for each syllable.

- By the end of this year, some children understand that letters function to represent the sounds in spoken words. Many children can select an appropriate letter to represent a sound that an adult isolates in a word the child wishes to spell, especially if there is a letter name match.

- By the end of this year, many children can write a few words correctly from memory (e.g., their name and the name of a close friend or two; and common words, such as No, Yes, Love, Mom, Dad, and Dear).

- By the end of this year, a few children can isolate the beginning and ending sounds in words, as well as a dominant sound in the middle, and invent spellings for these words.

- During this year, most children gain considerable skill in relating personal experiences for adults to write down. Most fictional stories that children compose orally are not plotted narratives, but rather a series of somewhat unrelated events without problems that are resolved. Children also develop skills in recording information they observe, such as in science explorations.

- Developing the skills to compose messages is influenced by verbal interactions with adults that support the telling of recent personal experiences. Other influences include opportunities to draw pictures about recent experiences, chances to tell adults about their drawings and seeing adults writing about what they observe. Help children make their own observations and encourage them to write about what they see. Also, provide them with opportunities to experiment with different kinds of writing tools and materials such as pencils, crayons, and computers.

Alphabet Knowledge

- By the end of this year, many children (60%) know more than half of the uppercase alphabet letters and 5-10 lowercase letters, some children (30%) know all uppercase and many lowercase letters, and a few children (10%) still know fewer than half of the uppercase letters. Children notice letters in familiar words and the environment.

- By the end of this year, many children understand that letters function to represent the sounds in spoken words and may associate the names of some letters with their sounds. (They have acquired the insight known as the "alphabetic principle.") Also by the end of this year, most children understand that numbers are not letters, given that they function uniquely (i.e., are not used to represent sounds in words; are used to designate quantity). Highly similar lowercase letters (e.g.,"p" and "q," "b" and "d") are confused by many children.

- Learning the alphabet can be encouraged by attending preschool, playing with alphabet letters and alphabet puzzles, having adults name letters and read alphabet books and watching educational television. Help children write their own names, if interested, and have plenty of writing and drawing materials available.

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Mathematics

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Four-year-olds have an increased capacity for learning math concepts. They use logical reasoning to solve everyday problems, and can effectively use language to compare and describe objects and shapes. They can count to "ten," recognize written numerals "0" to "9," and add and subtract using numbers up to "four." Four-year-olds know some variations of a circle, square, triangle and rectangle. They know days of the week, months, and the seasons, but still cannot tell time.

Numbers

- At age four, some children may still be gaining an understanding of the number words up to "four" (e.g., distinguishes one-four items from "many"; can identify collections of up to four items with a corresponding number; asks for up to "four" of something; knows age; can put out "one," "two," "three," or "four" items upon request).
- While some children at the beginning of this year are still learning how to verbally count by ones in the correct order up to "five," the average child can count up to "ten," and possibly beyond, but not necessarily in the correct order. A few four-year-olds will be able to use the "teen" counting pattern to accurately count up to "twenty." In the second half of this year, there may also be a few children who use repeating patterns to correctly count up to "forty-two."
- At the beginning of this year, some children may still be learning how to accurately determine the number of items in a collection of up to five items using one-to-one counting, or "enumeration" (i.e., the child labels each item in a collection with one and only one number word from the counting sequence to determine the total number of items in the collection). A few may be able to do so with a collection of up to ten items. Also, the average child recognizes that the last number word used to count (enumerate) a collection has special significance because it represents the total number of items in the collection.
- Around the fourth birthday, the average child will accurately count out up to five items in response to a verbal request. Some children may be able to accurately count out up to ten items, and a few may be able to count out up to 20 items.
- The average child can verbally start counting from a number other than "one" during the second part of this year. Some children may be able to do this earlier in the year.
- At the beginning of this year, the average child can name a number that comes after a specific count term from "one" to "nine" when given a running start (e.g., "What comes after 1, 2, 3, 4, 5?"). Some children will also be able to name a specified count term between "one" and "nine" without being given the preceding sequence. Finally, a few children will be able to name the number after a specified count term between "ten" and "40."
- During the second half of this year, some children will be able to name a number that comes before count terms from "two" to "ten" (e.g., What number comes before "three"?).
- In the second half of this year, a few children will be able to verbally count backwards from "five" or "ten," and/or count by tens up to "100."
- A very small number of children will understand terms related to estimation (e.g., "about," "near," "closer to," "between," "a little less than") around age four-and-a-half.
- In the second half of this year, some children will make a reasonable estimate of the number of items in a collection involving up to five items, and a few children may be able to do this with a collection of up to ten items.
- At the beginning of this year, some children may still be learning how to use the size words "more" and "fewer" to identify the larger of two obviously different-sized collections. A very small number of children will also be able to use formal relational terms correctly, such as "greater than," "less than," and "equal to."
- At the beginning of this year, some children may be able to determine which of two numbers less than "ten" and widely separated in the counting sequence (e.g., "nine" and "three") is "more" by understanding the "larger-number principle" (i.e., the later a number appears in the counting sequence, the larger the quantity represented). The average child will successfully make such determinations during the second half of this year. Some older fours may even be able to determine which of two numbers widely separated in the counting sequence is "less."
- During the fourth year, some children may begin to use the larger-number principle and number-after knowledge to determine which of two "neighboring" numbers (e.g. "three" and "four") in the counting sequence is "more," working with numbers up to "five," and in the second half of the year, working with numbers up to "ten" (e.g. "Which number is more, 'seven' or 'eight'?").

Supporting Activities

Mister Rogers

Children learn objects come in many different sizes. Little and Big

Boohbah

Use rope to measure things around the house. Rope Rulers

Do addition and subtraction at home and at the store. It All Adds Up!

Books for Your Child

Reading to children every day is a great way for them to learn new skills. Try these read-aloud concept books for preschoolers.

- In the second half of this year, some children will be able to use a mental number line to determine the relative proximity of one-digit numbers (e.g., recognizes that "five" is closer to "three" than to "nine").

- At the beginning of this year, the average child will be able to understand and effectively apply the ordinal terms "first" and "last."

- During this year, a few children may start to draw objects, make a tally, or use some other informal symbol to represent a spoken number.

- A very few children may begin to use informal and symbolic representations (e.g., drawings of objects, a tally, etc.) to represent the number of items in a collection up to "nine."

- At the beginning of this year, some children will be able to recognize or read numerals "0" to "9" (e.g., is able to point out a "three" given a choice of five numerals, or identifies the numeral "3" as "three"). The average child will be able to recognize these numbers in the second half of this year. Some children may be able to copy or write numerals "0" to "9." Throughout this year, some children may be able to connect at least some numerals to both number words and the quantities they represent (e.g., uses one-digit written numerals to represent the value of a collection, identifies the larger of two written numerals, recognizes that "0" can mean "none").

Operations on Numbers

- During the first half of this year, the average child will be able to nonverbally and mentally determine sums up to "four" and their subtraction counterparts (e.g., "3 + 1," "4 - 1," "2 + 1," "3 - 2").

- Some children will still be learning how to use informal knowledge gained from everyday experiences to nonverbally estimate sums up to "five" (e.g., for "3 + 2," puts out four to six items to estimate the answer) and their subtraction complements (e.g., for "5 - 2," puts out around three items to estimate the answer). In the second half of this year, some children will be able to use informal knowledge to estimate the sums of addition word problems or their subtraction complements up to "ten."

- Throughout this year, some children will be able to use concrete counting strategies to solve addition word problems (e.g., for a problem involving three and two more, the child counts out three items, puts out two more items, and then counts all the items to determine the answer) and concrete take away strategies to solve subtraction word problems (e.g., for a problem involving five take away two, counts out five items, removes two, and counts the remaining three items to determine the answer) with sums up to "ten" and corresponding differences.

- In the second half of this year, some children can use various addition strategies to mentally determine sums up to "nine."

- In the second half of this year, some children can use existing knowledge and reasoning strategies to logically determine unknown sums up to "18" and their subtraction counterparts, including the "additive and subtractive identity" rule (e.g., "n + 0 = n" and "n - 0 = n"), the" number-after" rule (e.g., "7 + 1" equals the number eight when we count), and the notion that addition doubles have an even sum or form part of the skip count by two's sequence (e.g., "3 + 3 = 6," "4 + 4 = 8," "5 + 5 = 10"...).

- During the first part of this year, some children may still be learning to understand that if you change the size of a part of a collection, then you also change the size of the whole collection. Throughout this year, some children may intuitively recognize that adding to a collection creates a sum greater than the starting amount.

- During the second half of this year, a few children will see that a part is less than the whole as they solve addition word problems (e.g., Bret had three cookies. His mother gave him some more, and now he has five cookies. How many cookies did Bret's mother give him?). A few children will also see that the whole is larger than its composite parts as they solve subtraction word problems (e.g., Chico had five cookies. He ate some, and now he has three left. How many cookies did Chico eat?).

- During the second half of this year, a few four-year-olds can use up to ten objects to construct number partners up to "5" (e.g., 5 = "1 + 4," "2 + 3," "3 + 2," "4 + 1"), and doubles partners up to "10" (e.g., "3 + 3 = 6").

- During the second half of the year, a few children will understand the "part-whole" relationship of addition and will be able to informally solve "part-part-whole" word problems that have a missing whole and sums up to "10" (e.g., Deborah had five chocolate chip cookies and three ginger snap cookies. How many cookies did she have altogether?).

- During the first half of this year, the average child will trade several small items for a larger one (e.g., trades four small candies for a candy bar). Throughout this year, some children will group objects into 5's or 10's, and recognize that the position of a digit in a number affects its value (e.g., recognizes that "23" and "32" are different). During the second half of this year, some children can break down a larger unit (especially "10" and "100") into smaller units, and can combine smaller units into a larger unit.

- During the second half of this year, a few four-year-olds will be able to accurately read multidigit numerals up to "19." At the same time, a very few children may even be able to accurately read multidigit numerals up to "99."

- During the second half of this year, a few four-year-olds may be able to write multidigit numerals up to "99" (e.g., writes "twenty-four" as "24" and not "204").

- During the second half of this year, there may be a small number of four-year-olds who can meaningfully represent multidigit numerals up to "100" in different forms, such as with numerals and grouping/place-value models (e.g., recognizes that "2" in "27" represents two "tens" and "7" indicates seven "ones").

- During the second half of this year, a few four-year-olds will be able to use informal strategies to solve "divvy-up/fair-sharing" problems where up to "10" items are distributed evenly to two or three people (e.g., if Este and Freeha share fairly the "12" cookies they baked, how many cookies would each get?).

Geometry and Spatial Sense

- During the first half of this year, some children may still be learning to match shapes, first with same size and orientation, then with different sizes and orientation (e.g., matches simple shapes in form boards and puzzles, sorts simple shapes in a sorter box, etc.). At the same time, some children may be able to recognize and name some variations of a circle, square, triangle and rectangle. The average child can recognize and name these shapes during the second half of this year.

- During the first half of the year, some four-year-olds can build, copy and informally describe two-dimensional shapes. The average child can do this during the second half of the year. Throughout the year, some children will also be able to copy a shape from memory after seeing a model for several seconds.

- In the first half of this year, some four-year-olds will intuitively recognize congruence by matching shapes with other objects that have the same shape and size. The average child will be able to do this during the second half of this year. During the second half of this year, a few four-year-olds can explicitly define the term "congruent" as two shapes with the same size and shape.

- Throughout the year, children can complete increasingly complex puzzles (e.g., four-piece interlocking to eight- or ten-piece puzzles, to puzzles with smaller and up to 15 pieces) and progress in their abilities to put together and take apart shapes (e.g., understands that a whole object such as a pizza can be separated into parts). Children also build three-dimensional structures using multiple types of items (e.g., a rectangular prism, cube and arches). In the second half of the year, some children may create drawings that involve more than two geometric forms.

- In the first half of the year, some children may still create pictures using one shape, but won't yet use shapes in combination. Others may make a picture by combining shapes. By the second half of this year, the average four-year-old will be able to combine shapes to form a picture. Throughout this year, some children may also be able to cover an outline of a shape with other shapes without leaving gaps, first with trial-and-error, and then with foresight.

- Throughout the year, some four-year-olds can break apart simple two-dimensional shapes that have obvious clues for breaking them apart.

- Throughout the year, some children can find some shapes "hidden" in arrangements in which the shapes overlap each other, but are not embedded inside one another.

- Throughout this year, some four-year-olds will understand and use words representing physical relations or positions (e.g., "over," "under," "above," "on," "beside," "next to," "in front," "behind," "in," "inside," "outside," "between," "up," "down," top," "bottom," "front," "back," "near," "far," "left," "right").

- During this year, the average child can use a model of a room or simple picture maps to locate where an object is hidden in a real room.

- During the first half of this year, some four-year-olds will be able to orient objects vertically or horizontally. The average child will be able to do this during the second half of the year.

- Throughout this year, some four-year-olds will informally recognize when a two-dimensional shape has been turned, flipped or otherwise moved, and will also move such shapes in this way.

- During the first half of this year, the average child can informally create two-dimensional shapes and three-dimensional buildings that have symmetry.

Measurement

- During the first half of this year, some four-year-olds will still be discovering attributes of objects by filling a container with solids or liquids (e.g., ice cubes or water). These children will also figure out that different sized containers will hold more or less.

- During the first part of this year, the average child will recognize, informally discuss, and develop language to describe attributes such as "big" or "small" (height/area/volume), "long" and "tall" or "short" (length/height), "heavy" or "light" (weight), and "fast" or "slow" (speed).

- Throughout this year, some children will still be learning the concepts of "same" and "different," as well as how to describe the ways in which items are the same or different. Also during the first half of this year, some children compare a single attribute of several objects (e.g., The child says, "She has a bigger piece of cake than I do."). The average child makes such comparisons during the second half of this year. During the first half of this year, some children can order objects from smallest to largest (e.g., lines up from shortest to tallest, nests cups, etc.) and describe relationships among objects (e.g., "big," "bigger," "biggest"). The average child develops these skills during the second half of this year.

- Throughout the year, some children may still be developing their sense of time through their participation in daily activities (e.g., knows the basic sequence of the day). By the end of this year, children should understand daily time concepts like "morning," "afternoon," "night," "earlier," "later," and "soon." Children should also be able to identify basic concepts associated with night/day and seasons, but may still confuse "yesterday," "today," and "tomorrow." During the first half of this year, some children can recite the days of the week and seasons, but cannot tell time. Some children this age also recognize that a specific time is associated with certain events (e.g., favorite TV show comes on at 4:00). The average child understands these things during the second half of this year. Finally, during the second half of this year, some children will have developed a strong sense of time and will know when events close to them take place. They will know the days of the week, the months, and the seasons, but will still be learning how to tell time.

- During the first half of this year, some children may solve a problem by comparing lengths directly (e.g. placing two sticks side by side to see which is longer). The average child does this during the second half of this year.

- During the first half of this year, some children may compare the areas of two objects by placing one object on another. The average child does this during the second half of this year.

- Throughout this year, some four-year-olds will make informal comparisons and estimates (e.g., says, "I'm as tall as the yellow bookshelf.").

Patterns, Reasoning, and Algebra

- During the first half of the year, some children will understand a sequence of events when it is clearly explained (e.g., parent says, "First we plug the drain, then we run the water, and finally we take the bath."). The average child shows such understanding during the second half of this year. In addition, children during the second half of this year recognize regularities in a variety of contexts (e.g., events, designs, shapes, sets of numbers).

- Throughout this year, some children can identify the "core" of simple repeating patterns (i.e., the basic sequence or building block that is repeated) and extend the pattern by replicating the core (e.g., for the pattern "red/blue/red/blue/red/blue," the child will add "red/blue"). Children show varying levels of progress with this skill through age six. This development is also true for when children imitate pattern sounds and physical movements (e.g., clap, stomp, clap, stomp...).

- During the second half of this year, a few four-year-olds will discover the concepts of "even" numbers (i.e., a number of items that can be shared fairly between two people), and "odd" numbers (i.e., sharing between two people results in a leftover item).

- During the second half of this year, a very small number of four-year-olds may be able to use letters to represent the "core" of a repeating pattern (i.e., the basic sequence or building block that is repeated) of up to "three" elements (e.g., "ABC" for "123123123...").

- Throughout this year, a few four-year-olds may begin to summarize with natural language the ideas of "additive identity" (e.g., says, "You did not add anything, so it is still the same"), "subtractive identity" (e.g., says, "You did not take anything away, so it is still the same"), and "subtractive negation" (e.g., says, "You took it all; there is nothing left."). During the second half of this year, a small number of children may also summarize "additive commutativity" (e.g., says, "You can add numbers in any order.").

- During the first half of the year, the average four-year-old will be able to use deductive reasoning (using what we know to logically reason out a conclusion about what we do not know) to solve everyday problems (e.g., figures out which child is missing by looking at children who are present).

- During the first half of this year, some children will move beyond using arbitrary rules (e.g., creating a category for "because I like it") to complete an adult-imposed classification task. Instead, these children can stick with one feature (e.g., color, shape, size) in sorting objects into a class. The average child can stick with one feature when classifying during the second half of this year. Throughout this year, a small number of children will be able to sort and classify on the basis of one or more characteristics (e.g., color, size, etc.), and can articulate why items are grouped together.

- During the first half of this year, some children will be able to reason "transitively" (e.g., if Abby is older than Betsy, and Betsy is older than Charlene, then Abby is also older than Charlene). The average child can reason this way during the second half of this year. A small number of children throughout the year will also be able to sequence events chronologically.

Statistics and Probability

- During this year, some children will recognize that some questions, issues, or areas of disagreement are "empirical questions" that cannot be answered without first collecting data. Also, children will be able to collect relevant data for addressing a question or making a decision of personal importance.

- Throughout this year, children will learn to organize and describe data (e.g., by constructing real or picture graphs) to address a question (e.g., What eye color is most common in the family?) or make a decision of personal importance (e.g., Which ice cream shop has the most flavors?).

- Children will develop skills to read and interpret real graphs or picture graphs that summarize information needed to address a question, make a prediction, communicate to others, or make a decision of personal importance.

Child Development Tracker

Physical Health

Sponsored by LeapFrog

Four-year-olds can engage in long periods of active play and exercise. They are skillful at walking, climbing, jumping, hopping, skipping, marching and galloping. They also are better able to throw, catch, kick and bounce balls. Improved finger dexterity allows them to hold writing tools with a more mature, tripod grip. Advances in hand-eye coordination help four-year-olds do puzzles, play with toys that have small parts and dress and undress without assistance.

Supporting Activities

Mister Rogers

Take turns as you practice throwing with your child. Bottletop Toss

Help your child develop balance and coordination Walking the Line

Books for Your Child

Reading to children every day is a great way for them to learn new skills. Try these great read-aloud books for preschoolers.

Motor Skill Development

- Achieves skillful levels of proficiency, control, and balance in walking, climbing, jumping, hopping, skipping, marching and galloping. Walks heel-to-toe, skips unevenly, and runs well. Walks down steps by alternating feet. Judges well in placing feet on climbing structures. May be able to hop three or four times without touching both feet to the floor.
- Begins to understand the use of movement concepts while traveling throughout a space (e.g., walks in a curved pathway, gallops in a straight line). Understands the need to travel through space without bumping into others.
- Stands on one foot for five seconds or more. Masters the low balance beam (4-inch-width), but has difficulty on a narrower beam without watching feet.
- May still lose balance when jumping.
- Begins to coordinate movements to climb on a jungle gym or jump on a trampoline.
- Is able to balance while doing a forward roll and not fall over.
- Supports weight on combinations of body parts (e.g., head, hands). Momentarily supports weight on hands alone (e.g., donkey kick).
- Demonstrates increasing abilities to coordinate movements in throwing, catching, kicking, bouncing balls. Doesn't yet expect successful results when playing with balls, and more often appears surprised when he or she performs ball-related skills (e.g., throwing, kicking) correctly. May seem to be controlled by the ball, rather than the other way around.
- Bounces a large ball and catches it. Can throw a ball underhand to a target 10 feet away.
- Is able to kick a ball along the ground while moving behind it.
- Strikes a balloon in the air with different body parts. Is starting to be able to strike a balloon with a lightweight paddle or hit a suspended ball. Can strike a large ball off a batting tee with a plastic bat. Has difficulty striking with long-handled implements (e.g., bats, hockey sticks).
- Can engage in long periods of active play and exercise.
- Lacks wrist strength to propel self effectively on monkey bars.
- Should not be limited to sitting in a classroom for periods of more than 60 minutes. Should accumulate at least 30 to 60 minutes of age- and developmentally-appropriate physical activity on all, or most, days of the week.
- Improves hand-eye coordination in building complex block structures, doing puzzles, reproducing shapes and patterns, stringing small beads, putting small pegs in small holes, using tools (e.g., hammer, screwdriver) and pouring sand or liquid into small containers.
- Becomes more proficient at handling a computer keyboard and mouse, but fine-motor skills are still developing so some children may have difficulty controlling these tools.
- Manipulates play objects that have fine parts.

- Can cut on a line continuously with scissors, if sufficient practice has been provided.
- Progresses in abilities to use writing, drawing and art tools like pencils, markers, chalk, paint brushes, etc. Draws combinations of simple shapes, people with at least four parts, and objects that are recognizable to grown-ups.
- Dresses and undresses without assistance. Laces shoes or clothing but cannot yet tie.
- Brushes teeth and combs hair.
- Rarely spills with cup or spoon.
- Shows a preference for being right-handed or left-handed.

Health Status and Practices

- Dresses and undresses without help, brushes teeth and combs hair, and completes other personal care activities independently.
- Cleans up without constant supervision.
- Tries new food on own. Prepares simple, healthy snacks.
- Improves ability to calm oneself.
- Can participate actively in games, outdoor play, and other forms of physical activity.
- Washes and dries hands before eating and after toileting.
- Continues to build awareness and ability to follow basic health and safety rules, such as fire safety, traffic and pedestrian safety, as well as respond appropriately to potentially harmful objects, substances and activities.
- Shows greater judgment and awareness of own limitations; still requires supervision from grown-ups to ensure safety.
- Knows how to follow routines in emergency situations and/or seek help.
- Begins to demonstrate safe practices and appropriate use of materials

Child Development Tracker

Science

Sponsored by LeapFrog

The overall goals of children's development in science are to deepen their conceptual understandings of the world around them, to increase their comprehension of how science is practiced and to develop their abilities to conduct scientific investigations. Adults can help children achieve these goals with a supportive environment.

Four-year-olds approach the world with great curiosity and use their imaginations to help understand it. Hands-on explorations help them to separate reality from fantasy. They can participate in the planning and implementation of simple scientific investigations, and over the course of the year, will increase their abilities to make observations, gather information, compare data, identify patterns, describe and discuss observations, and form explanations and generalizations.

Supporting Activities

Boohbah
Experiment with water and bathe at the same time! Bathtub Science

Mister Rogers
Build a simple "hourglass" to help explain time. Sand Clock

Books for Your Child
Reading to children every day is a great way for them to learn new skills. Try these read-aloud books for preschoolers.

Inquiry Skills

- Continues to use exploration as an important means of learning. Is able to help plan and implement simple investigations to answer questions about how, why, and what if...?
- Increases ability to observe and discuss common properties, differences, and comparisons among objects and materials. Can identify and sort by multiple properties (e.g., size, color, shape, function). Continues to use simple tools, gathering increasingly detailed information. May begin to use ruler or yard stick to measure length.
- Improves ability to record information through representational drawings by adding more details (e.g., long and short antennae on the snail). Can also contribute to adult-made charts and graphs (e.g., pointing out or drawing pictures of items that sink or float).
- Readily draws from past experiences to describe and discuss observations, and then form explanations and generalizations. Begins to compare data from multiple sources to see patterns (e.g., child may say, "Worms live in dirt. I have seen them in the ground at home and at school.") Notices form and function relationships (e.g., the columns on a building help to support the roof).
- Shares observations and ideas easily in conversation. May need some adult prompting to provide essential details, or may include a lot of unnecessary details.
- Engages cooperatively in planned investigations. Can contribute ideas to the planning of an investigation and work with others to carry out the plans (e.g., figuring out how to move water from a bucket on the floor up into the water table using a plastic hose).

Knowledge of Physical Sciences

- Can explain certain properties (e.g., hardness, color, shape, texture) of materials he or she has observed, as well as how these properties influence behaviors (e.g., a round ball rolls). Continues to learn when and how properties can be changed (e.g. mixing red and yellow paints makes orange).
- Experiments with changing the characteristics of sound and light (e.g., plays with making a drum louder, a shadow longer). Begins to understand that the characteristics of sound (e.g., pitch, volume) depends on the source of the sound (e.g., the different sounds made by airplanes, animals, instruments). Forms some ideas about how to change the size and shape of shadows.
- Can share observations of water (e.g., how it flows or drops, temperature variations). Notices that some objects sink in water and others float, but may believe that only light objects float and heavy ones sink.
- Experiments with how movements can be changed (e.g., modifies a ramp to get a ball to roll farther). Can form reasonable ideas about how to cause particular variations in movement.

Knowledge of Life Sciences

- Identifies detailed characteristics (beyond color, size, and shape) and behaviors of animals (e.g., how an animal moves or eats).
- Begins to understand that all animals need food, water and a place to live. Also, that plants need water, light and soil.
- With opportunities to observe growth and change, begins to understand that plants are living things and some things that move are not living things.

- Begins to think about the relationship among living things, their needs and their surroundings.

- Compares observable similarities and differences in living things. Can make generalizations across and within species (e.g., most plants have green leaves; robins, gulls, and ducks are birds).

- Can describe parts of the life cycle based on observations. Understands that a seed grows into a plant, but may not be sure that a tadpole and frog are the same species. May recognize that he or she was a baby once and will grow bigger.

Knowledge of Earth and Space

- Notices variations in the properties of materials in his or her environment (e.g., rocks are different colors, shapes and sizes; water can fall from the sky as rain or snow). Also, sees that water can influence the properties of other materials (e.g., makes a towel heavier).

- Can describe observable effects of wind, rain, and snow. Is learning about the seasons of the year and how the environment in his or her surrounding community changes with each season. Has a growing understanding of time, and can discuss and chart the daily routine, weather or other events from day to day.

- Can help chart the movement of the sun or the moon, and/or the phases of the moon

Child Development Tracker

Social and Emotional Growth

Sponsored by LeapFrog

The significance of social and emotional development is seen in every area of a child's life. A child will have a strong foundation for later development if he or she can manage personal feelings, understand others' feelings and needs, and interact positively with others. Differences in social and emotional development result from a child's inborn temperament, cultural influences, disabilities, behaviors modeled by adults, the level of security felt in a child's relationships with adults, and the opportunities provided for social interaction.

Four-year-olds continue to learn what causes certain feelings, and realize that others may react to the same situation differently. They have learned to better manage intense emotions with coping strategies like talking it out or drawing a picture. Four-year-olds also show further progress in their social interactions with peers, such as by smoothly joining in a group play situation, being sympathetic to others, or suggesting ways to resolve conflicts.

Emotional Development

- Uses adults as trusted role models (e.g., imitates a teacher's way of reading a story to the class). Is better able to tolerate the absence of familiar adults; copes with distress through the use of language, drawing, etc. (e.g., says, "I'm going to draw a picture of Mama and Papa for when they get home.").
- Increasingly expresses a sense of self in terms of abilities, characteristics, preferences, and actions (e.g., says, "Look at me! I'm building a castle!"). Compares self to others (e.g., says, "Maria can ride a bike, but I'm still learning.").
- Continues to gain an understanding of the causes of feelings, and that others may feel differently about the same situation (e.g., says, "I want to play on the swings, but Theo doesn't.").
- Learns coping strategies (e.g., using words, pretend play, drawing) to establish greater control and competence in managing intense emotions (e.g., after going to the emergency room, he or she may repeatedly play out the experience with dolls and stuffed animals).

Social Development

- Successfully enters a group of children (e.g., says, "Hey! I can be the grandma who comes to visit!"). Begins and sustains pretend play in a cooperative group (says, "Let's play that we're going on a trip. I'll be the pilot and you guys be on the plane.").
- Shows further progress in developing friendships with peers, even if a bond is formed with just one other child. Begins to try to please other children (e.g., says, "You can come to my birthday, OK?").
- Responds more appropriately and sympathetically to peers who are in need, upset, hurt, or angry (e.g., says, "Don't cry, Willy. My daddy can fix that bike. He knows how.").
- Suggests solutions to problems with other children, while continuing to seek adults' help (e.g., says, "Hey, Benjamin! We can BOTH be the daddies!").

Supporting Activities

Mister Rogers
This classic game helps kids develop self-control while learning to follow the rules. Simon Says

Use this chart to give your child a sense of pride in his or her inner growth. Kids Grow Inside, Too!

Jay Jay
Encourage kids to be kind to friends and to empathize with others Caring and Sharing

Clifford
Share personal feelings using shapes and language. Talk about Feelings

Books for Your Child
Reading to children every day is a great way for them to learn new skills. Try these great read aloud books for preschoolers.