

**Reach  
Out  
& Read<sup>®</sup>**



**COLORADO**

**Developmental Milestones and the  
Importance of Books**

# Objectives:

1. Introduction to Reach Out and Read Colorado
2. Introduction to Early Relational Health
3. Books for developmental surveillance and promotion
4. Better together!





# What is Reach Out and Read?

- Evidence-based, early literacy and early relational health program
- Model: Introduces a book into the routine pediatric visit from Birth through Age 5
- A national program delivering:

**6 MILLION**  
new books

**4.2 MILLION**  
children

**ALL 50**  
states

- Endorsed by the AAP

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



Reach  
Out  
& Read®



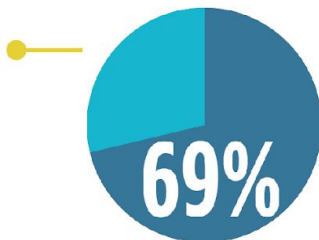
**COLORADO**

# Reach Out and Read Colorado

**1,930**  
**MEDICAL PROVIDERS**  
TRAINED IN THE REACH  
OUT AND READ MODEL

**327,388**  
**WELL-CHILD VISITS**  
DISCUSSING THE IMPORTANCE OF  
READING ALOUD FROM A YOUNG AGE

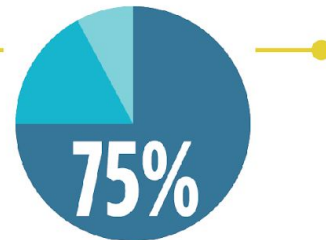
**327**  
**MEDICAL OFFICES**  
SERVING CHILDREN FROM  
ALL 64 COLORADO COUNTIES



OF CHILDREN  
ARE FROM  
LOW-INCOME  
FAMILIES

**338,101**

**NEW & GENTLY-USED BOOKS**  
PRESCRIBED TO FAMILIES ENABLING  
THEM TO BUILD HOME LIBRARIES



OF FAMILIES SPEAK  
ENGLISH AS A FIRST  
LANGUAGE,  
17% SPANISH,  
AND 8% OTHER  
[OTHER = AMHARIC, ARABIC,  
SOMALI, VIETNAMESE, FRENCH,  
CHINESE, SWAHILI & MORE]



**BOOKS PRESCRIBED  
IN 30+ LANGUAGES**





Written by Claire Everell. Book design by Meehyun Kim-Thompson  
 Photos ©: cover: shwepsa/Stockphoto, back cover: monkeybusiness/Thinkstock, 2: main: psah/istockphoto, digitalaklel/istockphoto, 3: Tassil/istockphoto, 4: Bk webstaxstudio/Shutterstock, 5: apholova/Shutterstock, 6: krasakom/Shutterstock, 7: Sarah Noyes/Shutterstock, 8: Monkey Business Images/Shutterstock, 9: top left: Tatiana Cherkizova/Shutterstock, 14 bottom left: iStock, 15 top right: Tamek/W/Shutterstock, 16 bottom left: iStock, 17: Tom Altorf/Getty Images, Icons by Wloak in Jooip

Babies will put board books into their mouth to explore them. Babies enjoy songs and rhymes and looking at pictures of other babies. Point at pictures and talk to your baby – this is how babies learn.



For more information on reading aloud with your children, visit [www.reachoutandread.co.org](http://www.reachoutandread.co.org).  
 twitter.com/reachoutreadco - facebook.com/reachoutandreadcolorado

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# 96%

OF CHILDREN UNDER FIVE  
SEE THEIR DOCTOR AT LEAST  
**ONCE A YEAR**



## WHY BOOKS?

The most important activity for building knowledge for eventual success in reading is reading aloud to children.



## WHY BIRTH TO FIVE?

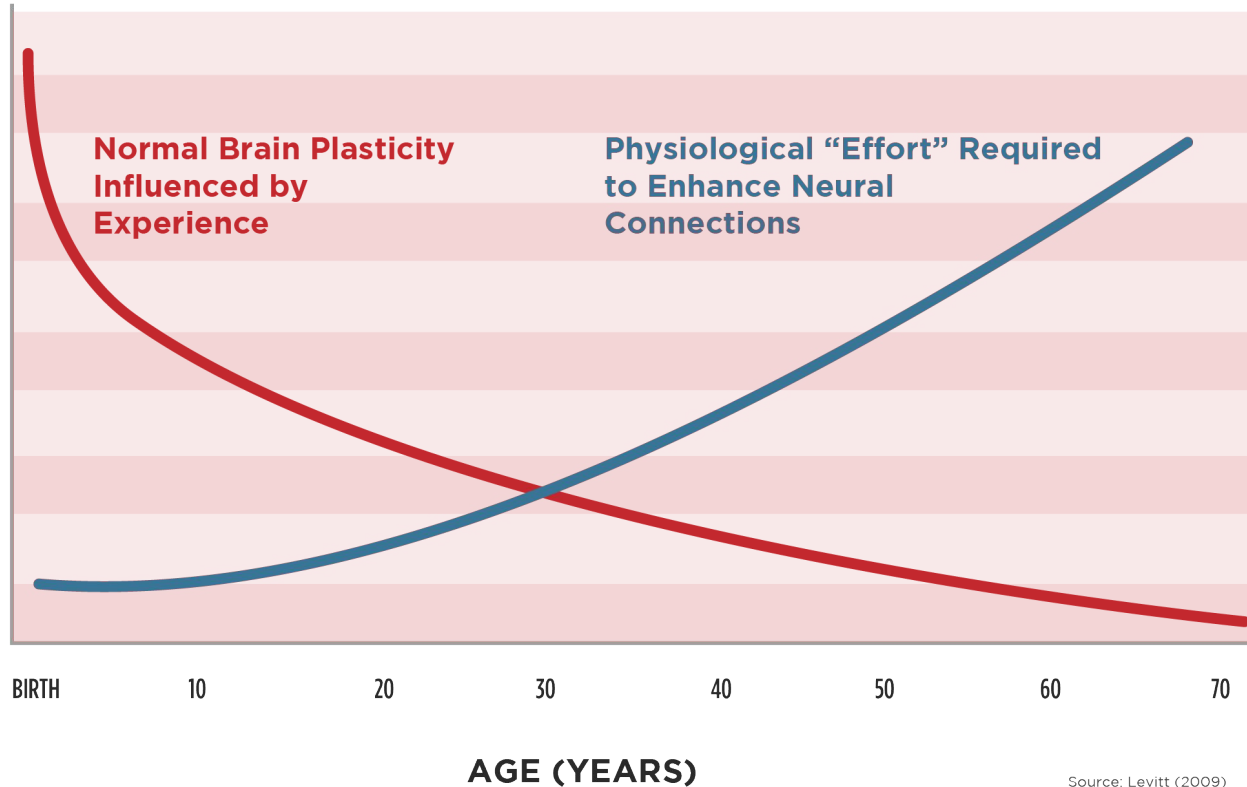
A child's brain undergoes an amazing period of development from birth to three—producing 700 new neural connections every second. And, 90% of a child's brain develops before age five.



## WHY PROVIDERS?

Health care providers have early access to families & are a trusted source of health information. Making books a part of preventative visits allows health care providers to observe fine motor skills, language, literacy & parent-child interaction.

# The Ability to Change Brains Decreased Over Time



Source: Levitt (2009)



# Evidence Base

- 2.5X more likely to read together
- Accelerated language development by 3-6 months, increased receptive language
- Fosters resilience and reduces toxic stress
- Creates space for healthy, strong bonds from infancy
- Contributes to academic success, specifically kindergarten readiness
- Greater retention of providers due to increased provider satisfaction
- Participating families demonstrated higher attendance rates for well visits
- Lower rates of maternal depression

## Reach Out and Read is Feasible and Effective for Adolescent Mothers: A Pilot Study

Maya M. Kumar<sup>1,4</sup> · Henry R. Cowan<sup>1,4</sup> · Lauren Erdman<sup>3</sup> · Miriam Kaufman<sup>1</sup> · Katherine M. Hick<sup>1</sup>

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## The Role of Clinic Culture in Implementation of Primary Care Interventions: The Case of Reach Out and Read

Tracy M. King, MD, MPH; Samar Muzaffar, MD, MPH; Maureen George, PhD, RN, AE-C

**Objective**—Reach Out and Read (ROR) is a primary care-based intervention supported by considerable evidence regarding its efficacy. Implementation of ROR, however, varies across participating sites. The objective of this study was to identify practice attributes associated with variability in ROR implementation. **Staff** found their jobs burdensome and communication lacking. They demonstrated disrespect for patients and families. In this context, they experienced difficulty integrating ROR into their daily routines. Staff at successful sites worked as a team and expressed strong commitments to their communities. Integration of

## Do Book Giveaway Programs Promote Home Literacy Environment and Child Literacy-Related Behavior and Skills

Merel de Bondt  
Vrije Universiteit Amsterdam

Ingrid A. Willenberg  
Australian Catholic University

Adriana G. Bus  
University of Stavanger

## Factors Associated With Increased Reading Frequency in Children Exposed to Reach Out and Read

Sharon Rikin, MD; Kevin Glatt, BA; Pippa Simpson, PhD; Yumei Cao, PhD; D; Earnestine Willis, MD, MPH

## Evaluating the Effect of Reach Out and Read on Clinic Values, Attitudes, and Knowledge

Heather Burton, MD; Dipesh Navsaria, MPH, MSLS, MD

### ABSTRACT

**Objective:** Reach Out and Read is a primary care clinic-based early childhood literacy promotion program that facilitates discussion around literacy and encourages shared reading at home. No prior studies have examined the effect of program implementation on clinic staff and clinic values, attitudes, and knowledge related to early literacy. The hypothesis of this study was that Reach Out and Read implementation not only improves early childhood literacy promotion, but also improves aspects of the clinician's work environment. Understanding the potential effects of this program on clinic staff is important, since many clinics will implement this program in the near future.

**Methods:** Semistructured key informant interviews were performed with 10 study clinics with Reach Out and Read and 7 control clinics. Interviews were transcribed, coded, and analyzed according to standard qualitative research protocol. Comparisons were made for differences in clinic morale and attitudes towards early childhood literacy. A secondary analysis examined practice and workplace changes in study clinics.

**Results:** The coded transcripts showed that clinicians at the majority of the study clinics believed that the program boosted clinic morale, increased provider satisfaction, improved patient-clinician relationships, and promoted a literacy-rich environment. Compared to clinicians in control clinics, clinicians in study clinics were more likely to report that they played a large role in promoting literacy and reported having more consistent literacy discussions in visits. Funding was the only concern mentioned consistently by clinics with Reach Out and Read.

**Conclusions:** Understanding potential changes that can occur in clinics because of the Reach Out and Read program is crucial to help clinics adequately prepare for the implementation process. Knowing that this program has many advantages and few disadvantages in clinics may encourage more participation. Further studies should compare clinics with Reach Out and Read to those with no interest in the program to determine if results from this study can be more broadly generalized.

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### INTRODUCTION

Reach Out and Read is a primary care clinic-based program that promotes early childhood literacy through providing books and advice within pediatric well-child visits. Prior studies show that parents who participate in the program read aloud to their children more often, own more children's books, and enjoy reading together as a family more than families who do not participate.<sup>1-3</sup> In addition, children participating in Reach Out and Read were found to have higher vocabulary scores and higher expressive and receptive language scores than their peers.<sup>4,5</sup> These skills are crucial for children's social, cognitive, and emotional development.<sup>6</sup> Despite evidence supporting Reach Out and Read, remarkably little research has been performed regarding the effect of the program on the clinic itself and staff. In 2009, King et al examined how clinic culture influenced successful program implementation, but no published research has examined the opposite: how Reach Out and Read affects clinic environment and employees.<sup>7</sup>

In August 2014, the American Academy of Pediatrics (AAP) released a policy statement recommending that early childhood literacy promotion be incorporated into pediatric practices and referenced Reach Out and Read as a successful evidence-based model.<sup>8</sup> UW Health has funded Reach Out and Read in all of its primary care clinics that see children, although at the time of this study, not all UW Health clinics had yet implemented the program. With the

Pediatrics Policy means providers health supervision by used model of hypothesized that as reading as part in caregiver-child based on a convenience sites, which is in Milwaukee, 14 questionnaires, reading to children ) days per week. (examine relative vers' reading fre-

**RESULTS:** A total of 256 caregivers were eligible for analysis; those who reported receiving  $\geq 4$  books from pediatricians read to children more days per week compared to those receiving fewer books (5.07 vs 3.61,  $P < .001$ ) and were more likely to read daily (odds ratio 3.07, 95% confidence interval 1.80–5.23). Caregivers' interest in reading, number of children's books in the home, reading as part of a bedtime routine, and number of books received from pediatricians were among the most important variables in distinguishing rarely, often, and daily reading caregivers.

**CONCLUSIONS:** Exposure to ROR-Milwaukee's intervention is associated with increased reading frequency. Identified variables such as reading as a bedtime routine and number of children's books in the home should be targets for future literacy-promoting interventions.

**KEYWORDS:** literacy; pediatricians; primary care

**ACADEMIC PEDIATRICS** 2015;15:651–657

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Out and Read.  
Multiple vari-  
which may be  
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al development frequency with in early life.<sup>1-5</sup> Latino families

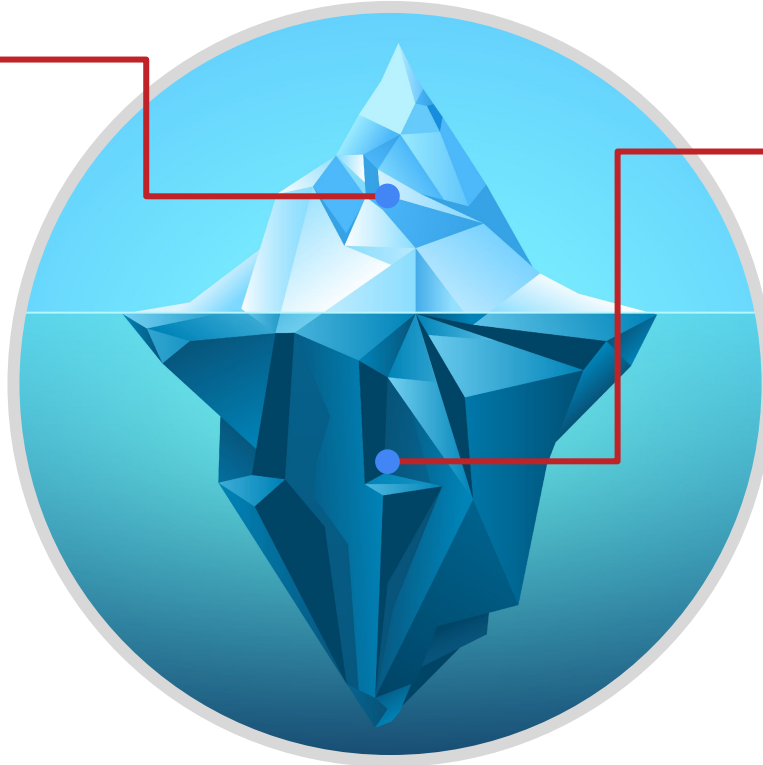
in child development by increasing both reading frequency and child language development in disadvantaged groups.<sup>9-12</sup> This study seeks to examine the relative importance of ROR and other factors which may influence caregivers' reading frequencies and thus the development of early childhood literacy.

Reading may stimulate cognitive development more than other forms of caregiver-child interaction as reading contains a higher frequency of characteristics that are positive predictors of language development than toy play, mealtime, or dressing.<sup>13</sup> Caregivers' reading aloud to children from an early age has also been associated with improved development of preschool language skills and interest in reading.<sup>14</sup> Studies have demonstrated that shared reading as early as 6 months is associated with improved language development at 2 years and subsequent reading activities.<sup>15</sup> Additionally,

# Our Impact is Life-Changing – above and below the waterline

## EARLY LITERACY BENEFITS

- 2.5X more likely to read together
- Accelerates language development
- Increases language ability
- Kids start school ready to learn
- Breaks the cycle of poverty



## EARLY RELATIONAL HEALTH IMPACTS

- Healthy relationships from birth
- Positive interaction and attention from caring adults
- Stimulation from people and environment
- Social and emotional development
- Mitigates toxic stress



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# One Word or Phrase

- Think about a time when you were read to as a child. What is one word or phrase that comes to mind?

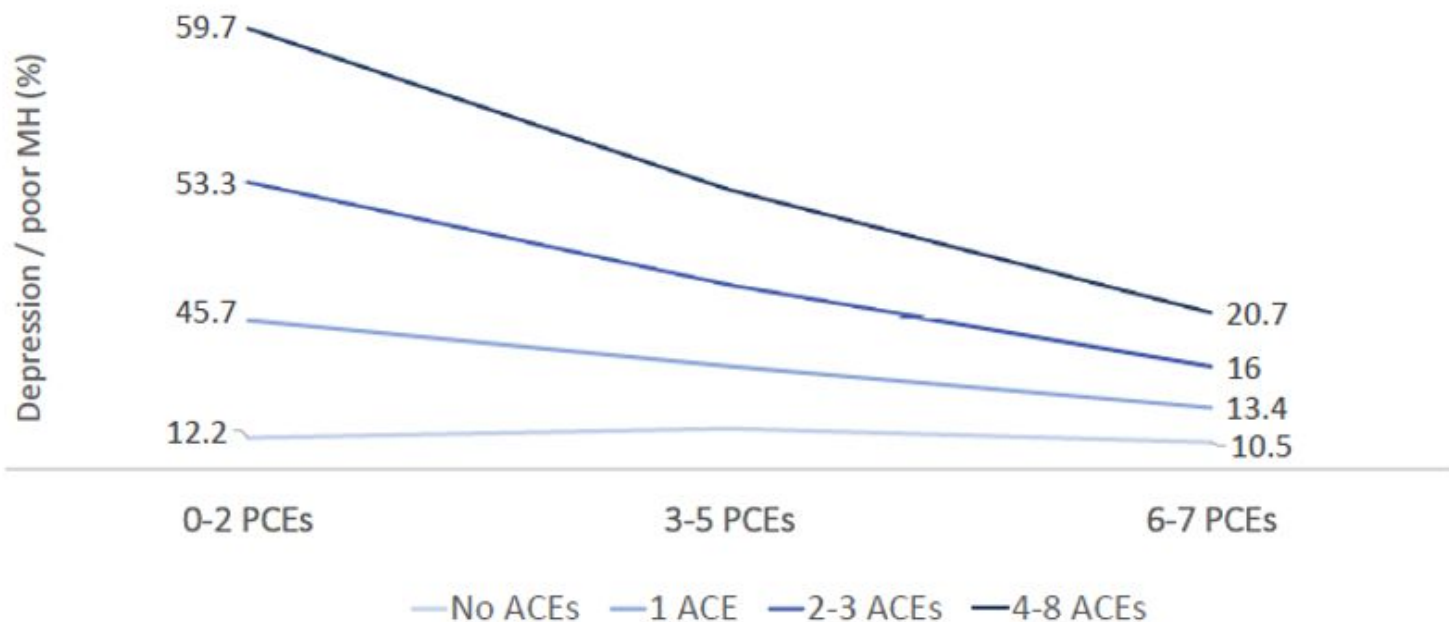
*(If you can't think of a time as a child, think about a time as an adult.)*







## Positive Childhood Experiences Mitigate ACEs Effects



Bethell , Jones, Gombojav Linkenbach and Sege. *Positive Childhood Experiences . . . JAMA Pediatrics* 2019



# The How

## SAFER:

Show the book early, share it for developmental surveillance

Ask the caregiver about reading activities at home

Feedback: observations about book interaction

Encourage- daily reading, routine and engaging

Refers the family if needed

**Efficiency!** Clinics only have 20 minute visits. Use the book to your advantage to help examine the child.



## 2-Week Visit

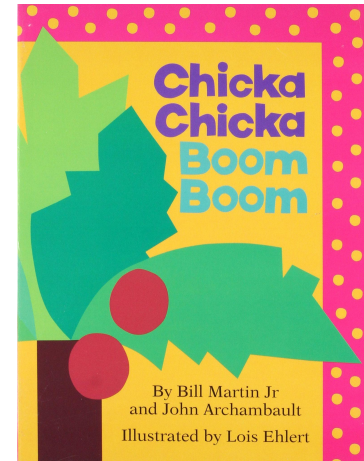
- Baby can tell the difference between parent voices
- Crucial bonds are made
- *I Love You Like Sunshine:*  
Black and white vision/ high contrast
- Acknowledge the discomfort with reading to a baby





## 6-Month Visit

- Social language and self help: smiles at reflection, looks when name is called
- Verbal language: babbles
- Gross motor: starts to sit unsupported
- Books: small board books, with pictures and bright colors

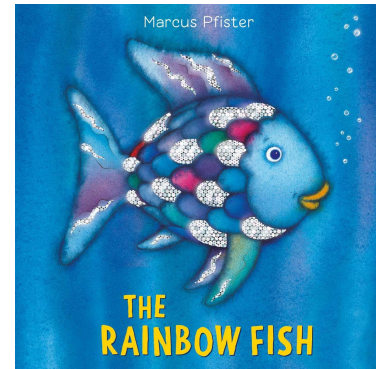


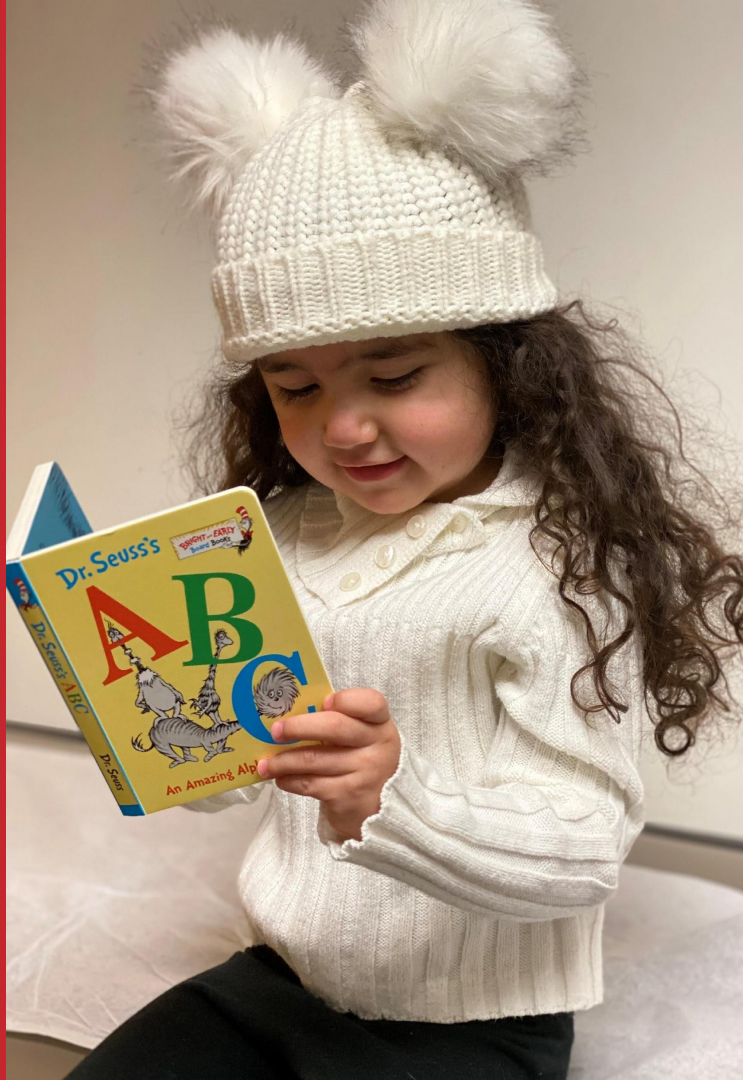




## 12-Month Visit

- Social language and self help: looks for hidden objects, imitates new gestures
- Language: mama, dada specifically and 1 or 2 other words, follows directions (give me)
- Gross motor: Pulling to stand, walking
- Books: Board books that can have busier scenes

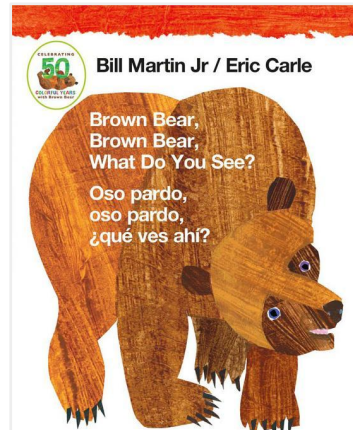




## 2-Year Visit

### Language is exploding!

- Social language: Parallel play
- Verbal language: 50 words and 2 word phrases, 2 step command, 5 body parts. 50% understandable
- Books: Board or paperback, storyline with simple plot, dialogic reading opportunities, counting or alphabet





## 2 year milestones

Courtesy of Asher Shiffman

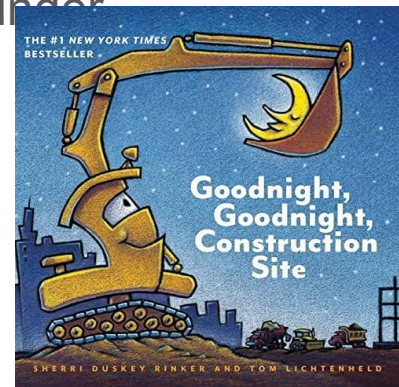




## 3-Year Visit: Preschool

Conversation while you read together.

- Social language: imaginative play, plays cooperatively
- Verbal language: 3-word sentence, 75% understandable, tells a story from a book, compares such as bigger or smaller can use on or under
- Books: paperback, simple story with beginning, middle and end, books about school or daycare

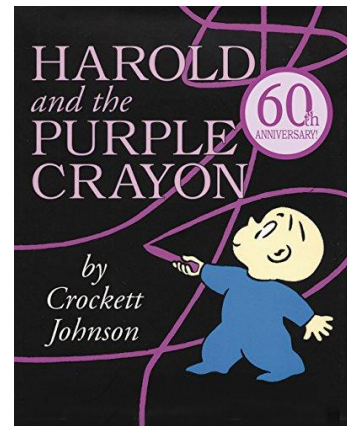




## 4-Year Visit: Preschool

Understands stories to understand the world.

- Verbal language: what do you do when cold, 4 word sentences = 100% understandable, tells a story from the book
- Books: storyline with identifiable characters, vocab can be more challenging, content more abstract or introduce new concepts



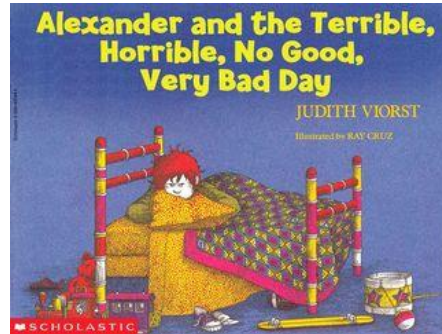




# 5-Year Visit

Ready to start learning how to read.

- Good articulation and language skills, recognize and read up to 10, 4 or more directions, proper grammar and complex language
- Books: Story has a problem with a solution, more words on the page and more challenging vocabulary



# Supporting Neurodiversity & Developmental Delays

## Reading Aloud with Children who have Autism Spectrum Disorder (ASD)



## Reading Aloud with Children who have Short Attention, High Activity Level, or ADHD



## Reading Aloud with Children who have Developmental Delay



## Reading Aloud with Children who have Speech and Language Delay



### READING TIPS FOR YOUR Infant or Toddler

- **Read together when it's fun and relaxing.** Younger children may be easily distracted, so start by reading for just a few minutes at a time.
- **Read the same story many times.** Children enjoy the repetition and it helps them learn language.

### INFANT OR TODDLER SUGGESTED BOOKS

Mother Goose Rhymes or Dr. Seuss books with rhyming stories

*Brown Bear, Brown Bear, What Do You See?*  
by Bill Martin, Jr.

Each Reach Pear Plum



where great stories begin™

## REACH OUT AND READ TRAINING VIDEO

### Promoting Literacy for Children with Developmental Disabilities: SHORT ATTENTION SPAN, HIGH ACTIVITY LEVEL OR ADHD

Special thanks to NCR FOUNDATION for its support of this project  
And to the children and families of the Center for Children with Special Needs, Floating Hospital for Children  
Perkins School for the Blind



where great stories begin™

## REACH OUT AND READ TRAINING VIDEO

### Promoting Literacy for Children with Developmental Disabilities: DEVELOPMENTAL DELAY

Special thanks to NCR FOUNDATION for its support of this project  
And to the children and families of the Center for Children with Special Needs, Floating Hospital for Children  
Perkins School for the Blind



# ILCO and RORCO Better Together

DOLLY PARTON'S IMAGINATION LIBRARY OFFICIAL REGISTRATION FORM

Child's Name: First Name \_\_\_\_\_ Last Name \_\_\_\_\_  
Child's Date of Birth: MONTH / DAY / YEAR Sex: M F Phone: \_\_\_\_\_

Authorized Adult's Name: First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Authorized Adult's Address: ADDRESS \_\_\_\_\_  
CITY STATE ZIP \_\_\_\_\_

Authorized Adult's Email Address: \_\_\_\_\_

Child's Home Address: ADDRESS \_\_\_\_\_  
CITY STATE ZIP \_\_\_\_\_


Mailing Address: (If Different) ADDRESS \_\_\_\_\_  
CITY STATE ZIP \_\_\_\_\_

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# Questions?

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