



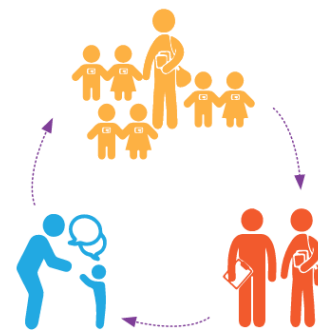
Crosswalk with The Early Learning Guidelines: Nebraska's Birth to Five Learning and Development Standards

About LENA

LENA is a national nonprofit on a mission to transform children's futures through early talk technology and data-driven programs. LENA's technology is the global standard for measuring early language environments. Visit www.LENA.org or email info@LENA.org to learn more about how LENA Grow supports early childhood teachers' professional development.

How LENA Grow Supports The Early Learning Guidelines: Nebraska's Birth to Five Learning and Development Standards

[LENA Grow](http://www.LENA.org) is an evidence-based professional development program that helps teachers improve classroom language environments in early learning settings, complementing the Early Learning Guidelines: Nebraska's Birth to Five Learning and Development Standards (Nebraska Department of Education, 2018). Teachers participate in LENA Grow's five-week reflective feedback cycle. The cycle employs LENA's wearable device, data-rich feedback reports, and strengths-based coaching to measurably increase conversational turns, one of the most predictive metrics of child outcomes. Extensive peer-reviewed research has linked increased conversational turns to improvements in brain function (Romeo et al., 2018a), brain structure (Romeo et al., 2018b; Huber et al., 2023), executive functioning (Romeo et al., 2021), reading skills (Merz, 2018; Weiss et al., 2022), vocabulary acquisition (Duncan et al., 2022), emotional development (Gómez & Strasser, 2021), and even long-term cognitive outcomes such as IQ score (Gilkerson et al., 2018).



1. A LENA Day. One day per week for five weeks, children wear the LENA device to measure their teachers' interactive talk.

2. Coaching and feedback. Teachers reflect on their talk data with strengths-based guidance from an instructional coach.

3. Practice days. Teachers work towards measurable improvement on their next LENA Day.

LENA Grow builds a reflective teaching practice that strengthens language development and fosters responsive relationships. Utilizing classroom and child-level data, teachers set intentional, measurable goals to increase interactive talk and support each child's developmental progress. These goals are aligned with Nebraska's Birth to Five Learning and Development Standards domains and tailored to each child's needs, supporting differentiated instruction and developmental progress. Classrooms implementing LENA Grow have shown accelerated gains in TS GOLD® (Russo, 2025; Govoni, 2025a), DECA (LENA Foundation, 2022b), and kindergarten readiness assessments (Govoni, 2025b), reinforcing the program's impact on both academic and behavioral readiness for school. Classrooms implementing LENA Grow demonstrate measurable improvements in instructional quality, as reflected in higher CLASS® scores (LENA Foundation, 2023a; 2023b). Educators also report increased job satisfaction and self-efficacy (LENA Foundation, 2023c), reinforcing the program's dual impact on both child development and teacher effectiveness. Just as Nebraska's Birth to Five Learning and Development Standards serve teachers across a wide variety of settings, LENA Grow is implemented in a variety of early learning settings throughout the U.S., including child care centers, school districts, family child care homes, and Head Start programs.

Core Elements of LENA Grow

These elements work together to provide a cohesive, empowering professional development experience for teachers that drives meaningful and lasting increases in interaction. This change leads to improved language environments, higher TS GOLD® and CLASS® scores, accelerated language development, and increased teacher job satisfaction and self-efficacy.

1. **Research base:** LENA Grow is rooted in over a decade of peer-reviewed research linking conversational turns to improved language, brain, and social-emotional development. More than 400 researchers and clinicians in over 40 countries have used LENA technology to study early language development (LENA Foundation, 2025).
2. **Early talk strategies:** LENA's early talk strategies, the 14 Talking Tips, are research-based techniques for increasing early talk and supporting healthy language development. Three research-based "active ingredients" power the 14 Talking Tips: creating joint attention, increasing conversational turn-taking, and then recasting (Warren, 2015). During each coaching session, teachers receive research-based materials that utilize these tips to increase interactive talk. Areas of focus include personal care, transitions, indoor play, outdoor play, mealtimes, shared reading, early math, early literacy, and songs & rhymes.
3. **LENA Room Report:** At each coaching session, teachers review the Room Report, which provides objective interaction data on overall room averages and child-specific averages. It reports the number of conversational turns in the classroom across the day. (See attachment A)
4. **LENA Child Report:** The Child Report provides a detailed view of each individual child's experience across the day, including hourly counts of interactions and child vocalizations that highlight further engagement opportunities for teachers. This report is also used to engage families in a conversation about their child's early talk experiences and language development.
5. **Impact Report:** The LENA Grow Impact Report describes LENA Grow, defines turns, explains the importance of interactive talk, and displays the program's outcome data. Outcomes reported include the total number of children, teachers, and classrooms served, teacher sentiments about the program and its impact, and the numerical change in Conversational Turns from beginning to end of the sequence, including its statistical significance.
6. **Weekly strengths-based coaching:** LENA Grow coaches provide 30-60 minutes of coaching each week. The Coach Guide supports them in bringing a strengths-based lens to the data analysis and goal setting conversation with teachers.
7. **Weekly goal setting, documentation, and practice:** At each coaching session, the teacher sets a specific and measurable goal for the coming week. The teacher then documents progress toward that goal as they practice integrating early talk strategies throughout the week, including the next LENA Day.
8. **Family Engagement:** A Family Talk handout is provided each week for teachers to send home. Teachers also spend one coaching session developing a family engagement strategy and making plans for how they will engage families in extending quality interactions into the home setting.

How LENA Grow Supports

LENA Grow supports Nebraska's Birth to Five Learning and Development Standards by improving the early talk environment for children, focusing specifically on the quantity and quality of adult-child interaction. LENA Grow's detailed child-level data helps teachers individualize instruction.

Nebraska's Birth to Five Learning and Development Standards		How LENA Grow Supports
Domain	Sub-domains	
Social and Emotional Development	Self Concept SE.01	<p>LENA Grow supports social and emotional development by strengthening responsive teacher-child interactions that build trust, emotional security, and relationships. Child- and classroom-level data help teachers foster each child's confidence and sense of self through consistent, individualized interactions. Teachers receive research-based resources that support recognizing and responding to children's emotional cues, with practical strategies for engaging young children during potentially stressful moments such as personal care routines and transitions. As children experience more responsive interactions, they gain confidence in expressing their thoughts and emotions, which strengthens their self-concept, enhances self-regulation, and fosters prosocial behaviors like empathy and cooperation.</p> <p>Peer-reviewed research has established a causal link between increased conversational turns and improved emotional development in the first three years of life (Gómez & Strasser, 2021). Additionally, participation in LENA Grow has been associated with improved DECA (LENA Foundation, 2022b) and TS GOLD® (Russo, 2025) scores, indicating enhanced resilience and emotional development.</p>
	Self-Control SE.02	
	Cooperation and Prosocial Behavior SE.03	
	Social Relationships SE.04	
	Knowledge of Families and Communities SE.05	
Approaches to Learning	Initiative and Curiosity AL.01	<p>LENA Grow supports approaches to learning by equipping educators with strategies that nurture children's initiative, curiosity, and reasoning skills. Through LENA's 14 Talking Tips, grounded in joint attention, recasting, and responsive talk, teachers foster environments where children are encouraged to explore, ask questions, and engage meaningfully with their surroundings. During coaching sessions, educators analyze classroom- and child-level data, reflect on teaching practices, and set individualized goals that support children's cognitive engagement. Focus areas such as mealtimes, transitions, and indoor/outdoor play become rich opportunities for sensory exploration, reasoning, and problem-solving. As children experience more responsive interactions, they develop mental flexibility and problem-solving abilities, key components of early academic success.</p> <p>Peer-reviewed research has linked early conversational experiences to brain structure (Romeo et al., 2018a), brain function (Romeo et al., 2018b), and executive functioning (Romeo et al., 2021), as well as long-term outcomes such as IQ and language skills in adolescence (Gilkerson et al., 2018), underscoring the critical role of language-rich environments in cognitive development.</p>
	Sensory Exploration, Reasoning, and Problem-Solving AL.02	

Nebraska's Birth to Five Learning and Development Standards		How LENA Grow Supports
Domain	Sub-domains	
Health and Physical Development	Health and Safety Practices HP.03	<p>LENA Grow supports health, safety practices, and nutrition by helping teachers embed interactive talk into care routines, promoting children's independence and self-care skills. Teachers receive research-based strategies for engaging children during mealtimes, transitions, and personal care, turning routine moments into opportunities for connection and learning. Children who complete LENA Grow show significantly greater gains in self-help skills, as measured by LAP-BK outcomes (LENA Foundation, 2024).</p>
	Nutrition HP.04	
Language and Literacy Development	Listening and Understanding LL.01	<p>LENA Grow supports language development by equipping teachers with strategies that strengthen interactive talk with each child and build communication skills. Rooted in the active ingredients of joint attention, conversational turn-taking, and recasting (Warren, 2015), LENA's 14 Talking Tips provide teachers with practical, research-based strategies to foster rich language experiences. Children in LENA Grow classrooms have shown increases in TS GOLD® language scores (Dynia, 2022; Heilmann & Moyle, 2022; Govoni, 2025a; Russo, 2025) and LENA Developmental Snapshot scores (LENA Foundation, 2022a).</p> <p>LENA Grow supports early literacy by emphasizing oral language development, a foundational skill that underpins phonological awareness. Teachers receive research-based resources that provide strategies for increasing interactive talk, with a focus on shared reading, early literacy, and songs & rhymes. Supported by strength-based coaching, teachers review classroom and child-level data, set measurable goals, and practice new strategies, enhancing teachers' ability to scaffold children's literacy skills. Peer-reviewed research has linked increased conversational turns to stronger reading skills (Merz, 2018; Weiss et al., 2022) and higher vocabulary scores (Duncan et al., 2021; 2022). Children in LENA Grow classrooms have demonstrated accelerated growth in the TS GOLD® literacy area (Dynia, 2022; Heilmann & Moyle, 2022) and improved performance on kindergarten readiness assessments (Govoni, 2025b).</p>
	Speaking and Communicating LL.02	
	Phonological Awareness LL.03	
	Book Knowledge and Appreciation LL.04	
	Print Awareness and Early Writing LL.05	

Nebraska's Birth to Five Learning and Development Standards		How LENA Grow Supports
Domain	Sub-domains	
Mathematics	Number and Operations M.01	<p>LENA Grow supports mathematics by helping teachers embed math talk into everyday routines and interactions. Through strengths-based coaching and data-informed goal setting, educators practice strategies that promote early math concepts such as counting, patterns, and spatial awareness. Research-based resources guide teachers in increasing interactive talk during indoor and outdoor play, mealtimes, and transitions, creating meaningful opportunities to build children's mathematical understanding throughout the day.</p>
	Geometry and Spatial Sense M.02	
	Patterns and Measurements M.03	
	Data Analysis M.04	
Creative Arts	Music CA.01	<p>LENA Grow supports the creative arts by encouraging rich, interactive talk that nurtures children's imagination and self-expression in music, visual art, and dramatic play. Teachers receive practical strategies to spark creative thinking during songs and rhymes and indoor and outdoor play. These responsive interactions help children develop confidence in expressing ideas and engaging with the world in creative and meaningful ways.</p>
	Visual Art CA.02	
	Dramatic Play CA.04	

*The Domain of Science is not explicitly addressed in the LENA Grow program.

How LENA's 14 Talking Tips Supports Language Development

LENA's early talk strategies, the 14 Talking Tips, are research-based techniques for increasing early talk and supporting healthy language development. Three research-based "active ingredients" power the 14 Talking Tips: creating joint attention, increasing conversational turn-taking, and then recasting (Warren, 2015). This chart dives deeper into the Language Development and Communication domain to illustrate how LENA's 14 Talking Tips align with specific communication goals.

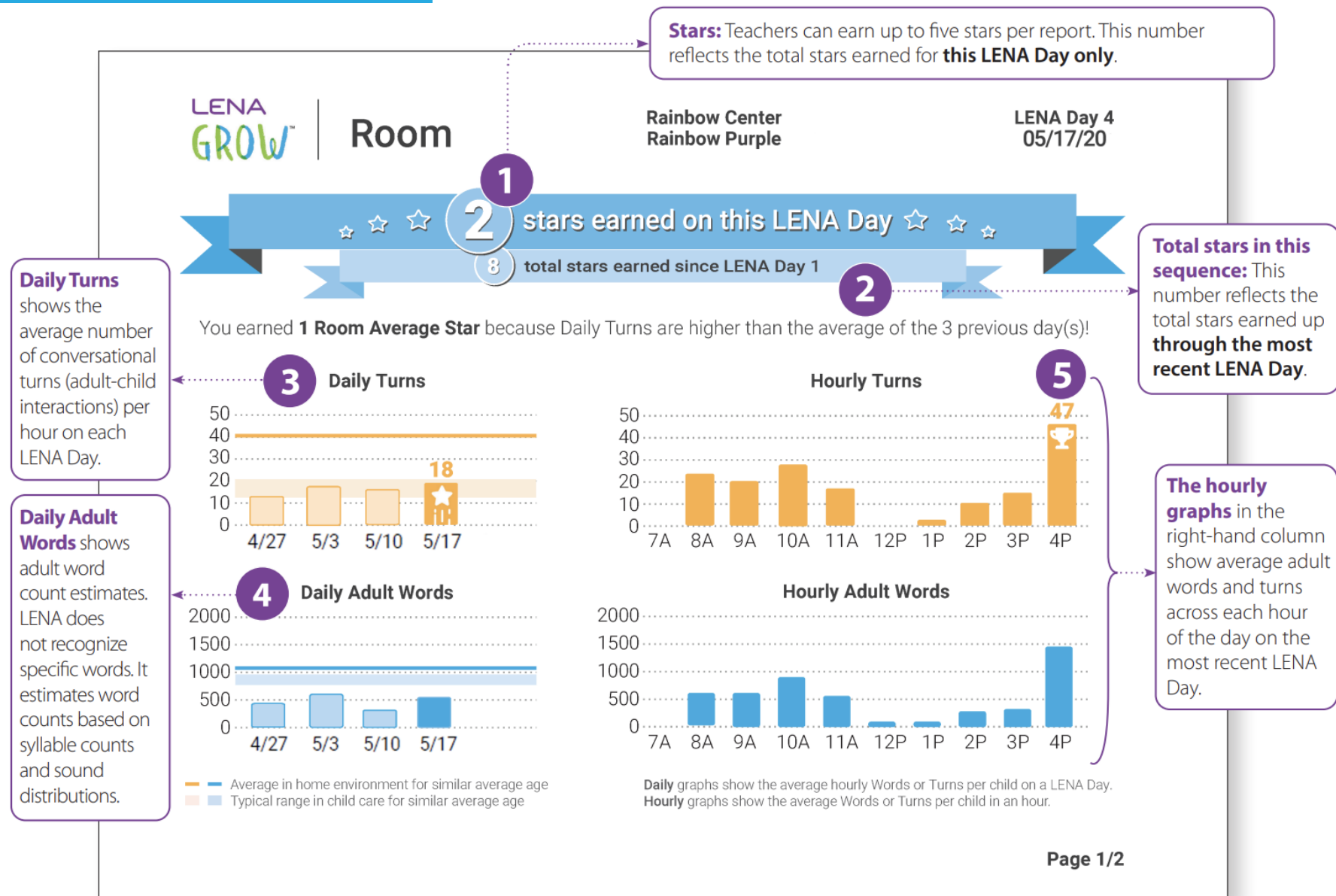
14 Talking Tips														
Language and Literacy	1: Talk about what you're doing and thinking.	2: Comment on what they're doing or looking at.	3: Name things that they're interested in.	4: Get down to their level: face to face.	5: Touch, hug, hold.	6: Tune in and respond to what they look at, do, and say.	7: Wait for their response.	8: Imitate them , and add words.	9: Make faces, use gestures.	10: Take turns — don't do all the talking.	11: Repeat and add to what they say and do.	12: Follow their lead , do what interests them.	13: Encourage them , be positive.	14: Be silly! Relax and have fun!
Listening and Understanding LL.01 Demonstrates continual growth in understanding increasingly complex and varied vocabulary	✓	✓	✓			✓	✓		✓		✓			
Speaking and Communicating LL.02: Develops foundational skills to communicate effectively for a variety of purposes				✓		✓	✓	✓		✓		✓	✓	

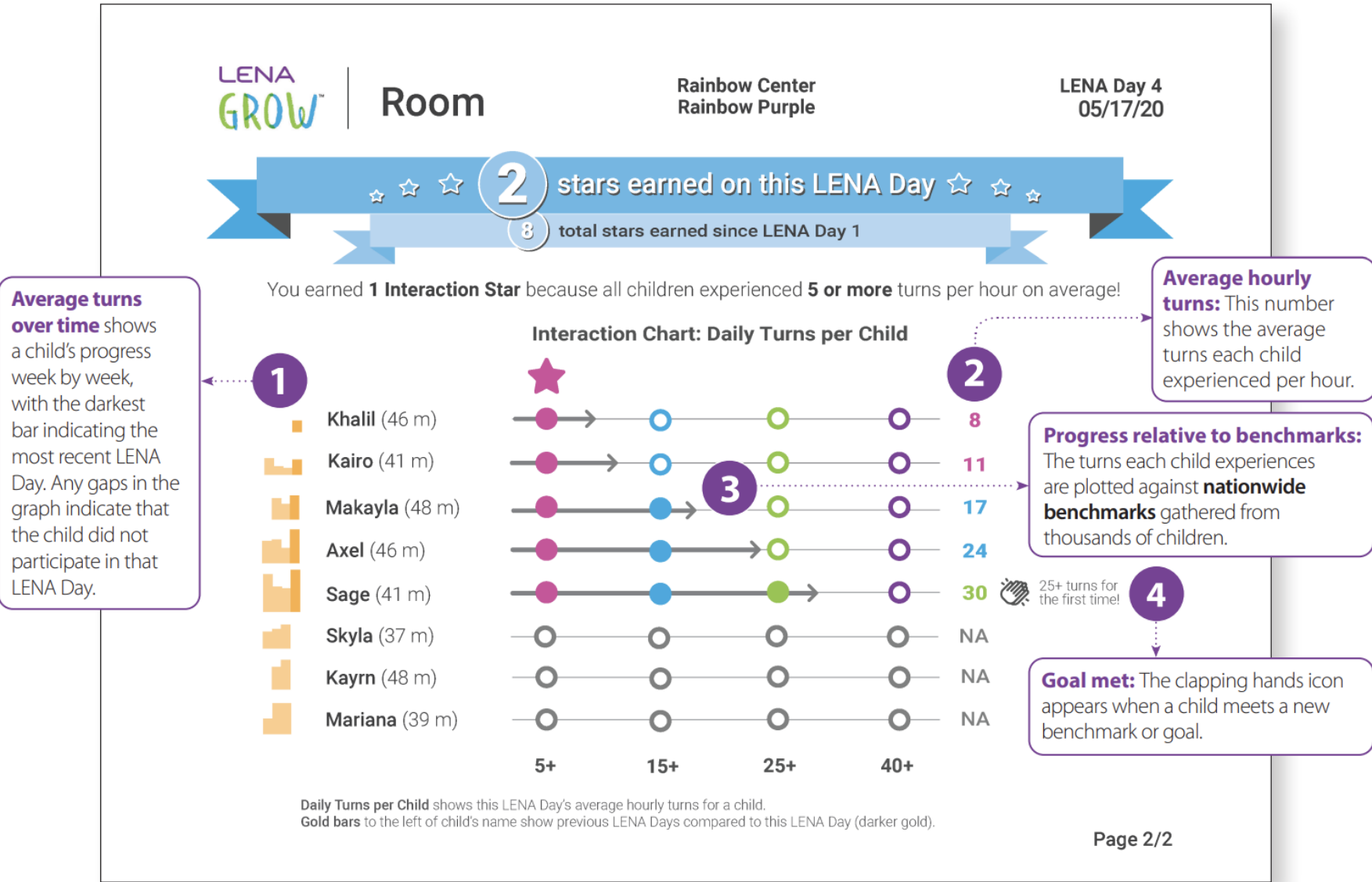
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Sample Room Report p1





Sample Child Report

Average Hourly Adult Words: The average adult words spoken near the child plotted against nationwide benchmarks gathered from thousands of children.

Average Hourly Turns: The average back-and-forth interactions between the child and adults week by week.

Average Hourly Child Vocalizations: The average number of vocalizations expressed by the child, indicating opportunities for adult engagement.

Hourly counts for adult words, conversational turns, and child vocalizations for the highlighted day.

