ROBOKIND®

Empowering Every Student:

RoboKind's CASE-Endorsed Approach to Foundational Skills

INTRODUCTION

At RoboKind, we believe all students deserve access to an education that is not only inclusive and effective, but also joyful. Through our advanced use of interactive Virtual Avatar Teaching Assistants, and research-backed instructional design, we deliver engaging, equitable learning experiences that meet students where they are. This white paper presents a comprehensive look at how RoboKind's CASE-endorsed curricula and Science of Reading-aligned strategies help students acquire foundational literacy, numeracy, speech, and social skills. With a focus on early childhood and neurodiverse learners, our educational solutions are designed to enhance confidence, communication, and academic achievement.

From IEP goal alignment to robust assessment and feedback tools, RoboKind ensures that students receive the structure, support, and stimulation they need to thrive. Our commitment to celebrating learner progress and building joyful classroom experiences sets us apart—and drives student success.

Our Mission & Vision

RoboKind envisions a future where every student, regardless of background or ability, has the opportunity to thrive through transformative learning experiences. Our mission is to provide equitable, engaging, and effective instruction centered on evidence-based pedagogy and powered by I-VAKT™ (Interactive Technology, Visual, Auditory, Kinesthetic, and Tactile) Techniques.

Our guiding principles prioritize inclusion, accessibility, and neurodiversity. We believe every child can learn when provided with the right environment and tools. Our technology is built not just for function, but for empathy—strengthening the bond between student and educator through shared discovery and growth.

RoboKind supports districts in creating inclusive classrooms by offering scalable solutions that embed easily into existing systems. Whether implementing Tier 1 universal instruction or Tier 3 individualized supports, our curriculum provides the flexibility and data needed to deliver instruction that works.

Foundational Curriculum Highlights

ROBOKIND® Phonics

Phonics lessons can be delivered in 1:1, small group, or whole-class formats, accommodating up to 30 students per session.

This comprehensive, multi-tiered reading curriculum is designed for early learners and students with diverse educational needs. By aligning with Scarborough's Reading Rope and integrating practices from Language Essentials for Teachers of Reading and Spelling training, RoboKind Phonics provides explicit, systematic phonics instruction. Students build decoding skills, engage in phonemic awareness routines, and interact with visual and auditory representations of phonemes, including x-ray modeled mouth movements and Sound Walls.

The curriculum includes 4 distinct units covering consonant and vowel phonemes, syllable types, and high-frequency word recognition. Assessment checkpoints occur every 10 lessons and include both pre- and post-assessments. The pre-assessment also functions as a placement tool, offering data-driven recommendations for where students should begin in the curriculum to best meet their needs.

ROBOKIND® Social Skills

Social Skills lessons can be delivered in 1:1, small group, or whole-class formats, accommodating up to 30 students per session.

Endorsed by the Council of Administrators of Special Education (CASE), our Social Skills curriculum includes more than 150 lessons and addresses critical competencies such as emotional regulation, social reciprocity, and conflict resolution. Lessons are modeled by Virtual Avatar Teaching Assistants, offering students consistent, positive feedback and real-world application opportunities.

The curriculum includes more than 150 lessons covering topics such as identifying feelings, initiating interactions, responding to conflict, and using coping strategies. These are taught through interactive activities, video modeling, and guided practice.

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Speech Articulation

Created for Speech-Language Pathologists (SLPs), this specialized curriculum focuses on speech sound production, articulation accuracy, and phonological awareness. Lessons are scaffolded, tracked, and reinforced using consistent I-VAKT™ Techniques.

The curriculum aligns with evidence-based practices outlined by the American Speech-Language-Hearing Association (ASHA), ensuring that instructional methods meet professional standards for clinical effectiveness. SLPs can deliver lessons in 1:1 or small group settings, offering flexibility for individualized support or targeted group instruction. Each SLP can manage reports and progress monitoring for up to 30 students within the RoboKind platform, streamlining documentation and goal tracking for large caseloads.

For assessment, SLPs can use a digital checklist to monitor student progress toward IEP goals and identify specific articulation challenges. The checklist allows educators to document mastery of target sounds and categorize errors based on the following four articulation error types:

Substitution – Replacing one sound with another (e.g., saying "wabbit" instead of "rabbit")

Omissions – Omitting a sound in a word (e.g., saying "ca" instead of "cat")

Distortions – Producing a sound in an unfamiliar or inaccurate way

Additions – Inserting an extra sound within a word (e.g., saying "buh-lue" instead of "blue")

ROBOKIND®
Numeracy

Numeracy lessons can be delivered in 1:1, small group, or whole-class formats, with support for up to 30 students per session.

Designed to support early numeracy development, this curriculum integrates visual supports, hands-on manipulatives, and Virtual Avatar interactions to help students build number sense, counting, pattern recognition, and problem-solving strategies through interactive math routines. The RoboKind Numeracy curriculum aligns with national math standards, including those set by the National Council of Teachers of Mathematics (NCTM) and the National Association for the Education of Young Children (NAEYC), as well as IEP goals related to number recognition, counting fluency, and foundational operations. Instruction follows the Concrete–Representational–Abstract (CRA) model, allowing students to build conceptual understanding through hands-on experiences before progressing to symbolic reasoning. Lessons are delivered using I-VAKT™ (Interactive Technology, Visual, Auditory, Kinesthetic, and Tactile) Techniques, ensuring accessibility for diverse learners through multi-sensory engagement.

ASHA-ALIGNED PRACTICES IN SPEECH INSTRUCTION

RoboKind's Speech Articulation Curriculum is grounded in the American Speech-Language-Hearing Association's (ASHA) definition of Evidence-Based Practice: the integration of current, high-quality research evidence, clinical expertise, and client perspectives.

- ✔ **Conversational Warm-Ups:** Each session begins with a rapport-building prompt encouraging full-sentence responses, fostering expressive language and communication confidence.

- ✔ **Goal Chanting:** Students verbalize their IEP-aligned goals at the start of each lesson, increasing brain-based memory and ownership of learning.

- ✔ **Skill Progressions:** Lessons follow a hierarchy from isolated sounds to words, phrases, and connected speech—scaffolded for success and fluency

- ✔ **Multisensory Instruction:** Lessons integrate video modeling, phoneme animations, mouth visuals, and tactile strategies (e.g., touching the throat to feel vibration).

- ✔ **Prompting & Reinforcement:** Students receive structured prompts, reinforcement breaks, and formative checks embedded throughout each activity.

- ✔ **Phonetic Placement Instruction:** Educators provide explicit articulator cues, supported by visuals and auditory models (e.g., X-ray phoneme videos).

- ✔ **Modeling & Shaping Techniques:** Students imitate target sounds, then build on known phonemes using shaping strategies to refine articulation.

In alignment with ASHA standards, the curriculum is designed with ongoing educator input and incorporates family resources that extend practice into the home. These components ensure clinical rigor, individualized support, and student-centered outcomes across therapy environments.

SCIENCE OF READING ALIGNMENT

RoboKind Phonics is deeply rooted in the Science of Reading and aligns with the Scarborough's Reading Rope framework. Each unit builds on core reading components such as phonemic awareness, decoding, word recognition, and language comprehension.
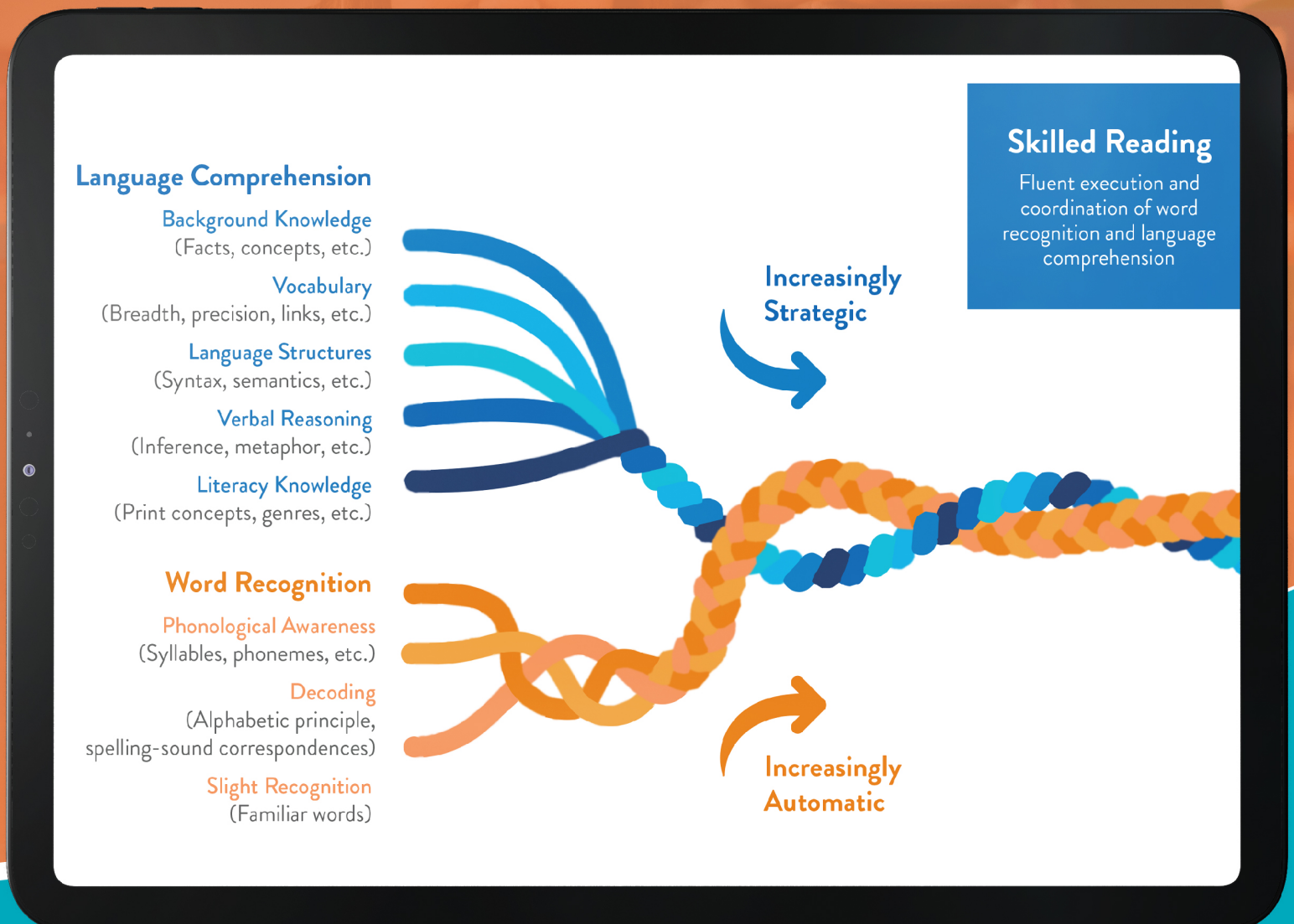
Our curriculum crosswalks with Language Essentials for Teachers of Reading and Spelling training, including instructional strategies for teaching consonant and vowel phonemes, syllable types, sight word recognition, and phonological memory. Students receive frequent opportunities for repetition, fluency-building, and comprehension through decodable texts. These evidence-based methods are embedded in every activity, ensuring students progress with both skill and confidence.

A recent impact study revealed that students using RoboKind Phonics increased their consonant-vowel-consonant (CVC) word recognition rate from 1 word per minute to 15 words per minute within one semester (RoboKind Phonics)—achieving second-grade benchmarks while still in first grade. This rapid acceleration in decoding skills underscores the effectiveness of direct, multisensory instruction embedded in RoboKind's Science of Reading-aligned approach.

Examples from RoboKind Phonics:

- **Phonemic Awareness:** Units 1 and 2 focus on phoneme isolation, blending, and segmentation using visual and audio supports.

- **Decoding:** Units 3 and 4 introduce closed, open, and r-controlled syllable types with targeted decodable passages.

- **Sight Words:** Daily word practice aligns with Dolch and Fry sight word lists.

- **Multisensory Practice:** Lessons include mirror work, x-ray phoneme videos, and tracing exercises.

Skilled Reading
Fluent execution and coordination of word recognition and language comprehension

Language Comprehension

Background Knowledge
(Facts, concepts, etc.)

Vocabulary
(Breadth, precision, links, etc.)

Language Structures
(Syntax, semantics, etc.)

Verbal Reasoning
(Inference, metaphor, etc.)

Literacy Knowledge
(Print concepts, genres, etc.)

Word Recognition

Phonological Awareness
(Syllables, phonemes, etc.)

Decoding
(Alphabetic principle, spelling-sound correspondences)

Slight Recognition
(Familiar words)

Increasingly Strategic

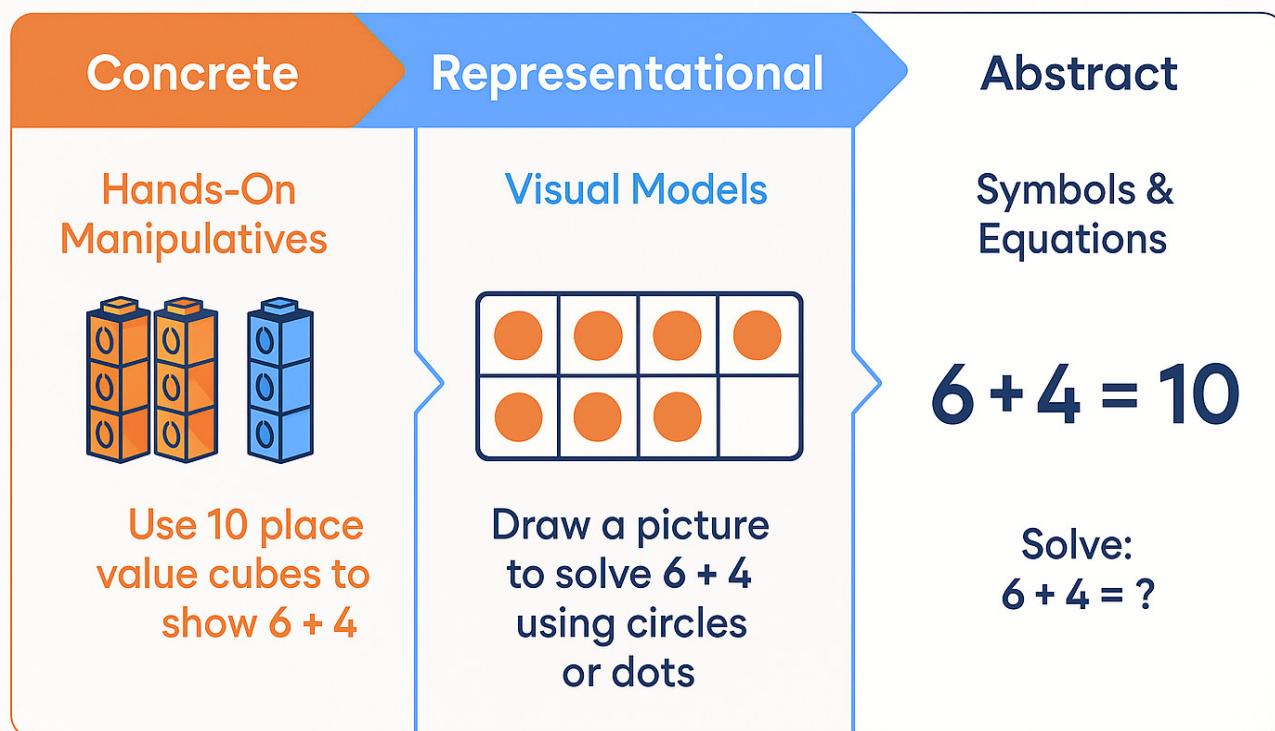Increasingly Automatic

CRA MODEL ALIGNMENT

The RoboKind Numeracy curriculum is built upon the Concrete-Representational-Abstract (CRA) instructional model, a well-established framework for developing deep mathematical understanding in early learners. CRA sequences instruction in three phases:

Concrete: Students use physical manipulatives such as counters, flashcards, dough, and base-ten blocks to explore number concepts through hands-on activity.

Representational: Learners move into visual and symbolic representations, including number lines, sorting jars, and subitizing dots.

Abstract: Finally, students engage with numerals, equations, and symbolic reasoning to solidify conceptual knowledge.

This progression allows students to first build meaning through action, then connect that meaning to symbols and language. CRA is especially effective for students with disabilities or limited verbal skills, as it provides multiple entry points and opportunities for scaffolding. Combined with I-VAKT™ Techniques, RoboKind's CRA-based instruction ensures numeracy development is accessible, engaging, and effective for diverse learners.

Concrete	Representational	Abstract
Hands-On Manipulatives	Visual Models	Symbols & Equations
Use 10 place value cubes to show 6 + 4	Draw a picture to solve 6 + 4 using circles or dots	$6 + 4 = 10$ Solve: $6 + 4 = ?$

IEP & STANDARDS INTEGRATION

RoboKind Phonics Level 1 is explicitly aligned with national literacy standards such as RF.K.1.D and RF.1.3C, and directly supports measurable IEP goals for letter recognition, sound-symbol correspondence, decoding, and word formation. Our curriculum includes pre- and post-assessments, as well as progress monitoring checkpoints every 10 lessons to help educators track growth and adjust instruction.

The program maps IEP-aligned goals like recognizing consonant digraphs, decoding CVC and CVVC words, and producing long/short vowel sounds to specific lessons. For example:

Consonant Letter Sound Recognition: Unit 1, Lessons 1–25

Short Vowel Sounds: Unit 2, Lessons 30–36

Decoding Closed Syllables: Unit 3, All Lessons

Decoding Silent E Words: Unit 4, Lessons 61–65

This standards-aligned and goal-driven approach ensures RoboKind can be easily embedded into RTI/MTSS frameworks, Title I classrooms, and special education environments to meet federal, state, and district accountability requirements

Standard	Description	RoboKind Phonics Lessons
RF.K.1.D.	Recognize and name all upper-and lowercase letters of the alphabet.	Unit 1: All Lessons, Unit 2: All Lessons
RF.K.3.A.	Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sounds for each consonant.	Unit 1: All Lessons, Unit 2: Lessons 39, 40, 41, Unit 3: 42, 43, 46, 47, 49, 50, 52, 53, 55, 56, 58
RF.K.3B.	Associate the long and short sounds with common spellings (Graphemes) for the five major vowels.	Unit 2: All Lessons
RF.K.2.	Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	Unit 3: All Lessons, Unit 4: All Lessons
RF.1.3A.	Know the spelling-sound correspondences for common consonant digraphs.	Unit 1: 8, 14, 17, 19, 25 Unit 2: Lessons 39, 40, 41, Unit 4: 66, 67, 68
RF.1.3B.	Decode regularly spelled one-syllable words.	Unit 3: All Lessons, Unit 4: All Lessons
RF.1.3C.	Know final -e and common vowel team conventions for representing long vowel sounds.	Unit 4: Lessons 61, 62, 63, 64, 65

EVIDENCE-BASED PRACTICES IN ACTION

RoboKind Social Skills curriculum embeds 22 of the 28 evidence-based practices (EbPs) recommended by the National Autism Center, ensuring robust instructional design and measurable student impact. Additionally, RoboKind Phonics, Speech Articulation, and Numeracy curricula embeds 16 of the 28 EbPs. These EbPs serve as the foundation of our pedagogy, delivering consistent, structured, and responsive experiences across settings and student needs.

Across Phonics, Social Skills, Speech Articulation, and Numeracy programs, RoboKind integrates:

Direct Instruction:

Structured, teacher and Virtual Avatar Teaching Assistant-led lessons that model, practice, and reinforce targeted skills.

Discrete Trial Training (DTT):

Short, focused instructional cycles that emphasize mastery before progression.

Video Modeling:

X-ray videos and Virtual Avatar demonstrations offer consistent, repeatable skill modeling.

Reinforcement:

RoboCoins and verbal praise reinforce effort and promote intrinsic motivation.

Parent-Implemented Intervention (PII):

Unit letters and home resources extend learning beyond the classroom.

Educators consistently report strong student engagement and implementation ease.

As Casey Hutton from South Ripley Elementary notes, "The variation that you can do is incredible. We see students use the Calm Down strategies in real-life situations, like playing on the playground."

jamie Ptacek, a speech pathologist, shared, "He is so motivating and so non-threatening that kids are willing to interact with him when they're not with their teachers. He is looked at as safe."

These firsthand insights validate the impact of RoboKind's EbP-embedded instruction on classroom dynamics and learner confidence.

Naturalistic Intervention:

Lessons simulate real-world interactions and encourage functional application of skills.

Technology-Aided Instruction and Intervention (TAII):

Virtual Avatars individualize learning and boost engagement.

Prompting and Time Delay:

Scaffolded supports gradually fade as students gain independence.

Functional Communication Training (FCT):

Virtual Avatars model socially appropriate ways to express needs and emotions.

Parent-Implemented Intervention (PII):

Unit letters and home resources extend learning beyond the classroom.

By embedding EbPs into every phase of instruction—planning, delivery, reinforcement, and generalization—RoboKind ensures each student receives instruction that is effective, research-backed, and engaging.

THE POWER OF I-VAKT™ TECHNIQUES

RoboKind envisions a future where ALL students and their teachers are able to celebrate the joy and success of learning together.

Interactive Technology: Learners engage with Virtual Avatar Teaching Assistants that model target behaviors and academic skills in real time. These tools provide feedback and adapt to student responses, creating an active learning loop.
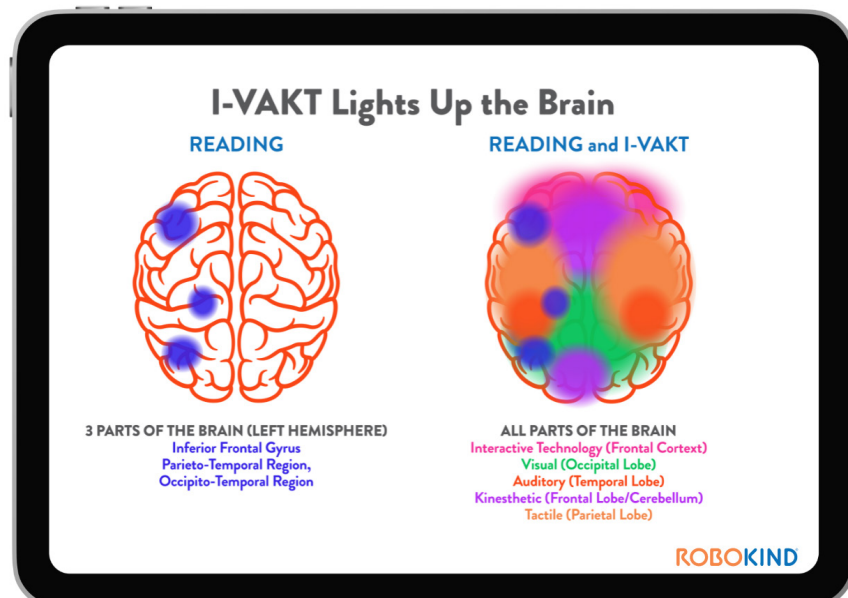
Visual: Visual materials such as the Sound Wall, Vowel Valley, flashcards, and graphical representations help students process complex ideas and retain them more effectively.

Auditory: Auditory input includes phoneme isolation, Virtual Avatar-led instructions, and sound-based games that support listening comprehension and reinforce letter-sound mapping.

Kinesthetic: Students participate in gross motor activities like hopping on word cards, acting out phoneme blends, or navigating phonics obstacle courses. These full-body movements reinforce memory and improve attention.

Tactile: Fine motor-based tasks such as forming letters with craft dough, tracing graphemes with fingers, or manipulating textured phoneme tiles enable students to connect sensory feedback with academic concepts.

This model supports universal design for learning (UDL) and ensures accessibility for students with different learning styles and neurodivergences. I-VAKT™ has shown to be especially effective for students with autism and dyslexia, creating multiple pathways for content

I-VAKT Lights Up the Brain

READING

READING and I-VAKT

3 PARTS OF THE BRAIN (LEFT HEMISPHERE)
Inferior Frontal Gyrus
Parieto-Temporal Region,
Occipito-Temporal Region

ALL PARTS OF THE BRAIN
Interactive Technology (Frontal Cortext)
Visual (Occipital Lobe)
Auditory (Temporal Lobe)
Kinesthetic (Frontal Lobe/Cerebellum)
Tactile (Parietal Lobe)

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EQUITY, SIMPLICITY, EFFECTIVENESS, AND JOY

At the heart of RoboKind's approach is our belief that learning should be both equitable and delightful. We design our programs to be:

- **Equitable**: Every lesson is built to accommodate neurodiverse learners, English Language Learners, and students with IEPs or 504 Plans.

- **Simple**: Curriculum materials are intuitive, requiring minimal training to implement effectively. Engaged 56 students in the program

- **Effective**: We have research to show the effectiveness in increasing learning outcomes for students.

- **Joyful**: From Virtual Avatar praise to multisensory games, we make learning an adventure—celebrating each student's growth through play.

Currently implemented in over 400 school districts nationwide (RoboKind District Reach), RoboKind's solutions are accessible, scalable, and effective. Educators can manage progress and resources with RoboKind Central, an educator portal designed to simplify deployment and track student data (RoboKind Features). To support success, the company provides professional development throughout the year, including Beginning-of-Year, Mid-Year, and End-of-Year training sessions (Autism Program Page).

In pilot studies, teachers have reported increased student engagement and improved classroom climate when RoboKind was introduced. The joy students express through movement, speech, and digital interaction reflects the heart of what education should be.

RoboKind is not just a curriculum—it's a movement toward a future where all children can flourish.

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At RoboKind, we don't just teach foundational skills—we build pathways to lifelong learning, agency, and connection. Our CASE-endorsed curriculum doesn't just meet compliance standards; it reshapes the learning experience with empathy, engagement, and evidence. By aligning closely with the Science of Reading and embedding 22 of the 28 nationally recognized evidence-based practices, RoboKind creates inclusive, data-informed environments where all learners can thrive.

From a kindergartener forming their first word to a fourth grader learning to navigate social nuance, every RoboKind lesson is designed to empower both the learner and the educator. The use of Virtual Avatar Teaching Assistants allows us to meet students at their level while reinforcing consistent expectations in a nonjudgmental format. Meanwhile, embedded assessments, built-in progress monitoring, and intuitive educator dashboards ensure that instruction is responsive, targeted, and adaptable.

Our vision extends beyond the classroom. By equipping schools with joyful, equitable, and effective tools for instruction, RoboKind is helping districts redefine what success looks like for students of all abilities. As we continue to evolve, we remain committed to the idea that learning is not only a right—but a celebration. RoboKind is leading the charge to make foundational skills accessible, effective, and engaging for every learner—and empowering the teachers who serve them.

Where other programs leave students alone with screens or educators juggling disjointed tools, RoboKind steps in—with curriculum that connects, supports, and inspires.

Join the hundreds of schools reimagining special education with RoboKind. Visit robokind.com/teachers to see how we support equity, engagement, and outcomes for all learners.

Learn more at **RoboKind.com**

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