

A GUIDE TO

TEACHTOWN'S

**EVIDENCE-BASED
PRACTICES**





OUR MISSION

TEACHTOWN WAS FOUNDED WITH ONE CLEAR MISSION—to measurably improve the academic, adaptive, and behavioral skills of students with moderate to severe disabilities. Our adapted core curriculum and key interventions offer complex learners with equitable, inclusive access to the general education curriculum and support a whole child approach.

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THE WHOLE CHILD APPROACH

The *Whole Child Approach* honors the humanity of each student.

From early childhood through the transition years, students are multifaceted learners with individual strengths, needs, and abilities. While reading comprehension and math competency are

foundational skills and critically important for K-12 education, so, too, are the abilities to self-advocate, problem-solve, manage time, and develop healthy peer relationships.

That’s why we offer enCORE alongside our supporting interventions that address the adaptive, social, and behavioral needs of students. TeachTown teachers have the evidence-based tools they need to effectively teach core academics *and* functional academics, adaptive skills, social skills, and transition skills.

The Whole Child Approach honors the humanity of each student.



WHAT IS ENCORE?

enCORE is our standards-based, K-12 adapted core curriculum designed for students with moderate to severe disabilities, including Autism spectrum disorders and intellectual & developmental disabilities (IDD). Created by a team of education experts with both classroom and clinical experience, enCORE boasts a strong foundation of evidence-based teaching practices that have been proven time and again to be effective with this student population in formal research studies.

enCORE offers an advanced blended learning model, seamlessly integrating both teacher-led instruction in the classroom and technology-facilitated lessons tailored to the specific learning needs of students. All components of enCORE are structured to flow through a gradual release of responsibility, appropriately challenging students as they are guided from exposure to mastery of learning objectives.

Both the scripted classroom-based lesson plans and the technology-facilitated lessons are differentiated to three levels of support, with Level 1 representing students with the greatest support needs and Level 3 serving students who are ready for more independence. The enCORE learning platform allows teachers to create customized lessons based on students' IEP goals, and it automatically differentiates content based on student response. enCORE offers a robust data collection and analytics suite that helps teachers to analyze student progress by usage, growth, state standard, and more.

TEACHTOWN'S EVIDENCE-BASED PRACTICES

All TeachTown curricula are firmly rooted in evidence-based instructional practices that have been proven to be effective for students with moderate to severe disabilities in formal research studies. It is worth noting here what we mean when we say “evidence-based practices”–

According to federal education law, the term *evidence-based practice (EBP)* refers to an activity, strategy, or intervention that demonstrates a statistically significant effect on improving student outcomes.

In other words, an EBP is an instructional practice that has been validated through an [acceptable](#) level of consistent, high-quality, empirical research rather than through a single study, anecdote, or professional experience alone.

The [Every Student Succeeds Act](#) (ESSA) gives states and districts flexibility in choosing which EBPs to implement. This allows states and districts to prioritize the curricula, instructional strategies, and interventions that are most likely to yield successful student outcomes while also supporting the use of EBPs that are most appropriate to local needs.

TeachTown has designed its core academic curriculum and supporting interventions with the evidence-based practices supported by the literature to **measurably improve the academic, adaptive, and/or behavioral outcomes for students with moderate to severe disabilities**, including students with autism, students with intellectual and/or developmental disabilities, and students who have emotional and/or behavioral challenges in addition to intellectual and developmental disabilities.

Continue reading to learn about TeachTown’s evidence-based practices and the research that supports them.





PRINCIPLES OF APPLIED BEHAVIOR ANALYSIS

The evidence-based practices of TeachTown’s solutions largely fall under the umbrella of Applied Behavior Analysis (ABA). ABA is a practice-based science and instructional methodology

in which the principles of learning and behavior are used to teach socially significant skills.

These skills are taught in accessible, achievable steps so that learners can master multi step tasks one step at a time. Many of the key instructional strategies of ABA used to teach academics have been shown to be effective for students without disabilities, students with high incidence disabilities, and students with moderate to severe disabilities.

The evidence-based practices of TeachTown’s solutions largely fall under the umbrella of Applied Behavior Analysis (ABA).

ABA has a nearly 70 year history within the autism community, beginning in the 1960s with its founder, [Dr. Ivar Lovaas](#), in research out of UCLA. Its roots are clinical. Many children with autism worked 1:1 with an ABA-therapist to develop the social skills and behaviors that enabled them to succeed in their educational and community environments. Over time, ABA expanded into the school setting and special education teachers began implementing evidence-based instructional practices that fall under ABA, like the system of least prompts or the use of time delay (for example). In recent years, as our culture has shifted to celebrate neurodiversity, questions have risen about ABA’s continued place as the prominent research backing for instructional practices for students with autism. Shouldn’t we be accepting and celebrating the unique traits and characteristics that describe individuals with autism rather than “treating” them? After all, characteristics of autism, like difficulty reading social cues and sensory sensitivities, may show up in typically developing students as well.



At TeachTown, we contend that two things are true:

1. Students with autism and intellectual and developmental disabilities demonstrate measurable, positive outcomes from the evidence-based instructional practices identified by ABA. These instructional practices are supported by empirical research.
2. Neurodiversity is to be celebrated! Students with learning and behavioral differences are valued members of the school community with unique strengths and perspectives to share—as is true of their typically developing peers.

[TeachTown] embeds into the classroom setting the instructional strategies that made ABA so effective, while maintaining a commitment to celebrating, honoring, and encouraging student choice, individual identity, and the diversity of our students that enriches our world.

Of note, TeachTown's enCORE does not provide (or instruct teachers to provide) ABA *therapy*. Instead, it embeds into the classroom setting the instructional strategies that made ABA so effective, while maintaining a commitment to celebrating, honoring, and encouraging student choice, individual identity, and the diversity of our students that enriches our world.

The evidence-based instructional practices that align with the principles of ABA and are embedded throughout all academic domains of enCORE K-12 and key supporting interventions are:

- Systematic, explicit instruction
- Task analytic instruction (breaking a skill down into smaller, manageable steps)
- Anchoring instruction (connecting new learning to prior knowledge)
- Previewing instruction
- Visual supports (anchor charts, reference tables, images graphic organizers)
- Prompting; utilizing the system of least prompts
- Reinforcement
- Use of time delay
- Errorless learning
- Specific corrective feedback
- Multiple trials (e.g., multiple opportunities to practice)
- Regular assessments
- Naturalistic training, or opportunities for generalization of skills
- Video modeling*

**All programs include video-modeling except Meta-Play*

SYSTEMATIC, EXPLICIT INSTRUCTION

The use of systematic, explicit instruction involves teaching a specific concept or procedure in a highly structured and carefully sequenced manner.

While many subject matter experts consider systematic, explicit instruction to be part of ABA, this [instructional methodology](#) has been shown to be effective in general education and special education settings and for students with mild to moderate disabilities as well as students with moderate to severe disabilities.

Meaning, its application is broader than the target student population of ABA.

All TeachTown solutions utilize systematic, explicit instruction, which is typically implemented through the **gradual release of responsibility** framework, or the 'I Do, We Do, You Do' model. This is also known as *Model, Lead, Test*.

All TeachTown solutions utilize systematic, explicit instruction.

enCORE guides teachers to move through each of these key components of [systematic, explicit instruction](#) in ELA, Math, Science, and Social Studies. enCORE teachers will:

- Clearly identify the new skill students will learn
- Connect the new skill to previous learning (e.g., anchoring instruction)
- Give precise instructions for what students should do as instruction of the new skill begins
- Provide **direct instruction** by modeling the new skill in a step-by-step manner
 - **Scripting** to guide direct instruction
 - **Think alouds** (verbalize thought process while modeling how to do the new skill)
 - **Read alouds** (ELA) to model reading comprehension and word solving skills
- Facilitate **guided practice** opportunities with scaffolded supports, including:
 - Sequencing tasks from easy to more difficult
 - Using a system of least prompts
 - Errorless learning
 - Time delay
 - Conducting repeated trials (e.g., multiple opportunities to practice the skill)
 - Offering specific corrective feedback
 - Conducting regular assessments (e.g., formative assessments)
- Monitor **independent practice** when students work on the new skill independently
 - Offering specific corrective feedback
 - Reteaching the skill when necessary

Throughout explicit instruction, teachers are encouraged to reinforce correct practice as well as the behaviors that support continued learning. For example, teachers may offer specific praise to a student by saying, “You showed your work when you solved this math problem. Great job!” or “I noticed you raised your hand when you got stuck on that part. Great work asking for help!” Students may also receive reinforcement through reward games and activities embedded within the curricula.

Visual supports, such as anchor charts, images, reference tables, and graphic organizers, are incorporated throughout the lesson plans, classroom materials, and technology-facilitated lessons.

EVIDENCE-BASED PRACTICES OF ENCORE K12 BY ACADEMIC DOMAIN

There are domain-specific evidence-based practices embedded throughout enCORE.

ELA

The ELA domain of enCORE was built with the belief that all students can learn to read, whether reading is defined as reading a text for oneself or through the assistance of an e-reader. Central to the ELA domain is access to high-quality, grade-appropriate fiction and non-fiction books as well as other types of literature beginning in kindergarten and continuing through high school. Research shows that literacy instruction works best when it is embedded within literature, which is why we created units based on age-appropriate literature titles across genres.

The types of literature change as a student progresses across grade levels. To support students' active engagement with different genres of literature and different levels of text complexity, enCORE directs teachers to pair read alouds with explicit instruction.

The entire ELA domain of enCORE is supported by evidence-based instructional practices:

- enCORE ELA is thoroughly aligned with the 5 components of skilled reading identified in the 2000 National Reading Panel report
- enCORE ELA incorporates multiple evidence-based practices of ABA
- enCORE ELA follows a model of systematic, explicit, sequential, and multi-component instruction throughout each lesson

Here is a brief sampling of the literature titles of our **945** total adapted books across K-12:



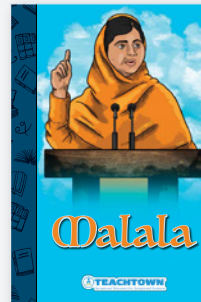
K-2

Three Little Pigs
How Things Look and Feel
Jack and the Beanstalk
Plants



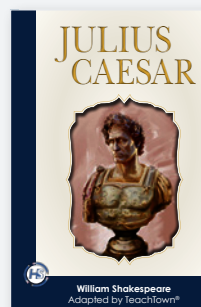
3-5

Alice in Wonderland
Telling Time
The Velveteen Rabbit
Staying Healthy



6-8

Journey to the Center of the Earth
Malala
White Fang
Anne Frank: Diary of a Young Girl



9-12

The Stands of Time
The Time Machine
Julius Caesar
A New Way Home
Beowulf
The Odyssey

ENCORE & THE SCIENCE OF READING

The Science of Reading is a broad term that encompasses a [vast, interdisciplinary body of scientifically-based research](#) about reading and issues related to reading and writing. The National Reading Panel, composed of 14 experts in the field of literacy instruction, conducted a meta-analysis to review all the available research on different literacy practices. Their 2000 [report](#) found that to become good readers, children need instruction in 5 skill areas:

- Vocabulary
- Phonemic Awareness
- Phonics
- Fluency
- Text Comprehension

The National Reading Panel [report](#) describes the importance of the 5 components listed above working together to develop skilled readers. Another important finding of the National Reading Panel's 2000 report is that the instructional strategies used to teach the 5 components listed above matters. enCORE provides thorough and explicit instruction in each of the 5 components across all grade bands which aligns with the findings of the National Reading Panel's report.

enCORE Teaches Vocabulary

Every unit of enCORE K-12 pre-teaches the vocabulary that is important to the meaning of that unit's literature. The vocabulary targets were chosen to be useful for students in daily situations. The vocabulary words are embedded in the text multiple times so that students have multiple opportunities to engage with the words and develop deeper semantic knowledge.

Vocabulary instruction is incorporated into the teacher lesson plans, as well as within the technology lessons in order for the students to have repeated exposures with multiple exemplars. At the middle and high school level, enCORE incorporates vocabulary graphic organizers to develop deeper semantic knowledge of vocabulary targets.



enCORE provides thorough and explicit instruction in each of the 5 components across all grade bands which aligns with the findings of the National Reading Panel's report.



enCORE Teaches Phonemic Awareness

Explicit instruction in speech sounds, separate from the letters that represent them, is built into every grade band of enCORE:

- enCORE (K-2) teaches phonological skills (such as rhyming) and phoneme awareness skills sequentially by following a developmental progression.
- enCORE (3-5) begins teaching phonological awareness at the word level and progresses to the phoneme level. It also reviews all of the skills taught in enCORE (K-2).
- enCORE Middle School (6-8) and High School (9-12) includes phonemic awareness skills in the Skills Review unit for those students that it may be appropriate for.

enCORE Teaches Phonics and Word Study

enCORE K-12 contains explicit, systematic, and cumulative phonics instruction across every unit, and also covers morphological awareness.

enCORE (K-2) phonics instruction begins with single sound-letter correspondences and short vowels and progresses through digraphs, initial and final blends, common inflections, and silent “e” (see Table 1 for examples). Decoding is also addressed at the word level. Words selected for decoding practice are embedded in the literature selections for the unit, and include only letters that have been previously taught.

Consonants	Short Vowels	Digraphs	Initial Blends	Final Blends	Common Inflections	Silent “e”
“m” says /m/, as in “mother”	“a” says /ă /, as in “apple”	“sh” says /sh/, as in “short”	“sp” says /sp/, as in “spoon”	“nd” says /nd/, as in “hand”	“s” can say /s/, as in “lights,” /z/ as in “balls,” or /z/ as in “watches”	“a” says /ā/, as in “space” because of the silent “e”

Table 1. Phonics targets and examples

enCORE (3-5) addresses phonics instruction the same way as enCORE (K-2) but at an accelerated pace. It addresses the full scope of phonics instruction including vowel teams, vowel digraphs, r-controlled vowels, word patterns, and the most common prefixes and suffixes. Decoding again only contains words where every letter-sound correspondence has been previously taught. enCORE 3-5 also teaches morphological awareness, or meaningful word parts including prefixes, suffixes, and base words.

enCORE Middle School contains a phonics review within every unit that focuses on sound-letter correspondences, decoding, and spelling.

enCORE High School contains instruction with every unit on rimes (e.g., “op” as in “stop,” “hop,” and “drop”). Students are taught to decode and spell one of the most commonly occurring rimes in each unit.

enCORE Teaches Fluency

Repeated reading is an [evidence-based practice](#) for building fluency. Repeated readings of the same text are embedded in the enCORE implementation guide within every unit. For example, students have the opportunity to read from the unit's book or companion literature (with and without icons), read from the e-Reader, or have the e-Reader read to them. Reading with a model is another useful instructional tool for developing fluency. During read alouds, lesson plans signal students to not only listen to the teacher model fluent reading, but also to read along with the teacher's voice. In addition to these strategies, enCORE focuses on developing foundational word-level skills, such as letter-sound correspondence and word recognition, that underlie fluent reading of connected text.

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enCORE Teaches Text Comprehension

Every unit of enCORE K-12 focuses on text comprehension in several different ways. All grade bands utilize the following evidence-based practices to teach comprehension:

- Activating background knowledge
- Making the text relevant to students' lives
- Previewing the text
- Summarizing the text
- Explicitly teaching the structure of narrative and expository texts
- Use of graphic organizers including story maps
- Applying information to real-world scenarios
- Modeling comprehension strategies through *think alouds*
- Answering questions during shared reading of leveled texts

Before reading, every lesson segment from Kindergarten through 12th grade begins with an activity to make the text relevant to students' lives or to activate and build background knowledge. This is called anchoring instruction.

enCORE Elementary contains leveled comprehension questions for every book, as well as a recall or sequencing activity.

enCORE Middle School contains leveled comprehension questions for every chapter in the adapted chapter books and for every companion text, as well as a review/recall technology lesson and direct instruction via graphic organizers that focus on story grammar elements, character maps, poetry elements, main ideas, etc.

enCORE High School contains everything that enCORE Middle School contains as well as additional comprehension application activities that focus on making text-to-text, text-to-self, and text-to-world connections.

ADDITIONAL EVIDENCE-BASED PRACTICES IN ENCORE ELA

In addition to addressing vocabulary, phonemic awareness, phonics, fluency, and text comprehension, enCORE ELA also targets skill areas that emerging research shows as being important, including morphological awareness. Morphological awareness is explicitly targeted in each grade band.

enCORE ELA and Orton-Gillingham

The [Orton-Gillingham Approach](#) is a way of teaching for students struggling to learn to read and write, including those with dyslexia. The Orton-Gillingham Approach is just that—an approach. It is not a program. Rather, it involves direct, explicit, multisensory, structured, sequential, diagnostic, and prescriptive instruction. The Orton-Gillingham Approach is typically implemented in individual or small group settings. The ELA domain of enCORE K-12 incorporates several of the key components of the OG Approach.

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MATH, SCIENCE, AND SOCIAL STUDIES

The math, science, and social studies domains of enCORE K-12 incorporate all of the evidence-based instructional practices identified in the sections above about Applied Behavior Analysis and systematic, explicit instruction. There are a handful of additional EBPs that are unique to each domain.

MATH

Research supports the use of concrete representations (or, math manipulatives like ten-frames and counting toys), anchored instruction, and technology in math instruction for students with moderate to severe disabilities. These evidence-based instructional practices help make math concepts and operations less abstract and more concrete and relevant to students' lives.

Concrete representations, or math manipulatives, are available throughout the enCORE curriculum for elementary, middle, and high school students.

The teacher-led and student-led math lessons in the enCORE learning platform support the use of concrete representations in the form of virtual manipulatives, such as visuals (on the screen) that represent a given quantity. Technology is also used to help anchor instruction by making the math operations more applicable to day-to-day activities.

Additionally, [literature reviews](#) identify the use of math stories that represent real life scenarios as an evidence-based practice for teaching math. This is one way to anchor instruction. Math stories are a strategy commonly used to teach math for typically developing students, at-risk students, and students with high-incidence disabilities. (They are effective for all learners!) Math instruction in every unit of enCORE is anchored in problems that are meaningful by using the literature embedded in the curriculum. For example, word problems designed to teach problem-solving skills and basic math operations focus on the characters and scenarios for the book that anchors that particular unit.

enCORE ELEMENTARY
 TEACHTOWN

Manipulatives Kit Item List

Item Name	Quantity per Kit
Magnetic Whiteboard	1
Magnetic Letters	1 set of 26
Magnetic Numbers	1 set of 10
Magnetic Picture Pockets	20
Magnetic Display Trays	6
Pocket Dice	1
Blank Puzzle Pieces	52
World Map	1
Inflatable Globe	1
Large Dry Erase Pockets	6
Wooden Food	1 set of 6-10
Money Set	1
Wooden Clock	1
Measuring Cups	5 total (1, 1/2, 1/3, 1/4, 1/8)
Measuring Spoons	6 total (1 tbsp, 1/2 tbsp, 1 tsp, 1/2 tsp, 1/4 tsp, 1/8 tsp)
Dry Erase Grid Board	1
Pan Balance	1
3D Shapes	1 set of 6
Fraction Circles	1 set of 5

Item Name	Quantity per Kit
Magnifying Glass	1
Reading Strips	6
Shapes and Attributes Block Set	1 set of 60
Unilink Cubes	1 set of 100
Plastic Jar	3
Ribbon Wand	1
Demonstration Thermometer	1
Color Spinners	6
Number Lines	6
Counting Frame	1
Ten Frame Cards	7

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enCORE MIDDLE SCHOOL
 TEACHTOWN

Manipulatives Kit Item List

Item Name	Quantity per Kit
Magnetic Whiteboard	1
Magnetic Letters	1
Magnetic Numbers	1
Magnetic Picture Pockets	20
Magnetic Display Trays	6
Pocket dice	1
Beaker	3
Graduated Cylinder	3
Measuring Cups	5 total (1, 1/2, 1/3, 1/4, 1/8)
Measuring Spoons	6 total (1 tbsp, 1/2 tbsp, 1 tsp, 1/2 tsp, 1/4 tsp, 1/8 tsp)
Inflatable Globe	1
Large Dry Erase Pockets	6
Petri Dishes	3
Money Set	1
Tabletop Scale	1
Prisms	1
Dry Erase Grid Board	1
Solar System Poster	1
Write and Wipe U.S. Map	1
World Map	1

Item Name	Quantity per Kit
Thermometer	3
Fraction Circles	1 set of 5
Magnifying Glass	1
Reading Strips	6
Shapes and Attributes Block Set	1 set of 60
Unilink Cubes	1 set of 100
Plastic Jar	3
Compass	3
Geometric Nets	1 set of 12-14
Number Lines	6
Geosolids	1 set of 14
Classroom Calculator	1
Color Spinner	1
Dry Erase Number Lines	6

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The lesson plan snapshot below shows a sample word problem related to the characters and scenarios from Unit 23 of enCORE Elementary School. The book for this unit is *The Swiss Family Robinson*. Students practice modeling single-digit addition and subtraction math problems through the context of the characters in the Robinson family (e.g., collecting sticks, building a fire, etc.)

UNIT 23 ★ MATHEMATICS				
	LEVEL 1	LEVEL 2	LEVEL 3	
	<p>Then, I need to see how many hot dogs are left. I will move the counters that are left in the first circle to the last circle. Follow the dotted gray line to move the remaining counters from the first circle to the last circle.</p> <p>Last, I count how many hot dogs are left. Count counters in the last circle aloud. One. One hot dog. There is one hot dog left. Seven minus six equals one. I will write the answer in the number sentence on the whiteboard.</p>			
LEAD	<p>Use Level 1 Word Problem List Worksheet, Subtraction Graphic Organizer Worksheet, and Unlink Cubes (as counters). Give Level 2 and 3 students their worksheets and a pencil.</p> <p>Let's work together. Use second word problem on Level 1 Word Problem List Worksheet.</p> <p>First, we need to read the problem and find out what information is key. Key information is information that will help us solve, or find the answer.</p> <p>The Robinson family found six sticks in the woods. They used two sticks to make a fire. How many sticks are left?</p> <p>What is one piece of key information? Call on student to respond. Support students in identifying the following key information: They found six sticks, they used two sticks, and we need to solve to find how many sticks are left. Once students have given you all of the key information, repeat it aloud as: They found six sticks, they used two sticks, and we need to solve to find how many sticks are left.</p> <p>Have Level 2 and 3 students write/trace this subtraction problem in the number sentence for the example problem on their worksheets.</p> <p>Next, we fill in our graphic organizer. How many counters do we put in the first circle? Call on student to respond. Why do we put six counters in the first circle? Call on Level 3 student to respond. Have a student place six counters in the first circle.</p> <p>Then, how many counters do we move to the middle circle? Call on student to respond.</p> <p>Why do we move two counters to the middle circle? Call on Level 3 student to respond. Have a student move two counters to the middle circle.</p> <p>Then, we need to see how many sticks are left. How do we see how many sticks are left? Call on student to respond. Yes, we follow the line to move the counters that are left in the first circle to the last circle. Call on a student to follow the dotted gray line to move the remaining counters from the first circle to the last circle.</p> <p>Finally, we count our answer. What do we count? Call on student to respond. Yes, we count the counters in the last circle. Call on student to count the counters in the last circle. What is our answer? Call on student to state that the answer is four sticks. Six minus two equals four.</p> <p>Have Level 2 and 3 students write/trace the answer in the number sentence on their worksheets.</p>			
		<p>Use Level 1 Word Problems on Word Problem List Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read problem.</p> <p>Let's talk about the key information. Tell the student the key information.</p>	<p>Use Level 2 Word Problem Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read the first problem on the worksheet.</p> <p>What is one piece of key information?</p>	<p>Use Level 3 Word Problem Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read the first problem on the worksheet. What is one piece of key information?</p>
		<p>Use Level 1 Word Problem List Worksheet, Subtraction Graphic Organizer Worksheet, and Unlink Cubes (as counters). Give Level 2 and 3 students their worksheets and a pencil.</p> <p>Let's work together. Use second word problem on Level 1 Word Problem List Worksheet.</p> <p>First, we need to read the problem and find out what information is key. Key information is information that will help us solve, or find the answer.</p> <p>The Robinson family found six sticks in the woods. They used two sticks to make a fire. How many sticks are left?</p> <p>What is one piece of key information? Call on student to respond. Support students in identifying the following key information: They found six sticks, they used two sticks, and we need to solve to find how many sticks are left. Once students have given you all of the key information, repeat it aloud as: They found six sticks, they used two sticks, and we need to solve to find how many sticks are left.</p> <p>Have Level 2 and 3 students write/trace this subtraction problem in the number sentence for the example problem on their worksheets.</p> <p>Next, we fill in our graphic organizer. How many counters do we put in the first circle? Call on student to respond. Why do we put six counters in the first circle? Call on Level 3 student to respond. Have a student place six counters in the first circle.</p> <p>Then, how many counters do we move to the middle circle? Call on student to respond.</p> <p>Why do we move two counters to the middle circle? Call on Level 3 student to respond. Have a student move two counters to the middle circle.</p> <p>Then, we need to see how many sticks are left. How do we see how many sticks are left? Call on student to respond. Yes, we follow the line to move the counters that are left in the first circle to the last circle. Call on a student to follow the dotted gray line to move the remaining counters from the first circle to the last circle.</p> <p>Finally, we count our answer. What do we count? Call on student to respond. Yes, we count the counters in the last circle. Call on student to count the counters in the last circle. What is our answer? Call on student to state that the answer is four sticks. Six minus two equals four.</p> <p>Have Level 2 and 3 students write/trace the answer in the number sentence on their worksheets.</p>		
		<p>Use Level 1 Word Problems on Word Problem List Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read problem.</p> <p>Let's talk about the key information. Tell the student the key information.</p>	<p>Use Level 2 Word Problem Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read the first problem on the worksheet.</p> <p>What is one piece of key information?</p>	<p>Use Level 3 Word Problem Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read the first problem on the worksheet. What is one piece of key information?</p>
	TEST	<p>Use Level 1 Word Problems on Word Problem List Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read problem.</p> <p>Let's talk about the key information. Tell the student the key information.</p>	<p>Use Level 2 Word Problem Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read the first problem on the worksheet.</p> <p>What is one piece of key information?</p>	<p>Use Level 3 Word Problem Worksheet.</p> <p>First, I will read the problem to you.</p> <p>Read the first problem on the worksheet. What is one piece of key information?</p>

Additionally, math-specific visual supports (such as number lines and multiplication tables) are incorporated throughout every grade of enCORE Math. In the word problem from Unit 23, inquiry students use Unilinks Cubes and graphic organizers to solve the math story that asks, “How many sticks are left?”

SCIENCE

Teaching science offers students the opportunity to develop an understanding of the natural world and it promotes curiosity to learn how and why things work. enCORE Science, which is aligned with state and national science standards, is grounded in both inquiry-based learning and systematic, explicit instruction to teach key concepts.

enCORE Science, which is aligned with state and national science standards, is grounded in both inquiry-based learning and systematic, explicit instruction to teach key concepts.

enCORE Science was intentionally designed to incorporate high-priority vocabulary instruction at the start of each lesson and then build upon it throughout the lesson to provide students with repeated exposures

to target words. Constant time delay is part of the systematic instruction that has specifically been shown to support teaching science vocabulary.

All grade bands of enCORE Science include inquiry-based learning, which is recommended by the National Science Education Standards in their 2020 report. In enCORE, inquiry-based learning typically includes hands-on activities and experiments to provide students with the multisensory experiences of seeing, hearing, feeling, smelling, or tasting the concepts in action. This multisensory learning supports students with different strengths and areas of need. Additionally, the text-based content (e.g., companion texts in middle school and high school, as well as some chapter books in elementary school) help students connect their reading to science-specific content and anchor their learning of science concepts in a meaningful way.

Two samples of companion texts are shown below:

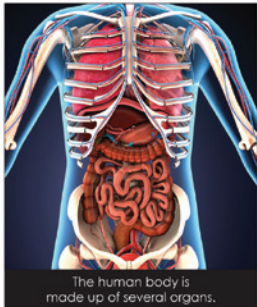
TEACHTOWN Unit 82 Lesson 2 • Science Companion Text

Organs and Organ Systems

By TeachTown®

Our bodies are like machines. We are made of many different parts that work together to perform a specific function.

Our bodies are made up of organs and organ systems that all work together to keep



The human body is made up of several organs.

enCORE © 2023 TeachTown®. All rights reserved. Organs and Organ Systems ★ 1

TEACHTOWN Unit 84 Lesson 1 • Science Companion Text

Human Health Issues

By TeachTown®

It is very important to practice healthy living habits. These habits include eating healthy foods, being active, and visiting the doctor regularly.

We can try our best to stay healthy. However, sometimes we may still get sick. Unfortunately, there are hundreds of



Forming healthy living habits is important.

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SOCIAL STUDIES

Just like the ELA, Math, and Science domains, the Social Studies domain of enCORE incorporates all of the evidence-based best practices identified in earlier sections about Applied Behavior Analysis and systematic, explicit instruction. enCORE Social Studies also incorporates **high-priority vocabulary instruction** at the start of each lesson and then

Inquiry-based research activities move students from recall to deeper understanding, supporting our overall vision of appropriately challenging students to move beyond exposure to mastery of new skills.

builds upon it throughout the lesson to provide students with repeated exposures to target words. **Inquiry-based research activities** move students from recall to deeper understanding, supporting our

overall vision of appropriately challenging students to move beyond exposure to *mastery* of new skills. Finally, **text-based content** (e.g., companion texts in middle school and high school, as well as some chapter books in elementary school) help students connect their reading to social studies-specific content.

A handful of companion texts are shown here:

TEACHTOWN Unit 64 Lesson 2 • Social Studies Companion Text

Cultural Diffusion

By TeachTown®

Culture is what makes countries unique. Culture consists of the common beliefs, customs, and behaviors shared by a society. It includes religion, food, clothing,

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TEACHTOWN Unit 66 Lesson 2 • Social Studies Companion Text

Constantinople

By TeachTown®

Influential civilizations often develop around large cities. These cities have served as the capitals of many of the world's most important empires. Some of these

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TEACHTOWN Unit 64 Lesson 1 • Social Studies Companion Text

Historical Eras

By TeachTown®

Human beings have walked the Earth for about 2.5 million years. However, the lifestyle of human beings has changed again and again throughout history.

Historians have studied writings, buildings, artifacts, and technology of the past to understand more about

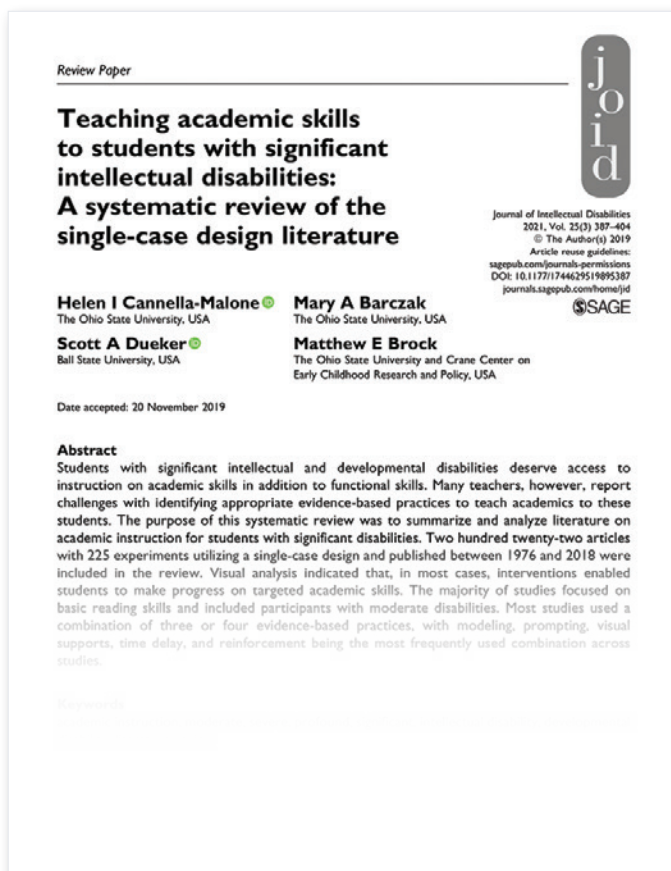
The Great Sphinx and pyramids of ancient Egypt

enCORE © 2023 TeachTown®, All rights reserved. Historical Eras • 1

RESEARCH STUDIES THAT SUPPORT TEACHTOWN'S EVIDENCE-BASED PRACTICES

A literature review is a systematic analysis and evaluation of the studies published on a topic in order to provide an up-to-date summary of the level of scientific research on the topic. Systematic literature reviews use a rigorous publication review process to yield the most relevant and quality research. They include searching the literature, screening articles for inclusion based on criteria, employing standards to evaluate the quality of the methodology of each article, and extracting and summarizing data from the articles.

TeachTown's evidence-based practices are supported by accumulated evidence from over a decade of research in the following literature reviews—



ALL CONTENT AREAS

In 2021, authors Cannella-Malone, Barczak, Dueker, & Brock conducted a systematic review of the literature on academic instruction for students with significant disabilities, analyzing 222 articles with 225 experiments utilizing a single-case design between 1975-2018. In most cases, interventions enabled students to make progress on targeted academic skills. Most studies used a combination of three or four evidence-based practices, with **modeling, prompting, visual supports, time delay, and reinforcement** being the most frequently used EBPs across studies in this review.

LITERACY

Reading instruction for students with intellectual disabilities has historically focused on single skill instruction, specifically just on sight word reading. Authors Afacan, Wilkerson, & Ruppard conducted a literature review in 2018 of seven empirical articles to examine the characteristics, outcomes, and quality of multi-component reading interventions for students with intellectual disabilities, given that multi-component reading interventions have been linked to improved reading skills across multiple reading components for students in general education. *Multi-component* reading instruction refers to the five components of reading that work together to develop skilled reading, including phonemic awareness, phonics, vocabulary, text comprehension, and fluency. The researchers found that students with intellectual disabilities who were exposed to multi-component reading programs *significantly* improved their reading skills compared to their peers who received traditional sight word instruction.

MATH

Researchers Bowman, McDonnell, Ryan & Fudge-Coleman conducted a systematic review to identify the most up-to-date research related to teaching mathematics to students with moderate to severe disabilities. The studies confirmed the effectiveness of utilizing systematic, explicit instruction to teach a wide range of academic skills, including complex math concepts. The researchers also identified task analytic instruction, response prompting and fading, visual supports, use of time delay, concrete representations, anchored instruction, and instructional technology, all of which are incorporated into the math domain of enCORE.

Article

Multicomponent Reading Interventions for Students With Intellectual Disability

Kemal Afacan, MS¹, Kimber L. Wilkerson, PhD¹, and Andrea L. Ruppard, PhD¹

Abstract

Reading instruction for students with intellectual disability (ID) has traditionally focused on single skill instruction such as sight word reading. Given that multicomponent reading interventions have been linked to improved reading skills across multiple reading components for students in general education, it is logical to examine the impact of multicomponent reading interventions for students with ID. The purpose of this literature review was to examine characteristics, outcomes, and quality of multicomponent reading interventions for students with ID. In this review, seven empirical articles fit the inclusionary criteria. Findings indicate that students with ID who were exposed to multicomponent reading programs significantly improved their reading skills compared to their peers with ID who received traditional sight word instruction or to their previous reading performance. This literature review highlights effective strategies used to provide multicomponent reading instruction to students with ID. Implications for reading instruction for students with ID are provided, along with implications for future research.

Keywords

multicomponent, reading instruction, literacy, intellectual disability

More than 430,000 students between the ages of 6 and 21 received special education services under the intellectual disability (ID) category during the 2011–2012 school year (U.S. Department of Education, 2013). These students represented nearly 7.4% of all students receiving special education services and less than 1% of the total school population. Compared with students receiving services in other disability categories, as well as to their peers without disabilities, students with ID usually have less well-developed reading skills (Wei, Blackorby, & Schiller, 2011). Four in five students with ID did not achieve even minimum levels of proficiency in reading, mathematics, or

The Importance of Multicomponent Reading Instruction

Federal laws such as No Child Left Behind (NCLB; 2002) and the Individuals With Disabilities Education Improvement Act of 2004 (IDEA; 2004) mandate that schools achieve improved outcomes in reading for all students, including students with disabilities. These policies require that all students have access to age-appropriate, meaningful, and evidence-based reading instruction that promotes successful outcomes in the least restrictive environment (LRE). However, recent statistics (Council on Educational Research

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Review

Effective Mathematics Instruction for Students With Moderate and Severe Disabilities: A Review of the Literature

Jessica A. Bowman, MEd¹, John McDonnell, PhD¹, Joanna H. Ryan, MEd, BCBA¹, and Olivia Fudge-Coleman, MEd¹

Abstract

Educational programs for students with moderate and severe disabilities (MSD) have undergone drastic changes since the mandate for access to the general curriculum was provided by Individuals With Disabilities Education Act. Since then, educators have struggled to find methods to use to promote optimal learning, including in the area of mathematics. The purpose of this systematic literature review was to provide an update on research related to teaching mathematics to students with MSD published from 2005 to 2017. Results from the included studies indicated that mathematics research has started to diversify in the skills that are being taught to this population. In addition to skills taught, current research has continued to inform the field on some promising methods that can be used to teach a broader range of mathematics skills. Emerging strategies that were identified included the use of concrete representations, anchored instruction, and instructional technology. Suggestions for future research are discussed.

Keywords

mathematics, instruction, access to the general curriculum, intellectual disability, autism, moderate disability, severe disability, concrete representations, manipulatives, anchored instruction, math stories, in vivo, systematic instruction, technology

The Individuals With Disabilities Education Act (IDEA; 2004) requires that all students with disabilities participate and progress in general education curriculum particularly in the areas of language arts, mathematics, and science. Research over the last decade has shown that students with moderate and severe disabilities (MSD) can acquire a wide range of academic skills when they are provided with explicit and systematic instruction (McDonnell & Ryan, 2014; Spooner, Knight, Dreyer, & Smith, 2012).

theorem to solve problems using video-based mathematics stories and simultaneous prompting.

Earlier reviews focused on teaching math to students with MSD had found that the majority of studies focused on a relatively narrow range of core mathematics standards (Browder, Spooner, Algrin-Dezell, Harris, & Wakeman, 2008; Spooner et al., 2012). Browder and colleagues (2008) reviewed 68 studies teaching math skills to students with significant cognitive disabilities published from 1973 to

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DOI: 10.1177/1088357419877932
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Additional research studies that specifically support TeachTown’s evidence-based practices in Science content include:



[Systematic Review of Evidence-based Interventions in Science for Students with Autism Spectrum Disorders.](#) Barnett, Frankel, & Fisher (2018)



[Using an Early Science Curriculum to Teach Science Vocabulary and Concepts to Students with Severe Developmental Disabilities.](#) Smith, Spooner, Jiminez, & Browder (2013)



[The Additive Effects of Scripted Lessons Plus Guided Notes on Science Quiz Scores of Students With Intellectual Disability and Autism.](#) Jimenez, Lo, & Saunders (2012)



[Evaluating Evidence-Based Practice in Teaching Science Content to Students with Severe Developmental Disabilities.](#) Spooner, Knight, Browder, Jiminez, & DiBiase (2011)

These studies all point to explicit instruction with visual supports, inquiry learning combined with task analytic instruction, and time delay (for teaching science vocabulary) as effective instructional strategies for students with moderate to severe disabilities, including autism and IDD. Of note, there are fewer studies in the literature that have focused on science and social studies (relative to ELA and math), so the evidence on which methods to teach the content area subjects is less extensive. The most comprehensive review of EBPs for teaching Social Studies is included within the Cannella-Malone (2021) review, mentioned at the top of this section.

These studies all point to explicit instruction with visual supports, inquiry learning combined with task analytic instruction, and time delay (for teaching science vocabulary) as effective instructional strategies for students with moderate to severe disabilities...



EVIDENCE BASE OF KEY INTERVENTIONS

Meta-Play, TeachTown Basics, Social Skills, and Transition to Adulthood

TeachTown is proud to deliver comprehensive special education solutions for school districts. Our streamlined approach ensures teachers have *everything* they need in one integrated platform: core academics and key, supporting interventions.

Just like enCORE, each of our supporting interventions is aligned with the evidence-based practices that reflect the most current research on how to improve outcomes for students

with moderate to severe disabilities.

Meta-Play, TeachTown Basics, Social Skills, and Transition to Adulthood all incorporate multiple ABA strategies identified at the beginning of this guide.

Just like enCORE, each of our supporting interventions is aligned with the evidence-based practices that reflect the most current research on how to improve outcomes for students with moderate to severe disabilities.

Meta-Play is TeachTown’s early learning intervention appropriate for children’s ages 18 months–4 years. It is a play-based curriculum and assessment designed to foster imaginative thinking and pretend play and, in turn, age-appropriate communication and social skills. Meta-Play is a [naturalistic developmental behavioral intervention](#) and combines principles of ABA identified above and developmental sciences, such as:

- Including students as active participants in learning
- Targeting skills which *lay the foundation* for many other behavioral skills to emerge
- *Systematically increasing the complexity* of learning activities
- Learning occurs in *social interactions involving play* with people and objects



TeachTown Basics, Social Skills, and Transition to Adulthood each lean heavily on the idea of explicit instruction—or breaking down skills into smaller, achievable steps—and include components of systematic instruction such as systematic prompting with specific corrective feedback and regular assessment. Additionally, TeachTown Basics, Social Skills, Transition to Adulthood, and Meta-Play **all** include:

- Carefully sequenced, highly structured instruction to teach complex, socially significant skills in smaller, achievable steps
- Opportunities to generalize skills across settings (e.g., school, community)
- Previewing (introducing the skill that will be taught)
- Video-Modeling
 - **Transition to Adulthood** uses *point-of-view video modeling* (e.g., *first-person video modeling, to demonstrate how to do the adaptive skill from the perspective of the student doing it*)
 - **Social Skills** uses *animated video modeling*
 - **Basics** uses *third-person video modeling*
- Concept-instruction video
- Prompting, system of least prompts
- Reinforcement

Finally, TeachTown’s Research team has been studying the effectiveness of our solutions for more than a decade. Take a deep dive into the formal studies that showcase our interventions in action:

- [Check out](#) our data spotlight that provides an overview of 6+ research studies conducted on the effectiveness of TeachTown Basics.
- [Read](#) about our Transition to Adulthood studies.
- [Learn more](#) about a recent TeachTown study of the effectiveness of Meta-Play at an early learning center

LEARN MORE

As special educators, we all have the same goal in mind: providing our students with comprehensive learning opportunities that pave the way for educational and personal success.

Our award-winning adapted core curriculum solutions and supporting interventions deliver a whole child approach. We help you *measurably* improve the academic, behavioral and adaptive skills of your students—from Pre-K through the transition years. Our entire curriculum has been founded upon *what works* for students with moderate to severe disabilities.



Scan the QR code to learn how TeachTown can work in *your* district.





Leading provider of K-12 standards-based, adapted core curriculum

Our suite of special education solutions offers students with moderate to severe disabilities equitable and inclusive access to the general education curriculum and the individualized interventions that support their success. www.TeachTown.com