



Somerville Early Education (SEE)



SEE Every Child

Preschool Curriculum Guidelines



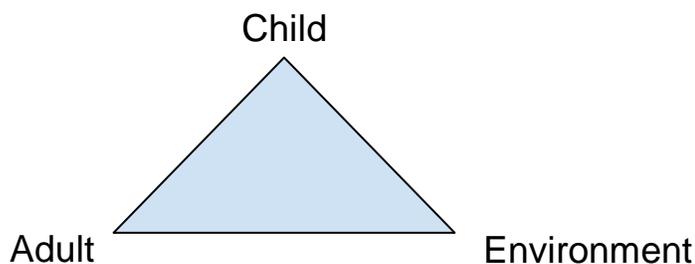


Welcome to SEE Every Child

If you are reading this, perhaps you are a teacher new to Somerville Early Education's SEE Every Child. Maybe you're interested in trying out this curriculum elsewhere, or you have been using this for a while and are reconnecting with the foundational ideas. Wherever you are from, we are glad you're here and welcome you to learn more.

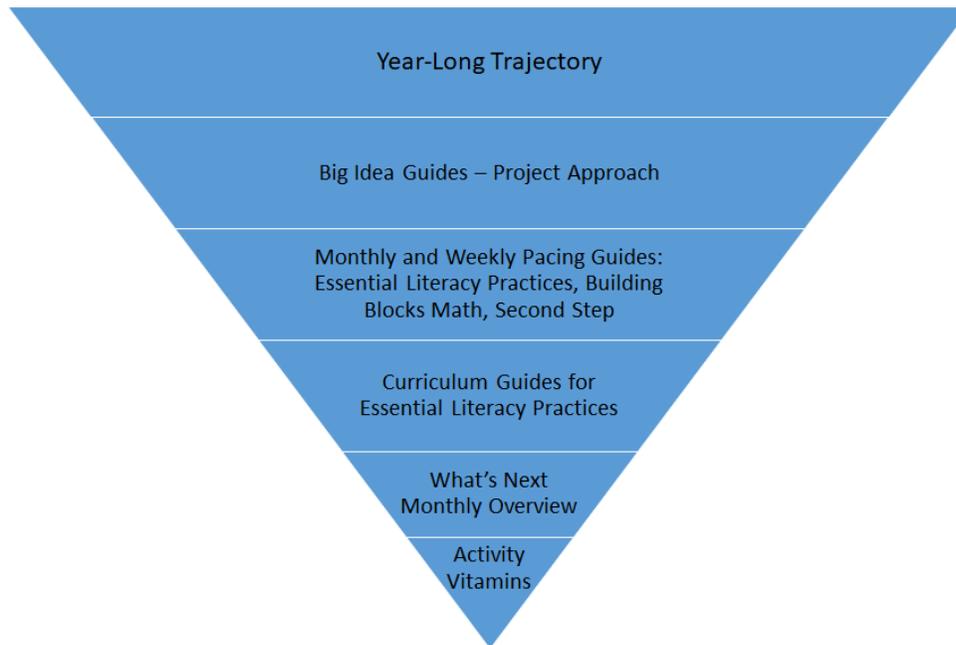
Mission: The Somerville Early Education department ensures that young children in Somerville have equitable access to a curriculum approach where they are engaged in joyful, robust, challenging, child-centered experiences grounded in play, discovery, and their own interests, and guided by state and national learning standards.

Vision: Children are born ready to learn and have the right to equitable access to a curricular approach that reflects who they are and what they are interested in. It is the job of the adults in a child's life to prepare an environment and experiences that support a child's ability to grow to their full potential. In order for children to be confident and happy learners in school and life, the adult, environment, and child work together.



This overview provides an orientation to Somerville's SEE Every Child that is grounded in the mission and vision stated above. You will learn about the goals for this curriculum, its roots in research and theories about how young children learn, and how it was developed. Each component of the curriculum will be introduced and explained, along with resources that are available to you as you teach using SEE Every Child.

There are many curriculum materials available on the SEE Every Child website that provide more information about each part of the curriculum. Here's a visual overview of all the resources available to you:



After reading this curriculum overview, you'll want to take a look at these resources:

- Year-long Curriculum Trajectory: Your reference for the scope and sequence for learning experiences across the year.
- Big Idea guides: Your resources for Project Approach studies to help you start thinking about themes and questions rooted in children's interests, relevant topics, and teacher passions & ideas.
- Monthly and Weekly Pacing Guides: Your detailed guides to Essential Literacy Practices, Building Block Math, and Second Step Social Emotional Curriculum to help you stay on track month to month, week to week
- Curriculum Guides for Essential Literacy Practices: Your resource for specific practices and activities within each literacy strategy
- What's Next monthly overviews: Your monthly bird's eye view of key instructional strategies, linked to the Curriculum and Pacing Guides, as well as Big Idea Guides
- Activity Vitamins: Targeted, highlighted suggestions and support around particular curriculum practices



Now, let's dig into the roots of SEE Every Child.

Roots of SEE Every Child

This curriculum builds on both current research and established theories about how young children learn. SEE Every Child is:

Centered on the whole child.

Extensive research shows that for young children to grow and thrive, teachers need to think of them as whole beings, and not focus only on academic skills (e.g. Belfield et al., 2006; Hirsh-Pasek et al., 2008; Yoshikawa et al., 2013). This means focusing on social and emotional development, utilizing the Second Step curriculum (*Second Step Program*, n.d.) to explicitly teach emotional awareness, skills for social interaction, and build empathy for others.

Anti-bias focused.

SEE Every Child was designed with a strong focus on anti-bias education, which is integrated throughout the year. Research shows that young children are aware of biases at surprisingly young ages (Gilliam et al., 2016; Iruka et al., 2020). Fortunately, young children are very capable of engaging in reflective dialogue and taking action to address inequities in their communities (Beneke, 2021). Anti-bias goals are integrated into each thematic project. Furthermore, all learning experiences are designed to be flexible and have multiple entry points, so that children with special needs, multilingual learners, and children developing at their own paces all have meaningful ways to engage with the curriculum.

Learning through play.

Learning through play is a core resource for children and provides rich opportunities for them to understand their world. Research and policy illustrate the importance of learning through play for young children (Hirsh-Pasek et al., 2008; Mardell et al., 2016; National Association for the Education of Young Children, 2020; Rushton et al., 2010). This is of critical importance for young multilingual learners (Baker, 2018; Lopez & Páez, 2021). SEE Every Child centers playful learning and ensures that children have extended time daily to engage in purposeful, guided play. You will also notice that the curriculum is influenced by the Montessori and Reggio Emilia approaches (Edwards, 1993; Lillard & Jessen, 2003; Project Zero & Reggio Children, 2001) with their long-standing traditions of trusting children to lead their own learning through active engagement with materials in a prepared environment, with mentoring and support from thoughtful teachers.

Thematic and interdisciplinary.

Children understand the world through active exploration, constructing knowledge as they investigate, ask questions, and interact with people and materials (Bodrova, 2007; Edson, 2013; Helm & Katz, 2010; Vygotsky & Cole, 1981, Kuh & Ponte, 2021). When children have



opportunities to explore integrated (not isolated) concepts and ideas, and complex topics that matter to them and their communities, they often surprise adults at how capable and thoughtful they can be (Bardige et al., 2018; Muhammad, 2020). That's why this curriculum is organized around thematic projects, or Big Ideas (Chard et al., 2017; Erikson Institute, n.d.; Lectio, n.d.), that offer opportunities for children to explore concepts and build skills across content areas while investigating topics that matter most to them. Through thematic projects and experiences, children build academic knowledge and deepen their expertise in multiple literacies (Chard et al., 2017; Larson, 2006).

Flexible and adaptable.

Each group of children brings their own ideas, interests, languages, and cultural backgrounds to their classroom community. SEE Every Child aims to offer learning experiences that sustain young children's cultural and linguistic funds of knowledge (Moll et al., 1992; Paris & Alim, 2017) while also providing intellectual challenge (Muhammad, 2020). SEE Every Child is designed with flexibility to be culturally responsive to the children in your class. Each month, there are several different Big Ideas to choose from, so that you can select options that work for you and your class. There are also opportunities to develop your own projects that emerge from the children's interests. While each class will take unique paths in the curriculum, cultivating unity and collaboration across our city's many vibrant ECE programs can make children's experiences stronger. Inspired by the preschools and infant-toddler centers in Reggio Emilia, Italy, SEE Every Child fosters opportunities for cross-city collaboration as teachers and children across Somerville pursue similar projects.

Responsive and co-constructed.

Somerville educators have been a part of developing this curriculum from the start, sharing their ideas and visions, generating suggestions for curriculum topics, and giving feedback on draft materials. For example, when Big Ideas were selected for the curriculum, educators across Somerville shared the projects and topics that mattered most to them, and that feedback was used as a foundation for developing the curriculum. The curriculum will continue to be adapted and changed based on feedback from teachers, so when you have new ideas to share, please post them via the feedback link on the SEE Every Child website. Maybe you have a suggestion for a new project, or want to share a learning experience that you adapted in a new way. If you are an educator beyond Somerville using SEE Every Child, you will adapt the curriculum based on the funds of knowledge of your own children, families, and educators. Let the community know what you are working on, so the curriculum can evolve and everyone benefits.

Now that we've explained the research and theory driving the SEE Every Child, let's dive in and consider what a classroom using SEE Every Child might look like.

Classroom Environments, Practices, and Routines

Intentional teaching is at the heart of powerful interactions and learning experiences. An intention is a purposeful aim, plan, or provocation that guides teachers' productive action in the classroom. In Somerville, the The Four Intentions (Kuh & Ponte, 2021) are directly related to practices that all teachers can carry out daily as they work with children and develop purposeful curriculum. The Four Intentions complement each other and when used together allow a rich curriculum to emerge.

- **Compelling Materials** - provision the classroom with interesting, well-designed materials that inspire curiosity, experimentation, adding complexity to children's learning over time.
- **Explicit Presentation** - be a supportive guide who intentionally models the use of materials and routines so that children be purposeful with them and gain independence in their behaviors, interactions, self-care routines, and content-related materials.
- **Responsive Scaffolding** - supporting moves and interactions with children including language and non-verbal scaffolds observe and listen to children to build upon and expand children's explorations.
- **Following Children's Interests** - plan provocations and experiences rooted in children's interests; develop curriculum with children that connects to their lives, communities, and fascinations; extend and enrich the exploration of Big Ideas with a focus on both child-led and teacher-inspired investigations that expand learning experiences over time.

Preparing the Classroom Environment - Teaching with Intention

The Prepared Environment (Montessori, 1988) refers to the process of intentionally designing learning spaces that are inviting and offer a range of activities from which children can choose throughout the day. The classroom environment can be referred to as a "third teacher;" (alongside parents and educators) where children see and experience the classroom as a place for learning, making choices, engaging with materials, ideas, and each other, and developing their intellect (Edwards, 1993). The prepared environment includes:

- Uncluttered, safe, beautiful spaces
- Spaces arranged for learning experiences in a range of domains.
- Well-designed compelling materials that spark curiosity and intellectual pursuits
- Materials accessible to promote independence and collaboration

For more information on preparing the classroom environment, see Carter & Curtis (2015) and Kuh & Ponte (2021).

Key Practices and Routines

While each program will have a unique schedule to fit their context, some key routines and practices across programs include:

- **Projects and Big Ideas.** One key practice in the SEE curriculum is engaging in thematic project-based learning, guided by Big Ideas. Each month, teachers choose from among

several projects, outlined in the Big Idea Guides available on the website. Since children enter the curriculum in a variety of ways, offering opportunities for children to engage in projects in ways that work for them (with a small group, one-on-one with a teacher, or as a whole class) means that there can be entry points for all children.

- **Meetings Throughout the Day.** Bringing the whole class together to start each day is a special time for gathering as a community, sharing important news and information, and preparing for your time learning together.
 - **Morning Meeting.** The Responsive Classroom (Kriete & Davis, 2014) structure is the backbone of the morning meeting routine, which includes daily greetings, sharing, games and learning activities, and shared reading of a morning message (see the Morning Meeting Guide for Teachers for detailed information). Morning meeting is also a time for:
 - **Explicit presentation**, or the practice of intentionally naming materials and actions, and demonstrating the proper care and use of a material or activity. This can be used to introduce new materials, curriculum content-specific activities, or social norms and expectations. You can find more about this Montessori-inspired practice on our SEE website.
 - **Sharing and revisiting children’s work.** Inspired by educators in Reggio Emilia, Italy, the SEE approach involves teachers thoughtfully documenting the learning process, and sharing that documentation back with children to deepen and extend their learning (Krechevsky et al., 2013; Project Zero & Reggio Children, 2001). During Morning Meeting or at another time during the day, children have opportunities to share their work with peers and get feedback.
 - **Additional whole group experiences.** Beyond Morning Meeting, the whole class gathers at one or two other times during the day for read alouds, storytelling and story acting, music and movement, brief explicit instruction in literacy, math, and social-emotional learning (see below). Many programs also include a Closing Circle for children to reflect on their learning and bring their time together to a close.
- **Choice Time.** During choice time, children pursue projects and make choices within the prepared classroom environment. Choice time is the longest and most important part of the day, and should last at least 60-90 minutes to allow for sustained play and exploration. Children choose from activities across the classroom areas, including: art, sensory play, blocks building, dramatic play, fine motor work, writing and drawing, math manipulatives, classroom library, etc. Shelves and centers set up with intentionally designed compelling materials will draw children to make choices, engage with them for longer periods of time, and revisit materials that reinforce key skills.

- **Small Group Times.** During choice time or at another time of the day that works for your program, small groups of 3-4 children gather to work on collaborative projects or focus on a particular skill or learning domain. Research groups, or stable small groups of children exploring a particular aspect of a project, may meet regularly throughout the project to engage in an extended exploration together. Documenting this process is important so that children can revisit their past work to relaunch the investigation next time. Other small groups might meet temporarily to play a learning game or focus on a particular skill (e.g. phonemic awareness, or a mathematical concept) with a teacher and peers who are working on the same developmental goal.
- **Mealtimes.** Snack and lunch are seen as learning times, and are important opportunities for children to engage in meaningful conversations, share about their lives and interests, and for teachers to learn about children's funds of knowledge.
- **Outdoor Time.** Young children thrive when they have daily opportunities to move their bodies and explore natural spaces and materials outdoors. In the SEE approach, getting outdoors and investigating the natural world is a key part of each day. Somerville has many wonderful neighborhood outdoor spaces. Whether on the playground or during a weekly outing to a local park, the Somerville Community Growing Center, or the banks of the Mystic River, spending time connecting with nature nurtures young children's physical and emotional well-being, while also providing rich opportunities for scientific exploration.
- **Time for rest.** Young children need time to recharge during the school day. Each day, children have some time to rest and relax, while laying down or sitting comfortably and listening to stories or music. A cozy area of the classroom should also be designated for children to rest at any time they need to relax, recenter, or have some space to be alone.

These routines and teaching practices are designed to be flexible. Incorporate them into your daily schedule as appropriate to the structure of your program.

Learning Opportunities in All Domains

Within the daily routines and practices outlined above, children are engaging in integrated learning across all domains - social-emotional learning, literacy, mathematics, science, artistic expression, physical development. Projects, guided by Big Ideas, connect and integrate the learning. Let's look at each learning domain and the opportunities provided in the SEE approach for children to develop in that area. With your colleagues in your program, you will make choices about when best to incorporate each curriculum component into your daily or weekly routines.

Anti-Bias Education. SEE's focus on anti-bias education is woven throughout the curriculum, integrated into each project/Big Idea in order to promote positive self-image, empathy for others



and an understanding of fairness. Anti-bias education is centered on four main goals for children (Derman-Sparks, Edwards & Goins, 2020):

- **Identity** - Children will demonstrate self-awareness, confidence, family pride, and positive social identities
- **Diversity** - Children will express comfort and joy with human diversity; use accurate language for human differences; and develop deep, caring human connections
- **Justice** - Children will increasingly recognize unfairness (injustice), have language to describe unfairness, and understand that unfairness hurts
- **Action** - Children will demonstrate empowerment and the skills to act, with others or alone, against prejudice and/or discriminatory actions

These goals are incorporated into the curriculum in a few different ways. Sometimes they emerge as a perspective within a project, such as understanding the importance of handicap accessibility within transportation; other times they become an entire project within themselves, such as a study on forms of protest when exploring the Big Idea “Civil Rights Then and Now.” Regardless of topic, children are exposed to different perspectives, identities, and ways of life within each project that occurs. By engaging in and having meaningful discussions based on these differing perspectives, children are encouraged to be confident, understanding and compassionate. In addition, children develop their ability to identify injustices and use their voice to work towards fairness for themselves and others.

Social Emotional Learning. SEE uses the *Second Step Early Learning* program (Second Step, n.d.) for the social-emotional component of the curriculum. This program consists of 5 units centered around essential social-emotional skills for young learners:

- Skills for Learning
- Empathy
- Emotion Management
- Friendship Skills and Problem Solving
- Transitioning to Kindergarten

Second Step is integral to SEE by encouraging children to explore these social emotional skills through different avenues such as storytelling, songs, games and group activities. Children participate in these skill-building activities while also learning how to create and maintain positive relationships with friends and educators. Incorporating social emotional learning in this way allows children to become better equipped for emotion regulation, problem solving, and for overall academic and social success.

Balanced Literacy

A balanced literacy approach “*requires maintaining equilibrium across the language arts domains (reading, writing, speaking, listening, and viewing), ensuring students have access to instruction in foundational skills (phonemic awareness, phonics, fluency) and meaning making (vocabulary*

and comprehension), and varying instructional delivery modes (direct, dialogic, and independent)” (Fisher et al., 2020, p.2). SEE takes a multi-faceted approach to language and literacy development. Advanced literacy instruction rooted in Big Ideas - focus on goals and objectives; calls out dose and duration; specific strategies. All grounded in Big Ideas. Our approach focuses on making distinctions between meaning and code-based skills.

The core of the SEE balanced literacy approach, developed in collaboration with expert literacy researchers in the Lectio group (Lectio, n.d.) are a set of **essential practices**, or evidence-based, necessary daily experiences for young children to develop as strong emergent readers, writers, and communicators. Below, you will learn about these essential practices, how often to incorporate them, and how they support child outcomes in literacy development. The table below outlines the essential practices, developmental domains and child outcomes addressed by each practice, and how often the practices need to be used to support children’s language and literacy learning.

Essential Practices to Child Outcomes

Essential Practices & Strategies	Domain(s)	Dosage & Duration	Outcomes Children will...
Oral Language and Concept Development <i>Foundational Morning Meeting Routines</i> <i>Read Alouds & CROWD Strategies</i> <i>Whole Group Meeting</i> <i>Small Group Interactions</i> <i>Vocabulary & Concept Development</i>	Oral Language and Vocabulary Book Knowledge	<ul style="list-style-type: none"> Daily Morning Meeting Routines Read Alouds at least 1x daily, 10-20 minutes 	Develop expressive and receptive language skills to ask questions, share ideas and concepts, use of rich vocabulary, and conventions of speech. Appreciate books and stories. Understand that pictures and words convey meaning.
Fine Motor, Drawing, and Writing <i>Fine Motor & Writing Center</i> <i>Art Studios & Sensory Opportunities</i> <i>Handwriting Without Tears</i>	Physical Development & the Mechanics of Writing Print Concepts	<ul style="list-style-type: none"> Daily access & practice via centers and shelf work (minimum 60 mins/day) 2-3x week small group with teacher 	Develop hand strength, bilateral coordination, and the ability to cross the midline. Properly hold and use a variety of mark making tools. Develop dexterity, fine motor control, grip, and coordination to draw and write with detail and accuracy.
Expressive and Written Language <i>Journaling Guide</i> <i>Story Book Acting</i> <i>Story Telling Story Acting</i> <i>Message Center</i> <i>Environmental Print</i>	Writing - Text Types and Purposes Print Concepts	<ul style="list-style-type: none"> Daily access & practice via centers and shelf work (minimum 60 mins/day) Journal: 1x week minimum STSA 1-3x week 	Use own voice, words, or illustrations to describe experiences, tell stories, and communicate information. Understand and access written symbols, print, in the environment. Generate own writing to learn about content, communicate to others, and develop an identity as an author.
Phonological and Phonemic Awareness <i>Songs & Chants</i> <i>Sounds, Symbols, Association of Sound & Symbol</i> <i>Alphachants</i> <i>Word Knowledge, Invented Spelling</i>	Phonological Awareness Phonics and Word Recognition	<ul style="list-style-type: none"> 2-4x week small group with teacher Daily Practice via meeting time Daily access & practice via centers and shelf work (minimum 60 mins/day) 	Orally discriminate and identify sounds, rhymes, syllable segmentation. Visually discriminate and identify letters & sounds. Understand that written words are made up of individual letters and sounds, sentences are made up of words.

- **Oral Language and Concept Development** is targeted during daily Morning Meeting routines and Read Alouds, and is extended during play, mealtimes, and routines throughout the day.
 - **Morning Meeting:** Morning meeting is a vital part of the day socially and emotionally, as children and teachers come together to greet each other and start their day together, and is also an integral time for cultivating language. Routines such as greetings, and morning message develop expressive and receptive language skills to ask questions, share ideas and concepts, and offer children

modeling and opportunities to use conventions of speech. See the Morning Meeting guide for more detail and examples of morning meeting routines.

- **Interactive read alouds** are conducted at least once daily, for 10-20 minutes. Books should be selected with an anti-bias lens from a range of genres (fiction, non-fiction, poetry, etc.) and provide culturally affirming and inclusive representation of diverse people and lived experiences. Read alouds may take place during a whole group time or in small groups, or both. Dialogic reading prompts using the CROWD approach (Whitehurst et al., 1988) are used to pose a range of questions that engage children’s thinking before, during, and after reading. Making and reading class books is encouraged. Whenever possible, providing and creating books in children’s home languages, and inviting family members to read books in their languages, can also make read aloud time an opportunity for cultivating and valuing bilingualism. See the Read Aloud guide for more.
- **Vocabulary and concept development** is further developed throughout the day during play, routines, and conversations. Teachers use accurate, rich vocabulary to describe objects, actions, and events during choice time and other play activities, modeling rich vocabulary use and repeating key vocabulary words introduced during read alouds as appropriate.
- **Fine Motor, Drawing, and Writing** experiences support development of hand strength, bilateral coordination, and the ability to cross the midline - skills essential for becoming a competent writer. The following strategies support children to develop a proper grip for using a variety of mark-making tools, and foster the development of dexterity, fine motor control, and coordination needed to draw and write with detail and accuracy.
 - **Handwriting** in SEE Every Child draws on the Handwriting Without Tears approach (Learning Without Tears, 2017).
 - **Fine motor development** is fostered through choice time activities, including opportunities for cutting, transferring small materials, stringing beads, tracing letters and numerals with fingers, and shape punching. The classroom **Writing Center** is also a place for children to develop fine motor skills, as they use their emergent writing and mark-making skills to create labels, small books, notes to friends and family, and other written materials of their choice. See the Fine Motor Opportunities Guide for more.
 - **Sensory and art experiences**, such as playing with playdough, clay, shaving foam and other materials also strengthen children’s fine motor skills. Integrating open-ended art opportunities for children every day during choice time invites not only fine motor development, but also support creativity, problem solving with materials, and encourages imagination.

- **Expressive and Written Language** is fostered in SEE Every Child as children use their own voices, written words, or illustrations to describe experiences, tell stories, and communicate information. The following strategies support children’s understanding of written symbols and print in the environment, and support them to generate their own writing as they learn about content, communicate to others, and develop their identities as authors.
 - **Journaling** is an ongoing practice in SEE classrooms. Providing each child with their own journal offers a recurring structure for drawing, dictating, and writing stories about themselves or stories they invent, things that happened in their lives, or ideas they want to share. See the [Journaling Guide](#) for more information.
 - **Class books** can be created based on storybooks, class walks or outings, children’s lives and interests, etc.
 - **Storytelling and Story Acting**, a practice inspired by the work of Vivian Gussin Paley (Cooper, 2011; Paley, 1997), involves children dictating stories completely of their choosing, and then acting out these stories together as a class. This practice has numerous benefits, including supporting narrative and vocabulary development, teaching concepts of print, bringing children’s funds of knowledge into the classroom, and fostering a sense of community and belonging. You can read more in the [Storytelling/Story Acting Guide](#).
 - **Environmental Print**, such as picture schedules, labels, signs, charts, and daily morning messages are all important models of print that are of interest to children and accessible to them in the classroom environment. Involve children in creating and reading these many rich sources of print that holds meaning they care about.
 - In the classroom **Message Center**, children write small messages to each other and to family and friends. A miniature post-office encourages children to send messages, and to apply their developing expertise as new writers to a motivating, authentic, and playful endeavor.

- **Phonological and Phonemic Awareness** is an essential component of early literacy. Key skills that children need to acquire in this area include: orally discriminate and identify sounds; understand and identify rhymes; segment syllables in spoken words; visually discriminate and identify letters and sounds; understand that written words are made up of individual letters and sounds, and that sentences are made up of words. All of these understandings are supported through the following strategies in the SEE Every Child [Phonological Awareness and Early Phonics Experiences guide](#).
 - **Songs and chants**, sometimes accompanied by song charts, are used daily so children hear and enjoy playing with words and sounds in words. Songs and chants, like the AlphaChants resources, engage children in playing with initial sounds, syllables, and rhymes.
 - **Learning about sounds and alphabet letter symbols** is a critical skill that is taught through word play games, songs, and manipulative materials such as

- sandpaper letters, and the I Spy game. Children learn the sounds associated with letters, letter names, eventually connecting sounds and symbols.
- **Word knowledge and invented spelling** are supported as children learn how to recognize and play with their names and the names of their peers, exploring environmental print around the classroom, manipulating song charts (e.g. by circling or substituting key words), playing with key vocabulary related to ongoing projects, and eventually using invented spelling to write messages, signs, and labels to classmates, friends and family.

Balanced Literacy Key Terms and Definitions

Key Terms and Definitions	
Essential Practices:	“Must do” practices and related curriculum materials that facilitate Core Competencies and child Outcomes
Domains:	Components of a robust language and literacy curriculum.
Dosage & Duration:	Frequency, time, and intensity of exposure. How long and how much time are we spending?
Outcomes:	Changes in children’s behaviors that indicate literacy proficiency.
Content Links & Background Knowledge	Linkages to and integration of curriculum in other content areas and in children’s lives. This promotes meaning-based literacy skills.
Core Competencies:	“Road Map”: Skills, activities necessary to facilitate child learning and development.
Whole Group:	At meeting time - introducing and reinforcing essential practices.
Small Group:	Introducing or reviewing essential practices with a few children, led by a teacher
Independent Centers & Shelf Work:	Materials and activities offered at a center or on a shelf that children can choose and do independent of a teacher.

Mathematical Thinking. The math component of SEE Every Child is based upon the *Building Blocks Pre-K* (Clements & Sarama, 2013) curriculum, with a particular emphasis on embracing mathematics as a language through which children can better understand and discuss their daily lives. Children will learn basic math skills aligning with the standards set by the EEC:

- Numbers and operations
- Geometry
- Measurement
- Patterns and algebra
- Data analysis and classification.

These skills are practiced and expanded upon through a variety of math experiences including exploration of manipulative materials, group activities emphasizing mathematical thinking, and incorporation of math concepts into Big Ideas and Projects. Math skills are also promoted through the following practices (the SEE Building Blocks pacing guide contains more information about each):

- **Whole Group** math instruction can include explicit presentation of math materials and concepts, routines, calendar, songs, movement and games. Whole Group lessons build as the week progresses, repeating particular activities based on children’s experiences, and building complexity.
- **Small Group** times targeted learning for each child according to individual development. Small Groups occur while other children are engaged in Hands On self-directed math activities (see below) or during Choice Time.
- **Hands On** are activities that children can do independently or with minimal support from an adult, in order to deepen their mathematical understandings.
- **Math Throughout the Year** are recommended routines that build on the mathematical skills highlighted each week. These routines appear throughout the year, are repeated to reinforce concepts, and can be done during transitions, as warm ups during Whole Group time, Small Group, and adapted for Hands On.
- **Key Reflection Questions** appear throughout each week and support children’s reflections on mathematical content. Strategic Key Questions have been chosen to align with the concepts and content for each week. When children talk in their own words about what they did during an activity they develop mathematical reasoning and skills such as turn taking, listening, and speaking.

Science and Engineering. SEE’s science and engineering approach is informed by the *Next Generation Science Standards* (NGSS Lead States, 2013) and is implemented through the use of Big Idea Guides and the Project Approach. The *Next Generation Science Standards* include eight key practices for engaging in science:

1. Asking questions and defining problems.
2. Developing and using models.
3. Planning and carrying out investigations.
4. Analyzing and interpreting data.
5. Using mathematics and computational thinking.
6. Constructing explanations and designing solutions.
7. Engaging in argument from evidence.
8. Obtaining, evaluating, and communicating information.

In the SEE curriculum, project topics and Big Ideas are aligned with the MA Science and Technology/Engineering standards for Pre-K, and children use the 8 NGSS practices to explore those topics in order to gain a better understanding of how the world around them works. For example, in a project centered on the role of wheels in transportation, a classroom may choose to focus on Practice 2, Developing and Using Models, by creating models of cars, busses and trains and exploring how their parts work together. Engaging in this kind of hands-on, play-based inquiry boosts curiosity and promotes scientific thinking in young learners.

Physical Development. Dedication to educating the whole child means that physical development is also incorporated into the SEE curriculum. In addition to regular time outdoors to move and explore, children develop physically through games and activities that allow for movement, as well as that make connections to Big Ideas in new ways. When studying healthy living, children may learn new exercises and create a book that teaches others how to do them, or when exploring forces and motion, children could play “Red Light, Green Light” to explore how their bodies change speed and direction. Activities such as these improve children’s gross motor skills and balance, while also boosting their confidence and encouraging them to play cooperatively with others.

Artistic Expression. Projects offer children opportunities to use many different kinds of artistic media to express themselves and their ideas. During Center Time, children may draw, paint, create models using clay or Beautiful Stuff (found and recycled materials; Weisman Topal & Gandini, 1999). Children have opportunities to build and decorate musical instruments from recycled materials, create models of vehicles using loose parts or experiment with mixing different colored paint. Making connections to Big Ideas and Projects in artistic ways such as these gives children the time to communicate ideas creatively and explore materials in new ways. In addition, SEE utilizes Storytelling and Story Acting, where children can both engage in literacy learning while also having opportunities to participate in dramatization and expressive theater arts.

Closing

SEE Every Child has been designed for and with early childhood educators in Somerville. As you use the curriculum, keep in mind the SEE mission: to ensure that young children in Somerville have equitable access to a curriculum approach where they are engaged in joyful, robust, challenging, child-centered experiences grounded in play, discovery, and their own interests, and guided by state and national learning standards.

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