

The Lynch Foundation
Early Childhood Initiative

Developing a High-Quality Early Childhood Program: A Handbook

PREFACE

The Lynch Foundation's Early Education Initiative is a comprehensive strategy to support the launch and redesign of early childhood programs across the Archdiocese of Boston Catholic Schools. This unique initiative leveraged \$3.6 million in private philanthropic investment toward the establishment of new high-quality early childhood classrooms and the redesign of existing early childhood classrooms. The philanthropic investment allowed for: 1) classroom infrastructure, including space redesign; 2) purchasing of high-quality curricula, materials, and furniture to support young learners; and 3) professional development and coaching for instructional staff and school leadership.

Until recently, enrollment in Boston's Catholic schools faced a steady decline, mirroring national trends. In the decade before the 2013-2014 school year alone, 1,856 schools across the US were reported closed or consolidated and the number of students enrolled in Catholic schools nationally declined by 23%. Peter and Carolyn Lynch have long believed that investments in early education could produce outsized returns, especially within Catholic schools. In an effort to increase Catholic school enrollment, in 2006, the Lynch Foundation saw an opportunity to provide high-quality early childhood options in Boston for a lower cost than other private providers. Yet, in order for Catholic schools to reach full enrollment and appeal to families with young children and a multitude of early childhood options, current programs needed to align with best practices in early learning. Thus began the Early Childhood Initiative, which was conceived as a strategy to both increase enrollment in Catholic schools and improve learning outcomes for young students prior to entering the K-12 system.

The Early Education Initiative began with a grant made in conjunction with the Boston Archdiocese Catholic Schools Office to a cohort of four schools focused on building new early education classrooms and improving those that were already established. The Lynch Foundation contracted three early education specialists who worked with a cohort of three schools to open additional classrooms, provide professional development and coaching to school leadership, and improve school operations. Furthermore, part of the work included supporting schools to diversify their revenue streams, so as to include vouchers in addition to tuition payments from low-income families. The team's combined talents were an ideal fit for the project: the team had experience in both public and private settings, possessed deep knowledge of early education, had worked as teachers, administrators, coaches, mentors, trainers, and grant writers, and possessed expertise in the latest federal, state, and local early education policies. In the Spring of 2011, at the request of the Lynch Foundation, the early education consultants devised a plan to support existing pre-K classrooms and establish new ones. This plan eventually became known as the Lynch Foundation Early Education Initiative.

Given these parameters, the Initiative established five goals that together would drive toward the overarching outcome of increasing Catholic schools' competitiveness in the early education market. These goals included:

- 1) To systematize and centralize the administrative burden schools face in maintaining voucher eligibility
- 2) To improve and standardize the professional development and technical assistance provided to individual classrooms
- 3) To implement a research-based early education curriculum in all classrooms

- 4) To set standards of quality assurance and quality control across classrooms
- 5) To build a self-sustaining professional community of early childhood educators across participating school

Specifically, the initiative offered:

- **Coaching:** monthly in-person visits that consultants make to individual classrooms, during which they help teachers troubleshoot challenges and set goals.
- **Materials upgrades:** including purchasing of high-quality curricula and developmentally appropriate instructional materials.
- **Professional development:** summer institute, networking events, and facilitation of professional learning community for leaders across the initiative.
- **Planning support for opening new classrooms and space redesign:** including budget planning, space design consultation, and operational support training on accessing public funds such as childcare vouchers.
- **Scholarships for teachers:** a partnership with the Aspire Institute at Wheelock College. Aspire extended an opportunity for the Early Education Initiative's teachers to receive master's degrees for \$16,970, and the foundation subsidized this cost for participating teachers who committed to a 2-year stay in their posts within the Catholic schools participating in the Lynch Foundation Early Education Initiative.

The Initiative was steadfast in its belief that systematic change occurs through deep, continued investment in people as well as systems. Rather than only making one-off investments in infrastructure and materials, the initiative committed itself to also nurturing human capital that would ensure the program's health within each school long-term. With over \$2.75 million in investments, the Early Education Initiative served 1,022 children during the 2018-2019 school year across 64 classrooms (41 new and 23 redesigned classrooms). In the long-term, investments made through The Lynch Foundation's Early Education Initiative have compelled a growing number of families to choose Catholic schools for their early-education needs.

Since implementing this strategy, the Early Education Initiative has grown to establish high-performing early childhood classrooms at 14 Catholic schools. As this work has scaled, the Initiative is closely tracking a number of key metrics, and early results are promising for students, program quality, teachers and enrollment stability and revenue.

- **Student Outcomes:** Early evidence from the Early Education Initiative is promising with 90% of students in five of the original schools demonstrating over 90% readiness for kindergarten readiness.
- **Enrollment Stability:** In the last decade, the Initiative has contributed to a 26% increase in early education enrollment in the Archdiocese of Boston. While the Initiative does not claim sole responsibility for this trend, it has established 960 new seats since its inception, rehabilitated an additional 160, and has raised Catholic schools' profile as a contender in the early childhood market. Early analyses show that participating schools are able to retain their early education populations into higher grades. The average retention rate for classrooms at participating schools remained steady during the 2017-2018 and the 2018-2019 school years, both averaging 74%.

- **Revenue:** With average tuition costs at ~\$7,600 per year (with potential for growth) the new seats added by the Initiative are generating nearly \$7.3 million in additional revenue across all the initiative schools.
- **Human Capital:** 30 educators graduated from the Wheelock College/Boston University masters programs, and another six are actively working toward their degree. With their commitment to teach for an additional two years, each of these educators is now equipped to play a leadership role in the Initiative's growing community of practice. This opportunity to further refine teachers' leadership skills will ensure the program's sustainability in future years, as teachers begin to take on the role of coaches within their own school communities.

TABLE OF CONTENTS

PREFACE 1

TABLE OF CONTENTS 4

INTRODUCTION: HOW TO USE THIS GUIDE 6

GETTING STARTED 7

Know Your Why 7

Key Questions for Knowing your Why 7

Notes from the Field 7

Notes from the Field 8

TECHNICAL ASSISTANCE GUIDE 13

Market Research and Recruitment 14

Market Research 14

Student Recruitment 15

Budget and Finance 16

Understanding the Early Childhood Financial Model 16

Sources of Revenue 17

Expenses 18

Financial Management 19

See Appendix C for more details on best practices in school finance. 20

Policies 21

Key Policies 21

Classroom Environment 23

English Language Arts: The Journey to Writing, Speaking, and Reading Starts Here 26

Math: The journey to math has already started 29

Blocks: The Journey to Math and Engineering Continues Here 32

Book Corner: Repeated Read Alouds 35

STEM: Science, Technology, Engineering and Math 37

Dramatic Play: The link between imagination and comprehension begins here while exploring social skills, creative thinking, family and cultural roles 40

Sensory Exploration: The Journey to Strong Neural Pathways Starts Here 44

Art: The Journey to Creativity Starts Here 46

Manipulatives: The journey to concept development has already started 48

Additional Classroom Equipment 50

Assessment 52

Assessment: GOLD (Teaching Strategies) 52

Publisher overview 52

Curricula 54

Curriculum: Opening the World of Learning 2005 Version (Pearson) 55

Curriculum: Building Blocks Math (McGraw-Hill) 57

Curriculum: Handwriting Without Tears 59

Supporting All Learners 61

Supporting Cognitive Development 61

Supporting Social Emotional Development 62

Notes from the Field - Implementing the Pyramid Model 63

Professional Development 65

Why is Professional Development (PD) important? 65

Estimated Professional Development Budget 65

Summer Institute Schedule 65

Coaching 66

Ongoing Professional Development 67

Leadership Team 67

Higher Education 68

REFERENCES 69

APPENDIX 72

Appendix A 72

Appendix B 78

Appendix C 80

Financial Management Practices 80

Appendix D 82

Diversity of Materials Checklist 82

Appendix E 83

Supplemental Activities to Support Play within English Language Arts 83

Appendix F 84

Appendix G 87

Student Support Team Forms 87

Appendix H 89

INTRODUCTION: HOW TO USE THIS GUIDE

This handbook is organized in two sections. In the first section, you will learn about the foundations for developing a high-quality early childhood program that fulfills a unique need in your community. In this section, you will first consider “your why” -- the reason for opening your program, the specific need you hope to meet in the community, and the vision for the educational experience your program hopes to deliver to students and families. After reflecting on “your why,” you will consider the physical space, and financial resources necessary to bring your vision to reality. Together, your why, your space, and your budget form the building blocks of a successful early childhood program.

Section two provides a more detailed technical assistance guide for program administrators. This section includes specifics for building your budget model; conducting market analyses to understand your potential customers; outfitting your space with appropriate materials, furniture, and resources; and guidance on curriculum and staff training.

The primary audience for this handbook is for early education practitioners seeking to start new early education programs, or strengthen existing programs. This may include, but is not limited to, early education center administrators, school principals who have or hope to have early education programs, or early education teachers and support staff seeking to improve their practice. In addition to the content contained within the guide, we have tried to make available sample resources for the users of the guide to adapt to their own settings.

GETTING STARTED

Welcome to your journey for building a high-quality early childhood education program. Below are the three essential questions to answer in order to start the process. If you cannot move through all three questions, you will not be able to continue. Do you know why you are building the program? Do you have the appropriate space to build a program? Do you have the budget to create it? Once you answer these questions you can begin to use this document as a guide for how to build your own high-quality program. The curricula, materials, and practices recommended here were all central to the Early Education Initiative in the Archdiocese of Boston's Catholic Schools and are grounded in research on high-quality early learning.

Know Your Why

You must have a clear vision for why you want to start an early education program. When it's time to galvanize the people on your team to take on more projects and tasks, it's this vision that will sustain you and enable you to attract the right team members. Part of the program is defining how your program is going to be unique and special in your market, compared to what preschool options are currently being offered by competitors.

Key Questions for Knowing your Why

The following questions can help you to develop your why.

1. Who are the students and families our program will serve? What are their needs when it comes to early childhood care and education?
2. What kind of program do we want to create? What will program feel like? What will it look like? What will students experience? What will adults/staff experience?
3. How will our program fulfill a unique need in our geographic area or market? How is our program different from what others are offering? Why would families choose our program?
4. What will families say when their child graduates from our program? What skills will our students have when they graduate? What next steps will they be ready for?

Notes from the Field

“Just remember when starting be slow and be steady Don't bite off more than you can chew! Also be very clear on your expectations for both parents and faculty. A clear vision is important.” - Principal

“Inform yourself, rely on the experts to provide good advice and truly listen. Take a look at the market and the competition while forming your schools vision for your program. Use the lens of a parent and or child in all decisions you make- what would I want to see in my child's school?, how would I feel if?...” - Principal

Know Your Space

An early childhood classroom environment should be warm and welcoming. Working with young children presents a unique set of standards and criteria based upon their physical and social-emotional development. It is critical to consider two key aspects of your space, before moving forward to build your program: the accessibility of the classroom location and the proximity of that classroom to bathrooms and handwashing sinks. When serving young children, these two aspects of your classroom space are critical.

- **Classroom location and accessibility:** Early childhood classrooms should be located on the first floor of the school whenever possible and as close to a building exit as possible. Classrooms should be located in a place that will limit the number of stairs that need to be used to access the classroom from the outside of the building. This access is important for safe evacuation of children in an emergency, and helps with ease of family drop off/pick up, as adults (either family members or teaching staff members) are required to walk children all the way into their classroom. All building entrances should be handicapped accessible, and hallways and any staircases that must be used are safe, free of hazards and equipped with handrails and non-slip treads.
- **Proximity to bathrooms and handwashing sinks:** The impact of plumbing locations (bathroom, sinks) cannot be overstated. Bathrooms and handwashing sinks should be located adjacent to or inside early childhood classrooms whenever possible. If children must leave the classroom to get to a bathroom, it should be located in the same hallway location as the classroom without having to go around a corner or through double doors. In the case where a bathroom is located outside of the classroom, there should be a sink in the classroom, ensuring free accessibility for handwashing and for access to water for curriculum activities, classroom clean up and water table filling.

For more information on space design for early childhood, see the *Child Care Design Guide* (Olds, 2000).

Key Questions for Knowing your Space

Beyond the two criteria mentioned above, the following questions can help you to determine if your space is truly appropriate for an early childhood program.

1. Do you have the required amount of square footage per a child (35-square feet in Massachusetts) in the classroom?
2. Do you have outdoor space with appropriately-sized equipment?
3. Can you locate early childhood classrooms together and on a lower floor?
4. Do classrooms have access to water and bathrooms?

Notes from the Field

“Inspiring, safe, beautiful spaces are critical to successful early childhood programs. Every environment sends essential messages to children and we have intentionally invested time and resources to ensure our physical spaces communicate to children: I am loved, I deserve the best education and materials, someone believes in me! Everything we do in early childhood is learning, self care, play, routines, eating, using the

bathroom. It is absolutely necessary that all of these spaces and materials are of highest quality ensuring the very best start for our youngest scholars.” -- Principal

“Something I learned very early on from my coach was defined spaces in a classroom are key, running paths are a real thing, and the space needs to tell you what to do. When you set up a classroom you need to make sure you have quiet activities with quiet, and loud with the loud or the classroom doesn’t flow. Also having clearly defined spaces is extremely important when an expectation is laid out for a child. Space can be small or large, but must be designed correctly. By design I mean draw it out, put the furniture in place, put your five year old brain on and see if the classrooms flows, and if you need to move everything again.”
–Principal

Know Your Start Up Budget

Once you have determined your why and you have obtained the necessary physical space within which to locate your program, it is essential that you have the resources necessary to support your program. Building a high-quality program, necessitates developing a deep understanding of your financial model, including your expenses (e.g., personnel, furniture, materials, curricula, operations, professional development), sources of revenue (e.g., tuition, fees, vouchers, public per pupil revenue, federal food reimbursement), and the student-to-teacher ratios which will drive your cost per a classroom. The lower your student-to-teacher ratios are, the higher your costs will be for each classroom. Each state has guidance on the required number of staff and the licensure requirements for staff (see the table below for ratios in Massachusetts). These staffing ratios will impact your cost structure. Benchmarking staffing costs will be helpful to understand how to set competitive compensation for teachers and other program staff. If you are redesigning your program or launching a new program, you need to ensure you have funds for the purchasing of high-quality furniture, materials and curricula, and funds to invest in staff training and development.

Age range	Group size	Staffing
2.9 – 4 years	12 to 14 students	1 teacher 1 paraprofessional/teaching assistant
3 – 4 years	14 to 16 students	1 teacher 1 paraprofessional/teaching assistant
4 – 5 years	16 to 18 students	1 teacher 1 paraprofessional/teaching assistant

Making these smart investments in your program, and building a sustainable financial model can help to increase revenues over time, as your program may grow its enrollment, thus bringing in additional revenue per a student.

We estimate that to redesign a single early childhood classroom you will need at least \$24,350 to invest in curriculum tools, furniture and equipment, aligned learning materials, and professional development in order to get started. This does not include the cost of personnel, ongoing professional development/coaching or the cost of any classroom renovations to equip the space for younger students.

Appendix A contains an itemized order form with the specific materials you will need to order to open a new classroom.

START-UP EXPENSES	Cost**
Curriculum	
Math Building Blocks	\$912
Opening the World of Learning	\$1,845
Handwriting Without Tears	\$443
<i>Curriculum - subtotal</i>	<i>\$3,200</i>
Assessment	
Teaching Strategies GOLD	\$350
Scholastic Kindergarten Readiness	\$2,300
<i>Assessment - subtotal</i>	<i>\$2,650</i>
Furniture	
School Specialty	\$7,000
Kaplan	\$1,150
<i>Furniture - subtotal</i>	<i>\$8,150</i>
Consumables	
Discount School Supplies	\$750
<i>Consumables - subtotal</i>	<i>\$750</i>
Instructional Materials	
Lakeshore	\$2,600
<i>Instructional Materials - subtotal</i>	<i>\$2,600</i>
Professional Development	
GOLD Assessment Training	\$1,000
Summer Institute (3 days)**	\$6,000
<i>Professional Development - subtotal</i>	<i>\$7,000</i>
Total	\$24,350

*Assumes 1 pre-school classroom, and 1 teacher

** Cost of Summer Institute would be less per a teacher if shared amongst multiple classrooms/teachers.

Key Questions for Knowing your Budget

1. Based on the recommended staff to student ratios in your state and the estimated costs for operating a new or redesigned classroom, how many students will you need to recruit to generate enough revenue to cover the cost of the classroom?
2. Have you benchmarked staff salaries and tuition rates from providers in your market to inform your financial model?
3. Do you have an estimated \$24,350 in startup funding to purchase the recommended classroom infrastructure required?
4. Are you able to invest in professional development for staff to transition them to new practices and materials?

Notes from the Field

“You need to spend money to make money. Understanding how much you have to open a classroom is key to the success of the school. You cannot just simply buy without thinking about what is needed and why.”
- Principal

“In order to make decisions about how to best prepare for, price, staff, and recruit for a program, it’s essential to know the initial start-up investment. It is also critical in demonstrating the long term sustainability of the program and overall return on investment (increase of enrollment, increased revenue, etc). As you grow your program and continue to invest, having these numbers ready to discuss with stakeholders such as donors and board members is a major benefit.” - Principal

TECHNICAL ASSISTANCE GUIDE

This Technical Assistance Guide was created explicitly to support program administrators and teachers implement improvements to their early childhood programs in a comprehensive way aligned with best practices. The Technical Assistance Guide is broken down into eight main sections: Market Research and Recruitment, Budget and Finance, Policies, Classroom Environment, Assessment, Curricula, Supporting All Learners, and Professional Development. Within the Classroom Environment section, we explore each of the nine class areas and the outdoor learning environment. The guide provides you with information about designing and implementing a high-quality instructional program, including specific recommendations about assessment, curricula, materials, furniture, space design, and professional development programs. Lastly, the guide provides insight and practical tips from teachers and administrators that we have worked with over the course of the Early Education Initiative.

Market Research and Recruitment

A robust student enrollment pipeline is essential for the livelihood of your program. Enrollment is your key revenue driver, so it is essential that you understand who your target families are, how to engage them, and how to move families to commit to your school or program over other available programs. You must actively market and recruit your program, and to do that effectively you need to understand who you are marketing to and how your program is unique from other options in the landscape. Below, we provide information about how to understand your market, and build a student recruitment and marketing strategy based on your unique value proposition and the needs of your target student population.

Market Research

Before you build a recruitment plan, you need to understand the market your program is operating within and the people that you are aiming to reach. The table below outlines the key strands of research and the data points you need to collect in each strand, and the purpose of these data points.

Market Research Strand	Key Data Points	Purpose
Demographic Research	<p><i>By Neighborhood/Census Tract:</i></p> <ul style="list-style-type: none"> ● Size of the 0-4 population, including % of population that is 0-4 ● Trend of 0-4 population -- is it growing or declining? ● Racial/ethnic breakdown of population ● Income level breakdown of population 	<ul style="list-style-type: none"> - Allows you to better understand which neighborhoods have a growing population in your target age range - Provides information about the backgrounds of your target population - Provides information about what families can afford to pay
Enrollment Trends	<ul style="list-style-type: none"> ● % of children 0-4 enrolled in early childhood programs ● % of children 0-4 enrolled in daycare ● % of children 0-4 enrolled in home care ● % of children 0-4 not enrolled in a program or daycare 	<ul style="list-style-type: none"> - Allows you to understand what choices families are making in your geographic area, and whether there is a significant population not already enrolled in any school option that you might reach
Competitor Analysis	<p><i>For each type of child care/early education provider in your target area:</i></p> <ul style="list-style-type: none"> ● Cost of the program at each age range ● Core services the program provides (program hours, food, transportation, extended care option, etc.) ● Key programmatic offerings or educational philosophy (e.g., Montessori, 	<ul style="list-style-type: none"> - Provides you with information about your competitors serving your target area so you can better distinguish your program and understand how to price your program

	<ul style="list-style-type: none"> music education, play-based learning) • Size of the program (e.g., student enrollment) • Location of the program and distance from your proposed program 	
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Student Recruitment

Once you have identified your market and your unique value proposition, you will need to develop a plan for student recruitment. You should start with identifying your target population of students and their families. By getting to know the needs and wants of these families, you will gain an understanding of how your program addresses their needs, thus positioning you well to market. Your recruitment plan must include goals for student recruitment that are based on your financial model. You will need to serve a certain number of students within each classroom in order to remain financially viable. Once you have set your recruitment goals, you should develop specific strategies designed to reach the particular families you hope to recruit. Typically, any recruitment plan will require the creation of marketing collateral about your program that can be distributed electronically or in-person. You will want to think creatively about the many ways you can connect with prospective families -- the table below provides some suggestions. At each of these engagements, you will need to consider the staff, training, and materials needed to ensure that you are able to connect with and inform families about what you have to offer.

Student Recruitment Methods
House meetings
Presentation to community groups
Posting on key parent listservs
Running open houses and school tours for prospective families
Production of digital video showcasing the program which can be circulated online
Participating in early education fairs or other community events
Online marketing through social media, Google AdWords, community message boards
Dropping informational leaflets at common places where parents gather in the community

Budget and Finance

Strong budgeting and financial practices are essential for operation of a high-quality early childhood program. School or program administrators must engage in annual budgeting where they project program costs, including any new program or capital investments and project their revenue based on enrollment and any additional funding from public or private grants. Below, we provide an overview of the key components of an early education program budget, and provide tools for program administrators to build their own budgets.

Understanding the Early Childhood Financial Model

In order to build your budget, you must first understand the underlying financial model behind any early childhood program. The amount of revenue you have increases proportionally based on your enrollment. You must determine the number of students you need to serve and the amount of tuition you need to charge to cover your operational expenses. In addition, you must consider the number of students you need to enroll in order to create a new classroom, since each classroom comes with the fixed costs of the teaching staff and the cost of classroom furniture and supplies (e.g., furniture for the nine classroom areas). For example, you would not want to have a class with only 10 students, because you will be paying more per student for the teacher and teaching assistant than if you filled the class to 14 students. In this scenario, it would be better to enroll 4 additional students at a reduced tuition, in order to reach the maximum enrollment of 14 students per a class, than to leave the seats unfilled and thus not generating any revenue to cover the classroom fixed costs.

The table below contains the recommended staffing levels and group sizes for specific classroom age ranges. These ratios should be used to build your financial model, including the number of students per classroom and per teacher.

Age range	Group size	Staffing
2.9 – 4 years	12 to 14 students	1 teacher 1 paraprofessional/teaching assistant
3 – 4 years	14 to 16 students	1 teacher 1 paraprofessional/teaching assistant
4 – 5 years	16 to 18 students	1 teacher 1 paraprofessional/teaching assistant

Your total costs as a program increase based on the number of students served and the number of classrooms you must operate. However, just as there are fixed costs for a classroom, there are also fixed administrative costs that do not depend on the number of children you enroll, so you would want to maximize your enrollment to reduce the cost per a child of your administrative/overhead costs. For example, all programs will have some administrative salaries for the operational and academic staff that oversee the teaching staff and manage program operations. The chart below demonstrates how the number of students can impact a school's bottom line. School A is not charging enough tuition per a student, or not serving enough students

to cover the cost of salaries and benefits for its administrative staff, while School B is able to cover these costs by serving two times as many students as School A. In order to cover these administrative costs, School A would have to raise its tuition significantly or increase its total enrollment.

	School A	School B
Administrative Staff Costs (Center Director, Operations Manager, Office Assistant, Janitor)	\$250,000	\$250,000
Enrollment Tuition Revenue	20 students * \$6,500 tuition per student = \$130,000 tuition revenue	40 students * \$6,500 tuition per student = \$260,000 tuition revenue
Difference between Tuition Revenue and Administrative Staff Cost	(\$120,000)	\$10,000

Sources of Revenue

The formula below is the basic formula for determining your total program revenue.

Revenue = (# of children * tuition/fees paid per child) - (School-based financial aid * # of children receiving financial aid) + (Child Care Assistance Voucher * # of children receiving child care assistance) + (Private Grant Funding)

In any early childhood budget, the main source of revenue will be from tuition and fees. In building your budget, program administrators must ensure that the tuition rates charged cover the cost of educating the child and provide enough additional funds to cover operational and administrative costs. Setting your tuition is a key organizational decision, as it must be affordable to your target families, or you must have other ways of subsidizing the cost of tuition for families. You want to set a tuition rate that is competitive in the local area in order to attract families, but also make sure that your tuition covers the costs of your program.

In addition to tuition and fees, you may also receive revenue from Child Care Assistance programs. These may come in the form of tuition vouchers that families who meet the income qualifications receive and are able to provide to their child care or early education provider. The amount of these subsidies may vary based on the income level of the family and their capacity to pay, so there may be a gap between the dollar amount of the voucher and your tuition that you may have to make up through other fundraising.

Some program administrators may choose to allocate staff time toward fundraising to provide for tuition scholarships or fund other program investments. These funds are often raised through private philanthropy,

corporate philanthropy, or through soliciting individual donors. Grant funds can be used to launch new programs, train staff, make capital improvements, or provide financial aid to reduce the cost of tuition for families. All financial aid contributed by the school or program must be subtracted from the revenue line of the budget.

Expenses

The formula below is the basic formula for determining your program expenses.

$$\text{Expenses} = (\# \text{ of classrooms} * \text{cost per classroom}) + (\text{Operational Costs}) + (\text{Program Administration Costs})$$

Classroom-based Expenses: Most costs in an early childhood setting will increase on a per classroom basis. However, the total amount of classroom costs are made up of both fixed costs and costs that depend on the number of students.

Fixed Classroom Costs	Per Student Costs
<ul style="list-style-type: none"> ● Lead Teacher ● Teaching Assistant ● Furniture and materials for 9 Class Areas ● Teacher technology (e.g., laptops, projector) ● Teacher instructional materials (e.g., Curricula, Assessment materials) ● Teaching supplies ● Teacher Professional Development ● Books/Classroom Library 	<ul style="list-style-type: none"> ● Student technology (e.g., 1:1 device program) ● Consumables and Supplies (e.g., art supplies or other supplies that increase based on the number of students in the class) ● Instructional Materials (e.g., sets of curricular materials)

Operational Expenses: Operational expenses include costs associated with operating a facility, and business-related costs.

Operational Expenses
<ul style="list-style-type: none"> ● Rent or mortgage payments ● Maintenance ● Business taxes (if a for-profit entity) ● Licensing fees ● Accounting/Legal fees ● Office Supplies ● Marketing costs ● Insurance ● Office Technology (e.g., internet and phone service, computers for administrative use, copiers)

Administrative Expenses: Administrative expenses are those costs associated with the centralized staff that oversee the program, or provide support to the program that is shared by all of the program classrooms. Below is a sample of some of the positions which might be included as part of your administrative budget. However, not all of these positions are required, and it depends on the needs of your students and the size

of your program how many of these positions you want to have and whether they are full-time positions, part-time positions or contracted services.

Administrative Expenses
<ul style="list-style-type: none">● Program Administrator/Director● Operations Manager● Finance Manager● Nurse● Social Worker● Literacy or Math Specialists● Special Education/Early Interventionist● Janitor/Custodian

In Appendix B, you will see a sample budget for a four-classroom early childhood program. This budget includes both the start-up costs and the annual operating costs for a small early childhood program.

Your annual operating budget should be based off of a long-term or 5-year budget forecasting document that aligns with the organizational plans and priorities. This 5-year budget should show all expenses, projected future costs and investments, and all forecasted revenue. Each year an annual operating budget should be built from the 5-year budget and approved by the school leadership and board by July 1st.

In addition to the operating budget, the organization should keep a monthly cash flow document that projects revenue and anticipated expenses for each month. This document allows administrators to see whether there are any months where expenses might exceed revenue and make arrangements with financial institutions. Each month the actual cash flow and actual budget should be updated and shared with organization leadership and board.

Financial Management

Good financial practice means managing money and processes so that the budget is aligned with the school's strategic plan. Financial management is fundamental to the efficient and effective use of school funds. The effective use of school finances allows for an institution to track their dollars so that they can analyze costs and make changes to reinvest those dollars in order to see growth within their early education programs and student enrollment.

A well-functioning school is one where the following is happening:

- Money is allocated to organizational priorities
- Annual budgeting processes are part of organizational strategic planning
- Budget is in balance or on plan to become balance
- Transparent processes for budgeting and accounting, and clear financial controls
- Revenue is diversified across multiple sources (tuition, fundraising, public funding)

See Appendix C for more details on best practices in school finance.

Policies

Each school should have general, school-wide policies and procedures that cover the health, safety and academic climate of all the school's students. In addition, we recommend the following policies and procedures that reflect the specific needs of preschool children. Please note that there are many other policies and procedures necessary to provide safe and enriching programs, these are some key policies and procedures to consider.

To develop a strong policy handbook, start by looking at available national and state resources on the standards of care for young children. The National Resource Center for Health and Safety in Child Care and Early Education (NRC) annually publishes a comprehensive guide, [Caring for Our Children](#), of health and safety performance standard and guidelines for early care and education programs (NRC, 2019). In addition, child care licensing regulations of all states are maintained in a database by the [National Center on Early Childhood Quality Assurance](#) (NCECQA). This database provides links to the standards, regulations, and quality care guidelines for each state.

To help you get started, you may also download and adapt this sample policy handbook from one of the schools in our Early Childhood Project.

Key Policies

Physical Space Requirements:

- *Indoor space:* 42 square feet per child minimum. Space must be “usable” and excludes hallways, bathrooms and any space devoted to teacher desks and storage.
- *Outdoor space:* 75 square feet per child minimum (at one time). Outdoor space must be fenced and gates and next to or not less than one eighth of a mile from the school. Play equipment must be safe and appropriate to the developmental level of the children who use it.

Job Descriptions:

All staff should have education, experience and the disposition to work with young children. Job descriptions for all staff (including paraprofessionals/assistants) should include:

- Written responsibilities for the educational program (curriculum planning and implementation) of the class
- Other daily and school-wide responsibilities
- The ability to meet the varying needs of young children in a developmentally appropriate way
- Demonstrated sound judgement and emotional maturity
- For teachers, a postsecondary degree in Early Childhood Education/Child Development or related field
- For paraprofessionals/assistants college coursework in early education, child development or related field

Class Group Size/Ratios:

Each state has specific requirements around the recommended group size per staff member based on the age of the children. The younger the children, the more staff that are needed for supervision. In Massachusetts, the recommended group sizes are as follows:

- For ages 2.9 to 4 recommended group size 12-14 with a teacher and paraprofessional/assistant
- For ages 3-4 recommended group size 14-16 with a teacher and paraprofessional/assistant
- For ages 4-5 recommended group size 16-18 with a teacher and paraprofessional/assistant

Teachers and assistant teacher/paraprofessionals should be assigned to a specific group of children for the entire school day and school year.

Enrollment Policies:

Although a school may have general enrollment policies for their families, there should be specific enrollment policies for the early childhood program. These policies should include requirements that families and children visit the school, and that the school and families exchange important information before children begin school. All medical forms and contact information should be at the school before the child attends. Please see *Caring For Our Children* standard 9.4.2.1 for more information. Enrollment procedures should include at least one pre-enrollment visit for the child that lasts at least two hours.

Discipline Policy:

Although a school may have general discipline policies, understanding the special social/emotional and developmental abilities of young children require special policies for very young children. It is required that these policies reflect the latest research on practices that support positive behavior and learning expectations and rules of being in school. Understanding and using Pyramid Model practices and PD for staff is crucial to supporting children to be good citizens. Please see *Caring For Our Children* standard 9.2.1.6 and your states regulations for more information.

Suspensions/Expulsions:

Schools should not expel/suspend or otherwise limit the amount of services and learning time (including denying outdoor time, withholding food or using food as a reward/punishment) provided to a student because of challenging behavior. All staff should use Pyramid Model practices (see the Curriculum section for more detail on this model) and Positive Behavior Support plans and strategies to support children and teach new social/emotional skills.

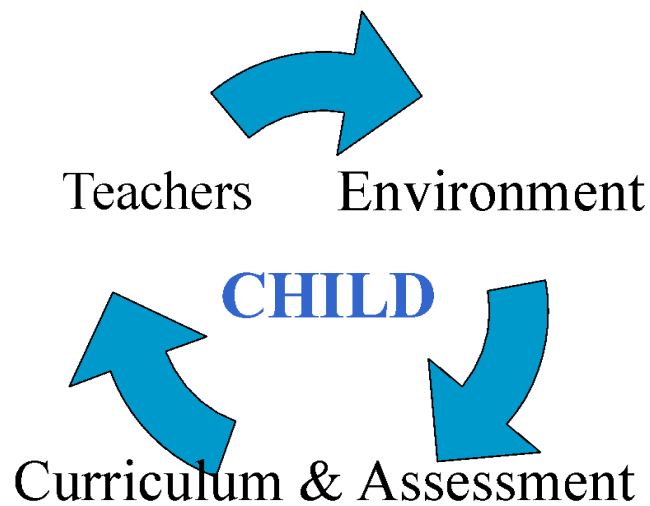
Plans for referrals to specialized services:

Any plan for referral to specialized services for children should include a plan for the collection of data and information pertinent to a decision from staff and families. Clear procedures should be written and address who/when and why specialists should be contacted. A team approach to decision-making is best and should include the child's teacher, and administrator, family members and specialists that are familiar with the child.

Toileting:

No child should be excluded from school because they are not toilet trained. A plan should be in place to move a child towards using the toilet that is developmentally appropriate and consistent with the child's physical, emotional and developmental needs. Policies should be in writing and should include input from the child's family.

Classroom Environment



There are several important factors to a child's early learning, including parents, caregivers and other children. Perhaps the factor with the largest scope is the early learning environment. The learning environment is the mix of spaces and context in which a young child learns and grows (British Columbia Ministry of Education, 2015).

Environments should be welcoming and interesting. An effective learning environment encourages learning through play with a rich set of materials and learning opportunities. An effective environment will also be responsive, containing features that involve all five senses and provoke thinking, open-ended outcomes, and creativity (British Columbia Ministry of Education, 2015).

A preschool room should have more open-space, collaborative activities and stations or areas of interest. Social interaction between children gives them access to different perspectives while playing and gives them the opportunity to learn to interact (British Columbia Ministry of Education, 2015).

So why is this all important? The answer lies in the concept of brain plasticity. The brain is a complex organ that is constantly physically changing itself. Throughout our lives, the brain rewires itself based on experiences and different environments. This is why rich environments in these early stages of development are so important. Not only are children learning new things in new environments, but their brains are also constantly applying the knowledge of past experiences to newer ones. This is why the concept of not using learning spaces that are simply background for learning, and instead creating responsive environments that generate interactive experiences, is so crucial to early learning (British Columbia Ministry of Education, 2015).

In the sections that follow, you will find a guide for setting up each of the nine class areas, as well as creating an environment that supports physical development. For each area, we explain why the area is

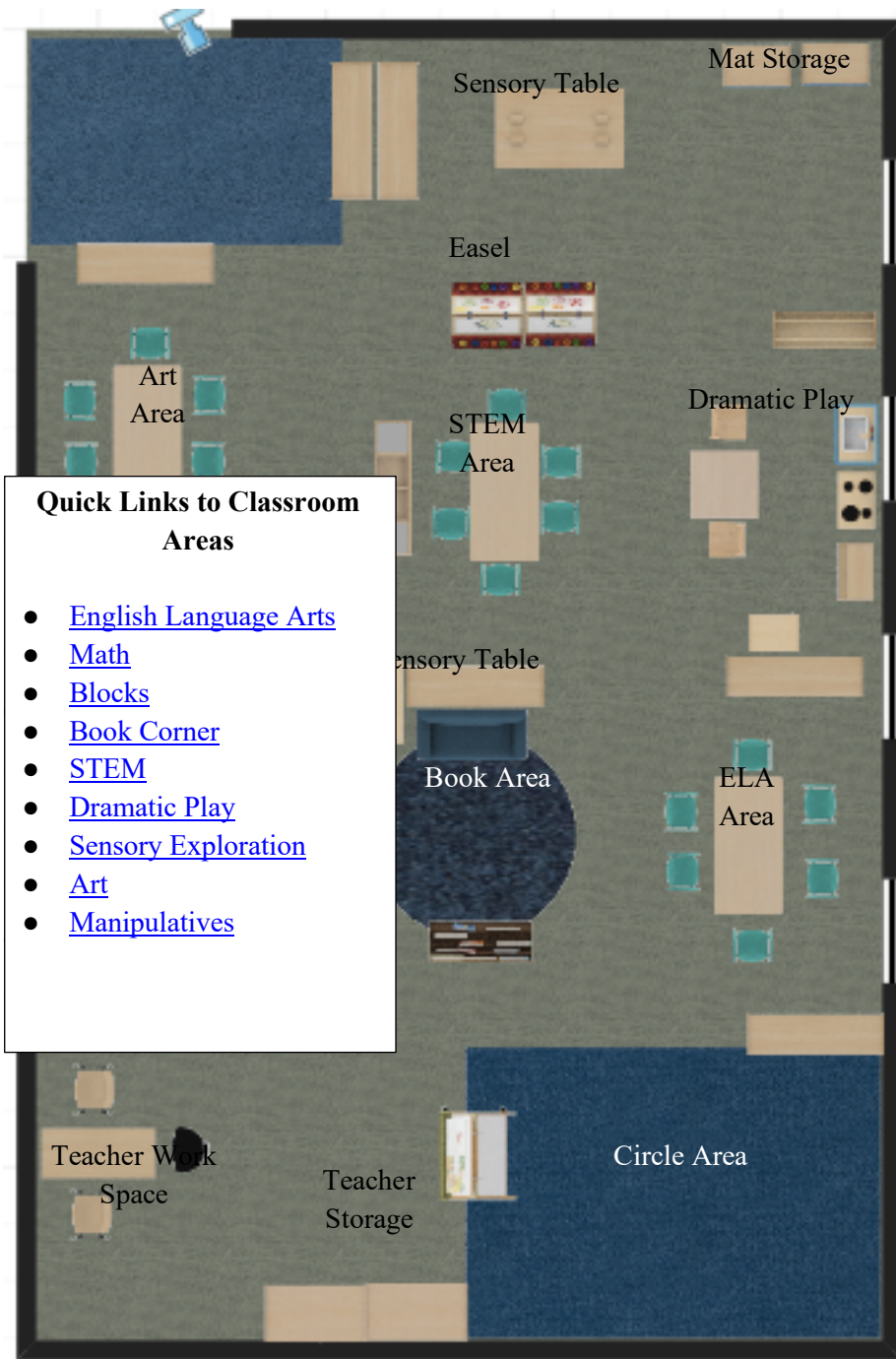
important, how it supports early learning and brain development, the resources needed to construct this area, and tips and lessons learned from other early childhood practitioners.

Classroom Layout

The image below shows the layout for a classroom, including each of the nine classroom areas that we will explore in more detail in the sections that follow. You may also use the links in the box on the right to quickly jump to the details information on a specific classroom area.

A Few Elements of Good Classroom Layouts

- Space is subdivided into areas so that children can play individually, together in small groups and in a large group, and to accommodate the variety of activities contained in the curriculum section of the standards.
- There is a private yet visible area where a child can play or work alone or with a friend.



• Space is arranged to provide clear pathways for movement from one area to another, to separate noisy activities from quieter ones and to allow visual supervision of children by staff. (Early Childhood Program Standards for Three and Four Year Olds, 2003).

Guiding Preschool Learning in English Language Arts

The foundations for learning in the English Language Arts are critical to all other curriculum areas as well as to the child's social and emotional development. Children develop the basis for verbal communication in early childhood, beginning with nonverbal social exchanges. They begin to appreciate literature and the joy of reading by being read to in family and early care/education settings. A solid foundation in language development in the years before a child enters school promotes success in reading and writing in the future. A well-planned program will encourage children to learn about the world around them. When preschoolers are read to, they are more likely to want to read and write as their imaginations are being stimulated regularly ("Guidelines for Preschool Learning Experiences," 2003).

What will students learn?

- Children need embedded opportunities across the curriculum to acquire and apply concepts of literacy. Young children are still learning to recognize letters, let alone write them correctly. Providing model letters to copy is essential in both recognition and duplication.
- This is the place where students can practice the various stages of writing, speaking, and the beginning of print awareness.
- Young children begin to learn that writing has a purpose and that print is meaningful (i.e., it communicates ideas, stories, and facts). For example, young children become aware that the red street sign says. They recognize that certain symbols, logos, and markings have specific meanings (Wu, 2009). This is the place where students can practice the various stages of writing.

A Closer Look





Tips for Set Up

- ELA centers should be located with a table and chairs of the correct height.
- “Children should never sit for prolonged periods in the wrong size chair with their feet dangling. A chair should comfortably fit the child and allow the child to sit in a natural, relaxed, supported way while keeping his/her feet on the floor or a stable surface to improve postural stability.” Professor Alan Hedge, Ph.D., CPE, Cornell University
- For safety and easy access, store paper and all ELA items in clear open containers on shelving. Students should be able to access all materials independently.
- Your literacy center should be located in a relatively quiet area of the classroom
- Consider locating the literacy center close to other centers that have a quieter noise level, such as the art center, or book corner.

Tips for Purchasing

Recommend:

- Bird In Hand Folder and Tray Cubby - 47 3/4 x 40 x 13 – Clear Trays
- Bird In Hand 25 Tray Cubby - 47 1/4 x 11 1/2 x 36 3/16
- Kaplan Early Learning Chairs – color Natural
 - 2 to 3.5 years of age: chair height = 10 inches
 - 3.5 to 6 years of age: chair height = 12 inches
- Nature Color Tables - 24 X 48 Rectangle Table (leg 15"-24")
 - 2 to 3.5 years of age: Table height = 18 inches
 - 3.5 to 6 years of age: Table height = 20 inches

Essential Learning Materials and Resources

Materials to Facilitate English Language Arts

- Double-Sided Magnetic Write & Wipe Board - Set of 10
- Stamp Pads
- Alphabet stampers
- Play dough
- Alphabet play dough letters
- Assorted Paper (copy paper, tracing paper, card stock, construction paper, etc.)
- Assorted writing utensils (golf pencils, markers, crayons, colored pencils dot markers and others)
- Alphabet bingo and other games
- Stickers with self-adhesive backing
- Cut-outs from magazines, signs, etc. (larger samples work best)
- Flashcards
- Stencils
- Paper punches of letters and shapes
- Staplers
- Scissors
- Glue sticks
- Tape
- Handwriting without Tears Materials

See Appendix D for additional ways to facilitate play in ELA.

Suggested Children’s Literature for the ELA Area: [Appendix F](#)

Curriculum Link:

[Opening The World Of Learning \(OWL – 2005 Version\)](#)

[Handwriting Without Tears](#)

Math: The journey to math has already started

Guiding Preschool Learning in Math

Mathematics relates to ideas and concepts about quantity and addresses logical and spatial relationships. At the preschool level, the foundations of mathematical understanding are formed out of children’s concrete experiences. Mathematical experiences should not be limited to “math time.” They can be embedded in almost all daily classroom activities, challenging teachers to be alert to opportunities for facilitating mathematical understanding. Mathematical thinking can be incorporated into block play, dramatic play, sand and water play, and outdoor play. Children can also make connections between mathematics and musical experiences or art when they explore rhythmic or visual patterns or symmetry (Guidelines for Preschool Learning Experiences, 2003).

What Will Students Learn?

Good early mathematics is broader and deeper than early practice on “school skills.” Quality mathematics is a joy, not a pressure. It emerges from children’s play, their curiosity, and their natural ability to think. Building Blocks builds on children’s love of patterns, counting and shape to develop foundational understandings and skills.

Studies show that the mathematics test-score gap is evident at every level of schooling and can be linked to students' earlier performance. For example, a mathematics performance gap was found in children as young as three years of age (Case & Griffin, 1990; Jordan, Huttenlocher, & Levine, 1992). Addressing the mathematics performance gap early on, before children start school, has therefore become a priority for preschool programs serving children from low-income backgrounds (Clements, 2004).

Children need embedded opportunities across the curriculum to acquire and apply concepts of math.

A Closer Look



Tips for Set Up

- Math centers should be located with a table and chairs of the correct height.
- For safety and easy access, store paper and all math items in clear open containers on shelving. Students should be able to access all materials independently.
- Your math center should be located in a relatively quiet area of the classroom
- Consider locating the literacy center close to other centers that have a quieter noise level, such as the art center, or book corner.

Tips for Purchasing

Recommend:

- Bird In Hand 25 Tray Cubby - 47 1/4 x 11 1/2 x 36 3/16
- Kaplan Early Learning Chairs – color Natural
 - 2 to 3.5 years of age: chair height = 10 inches
 - 3.5 to 6 years of age: chair height = 12 inches
- Nature Color Tables - 24 X 48 Rectangle Table (leg 15"-24")
 - 2 to 3.5 years of age: Table height = 18 inches
 - 3.5 to 6 years of age: Table height = 20 inches

Essential Learning Materials and Resources

Counting	Written Numbers	Measuring	Comparing Quantities	Shape
MUST HAVES				
<ul style="list-style-type: none"> ● Mr. Mix Up Puppet ● Money ● Animal Counter ● Dino Counters ● Teddy bears counters by size ● Transportation Counters ● Red Dice 0-five ● Blue Dice (five Ten) ● Dice with dots ● Red & White counters 	<ul style="list-style-type: none"> ● Dot Card ● Numeral Card ● Counting Card ● Counting Board game ● Cash register ● Number books ● Number puzzles 	<ul style="list-style-type: none"> ● Balance scale ● Measuring cups ● Measuring spoons 	<ul style="list-style-type: none"> ● Unfix Cubes ● Set of one inch maple cubes with stickers ● Sequencing Beads and Laces ● Class charts / graphs 	<ul style="list-style-type: none"> ● Attribute blocks ● Pattern blocks ● Foam Shapes (blue & yellow shapes) ● 3D Shapes ● Pattern Blocks
GOOD TO HAVE				

<ul style="list-style-type: none"> • Pegboards with numbers • Printed and holes to match • Puzzles, toys, games 	<ul style="list-style-type: none"> • Clock • Magnetic numbers • Number bingo/lotto • Number lacing cards • Playing cards • Telephone 	<ul style="list-style-type: none"> • Bathroom scale • Height chart • Rulers • Tape measures • Thermometer • Yardsticks 	<ul style="list-style-type: none"> • Dominoes • Graduated cylinders • Graduated puzzles • Math links • Nested cups/dolls • Playing cards 	<ul style="list-style-type: none"> • Geoboards & pegs • Magnetic shapes • Puzzles (shape) • Shape sorting peg board
--------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------

Suggested Children’s Literature for the Math Area: [Appendix F](#)

Curriculum Link:

[Opening The World Of Learning \(OWL – 2005 Version\)](#)

[Building Blocks Math](#)

Blocks: The Journey to Math and Engineering Continues Here

Guiding Preschool Learning in Blocks

Technology/Engineering involves finding out how things are constructed and work, and thinking about what can make them work differently/better. Science tries to understand the natural world; the goal of engineering is to solve practical problems through the development of technologies. Technologies developed through engineering include the systems that provide our houses with water and heat; roads, bridges, tunnels, and the cars that we drive.

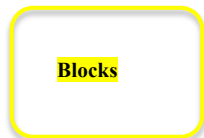
Preschool children can begin to develop concepts in engineering as they design, build, and test solutions through their play — as they construct sand castles and build cities out of blocks. They can also begin to understand that tools help people do things better or more easily, or do some things that could otherwise not be done at all (Guidelines for Preschool Learning Experiences, 2003).

What Will Children Learn?

Building with blocks provides one of the most valuable learning experiences available for young children. Block play stimulates learning in all domains of development, intellectual, physical, and social-emotional and language.

The current research shows that block play is fundamental for later cognitive success for learning math and numbers. In a research study, “Block Play Performance among Preschoolers as a Predictor of Later School Achievement in Mathematics,” published in the *Journal of Research in Early Childhood Education*, the researchers proved that children who play with blocks when they are three, four and five years of age will do better in math, especially Algebra in middle school.

A Closer Look





Tips for Set Up

- Block centers should be located in an area with low traffic to avoid any accidental knockdowns of structures.
- For safety and easy access, store blocks on low, open shelves. These shelves can then serve as protective dividers for the children's constructions.
- Install firm, smooth, low-pile carpet to provide a stable building base, to cut down on noise, and to make it more comfortable to sit on the floor.
- Block centers are usually noisy, so place it near other centers that have a loud noise level, such as the dramatic play center, nature and science center, sand and water center, or the music and movement center.

Tips for Purchasing

Recommended

- 2 Shelf Storage Unit - 47 3/4 x 13 x 30 5/8
- Block Cabinet and pattern Block Adhesives
- 6 X 9 Carpet or larger - Solid Midnight Blue color

Essential Learning Materials and Resources

Types of Blocks*	Block Accessories**	Other Materials Currently in Your Block Area***
<ul style="list-style-type: none"> ● Cardboard blocks ● Homemade blocks ● Large wooden hollow blocks ● Wood unit blocks 	<ul style="list-style-type: none"> ● Animals (e.g., zoo animals, farm animals) ● People 	<ul style="list-style-type: none"> ● Measurement tools such as rulers, tape measures and a limited amount of carpentry related dramatic play items (e.g.,

<ul style="list-style-type: none"> • Foam unit Blocks 	<ul style="list-style-type: none"> • Transportation (e.g., road signs, vehicles, trains) 	<p>hard hat, tools) are acceptable if the block area is fairly large and these materials are used to enhance block play.</p>
----------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------

* Interlocking blocks (e.g., Legos, Duplo blocks) **do NOT** count as blocks

** There are at least 3 types of accessories required in your block area (animals, people, transportation), although there can also be other types

*** There should be no interlocking blocks or other materials (e.g., Fisher Price barns, doll houses) in the block area that would detract or get in the way of children building structures with blocks.

Suggested Children’s Literature for the Block Area: [Appendix F](#)

Recommended Websites:

How to set up blocks:

<https://pocketofpreschool.com/how-to-set-up-blocks-center-in-early/>

Free Writing Blueprints:

<https://drive.google.com/file/d/0B4OtVd-h6yoYk9HX0pBckM3U0U/view>

Book Corner: Repeated Read Alouds

Guiding Preschool Learning in the Book Corner.

Rereading favorite books is not just enjoyable for children, but helpful, too. Children learn through repetition. A study on language acquisition found that children pick up new vocabulary quicker from repeated readings of the same book than when they encounter the same words in different new texts (Horst, Parsons & Bryan, 2011). This is especially helpful for English Language Learners. Multiple readings of the same book support them as they learn new words, phrases and sentence structures.

When we reread books together, our conversations around them get richer and richer. Our understanding deepens as we get to know the characters better and notice new things in the story. The focus shifts from understanding what is happening in the story to big ideas around author's message and theme. Researchers found that children's responses to questions during rereading grow in variety and complexity. They are able to make more associations, judgements and elaborative comment (Morrow, Frietag, & Gambrell, 2009).

What Will Students Learn?

- Retell a familiar book from memory or based on the illustrations.
- Arrange illustrations of key incidents from the story in order of what happened first, next.
- Make inferences about characters' motivations.
- Act out a story through flannel board, puppets, or dramatic play with props.
- Describe or represent (e.g., through drawings, constructions) what children remember

A Closer Look



Tips for Set Up

- A cozy spot set up in the classroom, with a variety of books available for the children to read.
- Your book corner should be located in a relatively quiet area of the classroom
- Consider locating the book corner close to other centers that have a quieter noise level, such as the art center, or book corner.

- Mark books that you have selected specifically to meet specific book categories (e.g., put a colored dot on front of book). When you rotate books, if you remove a book with a colored dot, make sure you replace that book with a similar book that fits the same category (e.g., race/cultural, fantasy, factual information, etc.).

Tips for Purchasing

Recommended

- Blue couch and chair
- 5-Shelf Book Stand - 36 x 29 x 12 inches – Wood
- Be sure that you have more than 25 books available within children’s reach at all times in your classroom.

Essential Learning Materials and Resources

Book Center Learning Materials

- Requires that there are at least two additional language materials available during center time
- Paper
- Pencils
- Markers
- Alphabet letters
- Phonics games
- Pocket charts with word strips
- Flannel board stories
- Picture card games
- Recorded stories and songs
- Posters and pictures (used by staff during center time)

Categories of Books

The Book Corner should have at least 3-5 books in each of the following categories: Fantasy, Factual Information, Nature/Science, Race/Culture, and Different Abilities.

Fantasy (pretend stories about people and animals)	Factual Information (books with pictures of real animals, facts about real life of animals and plants, or other real life experiences)	Nature and Science (such as how the five senses work, the human body, houses of different animals)	Different Races & Cultures (e.g., historical and contemporary stories about people from different races and cultures; books in other languages)	Different Abilities (e.g., individuals with disabilities and how they might use aids such as eyeglasses, a hearing aid, a wheelchair or crutches)	Different Ages (e.g., children, parents, grandparents)	Gender in Non-Stereotyping Roles (e.g., men and women shown doing different types of work including traditional and non-traditional roles)	Math (e.g., counting, measuring, quantity, shapes, written numbers)
--------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------

STEM: Science, Technology, Engineering and Math

Guiding Preschool Learning in Science and Technology/Engineering.

Young children are naturally curious. They wonder what things are called, how they work, and why things happen. The foundations of scientific learning lie in inquiry and exploration — these are the tools of active learning. Fostering young children’s sense of curiosity about the natural world around them can promote a lifelong interest in it. Scientific learning should not be limited to a particular “science time.”

Early childhood teachers should look for opportunities to develop children’s understanding of scientific concepts in all content areas. To do so, children need to observe things first-hand as much as possible. The younger the children, the simpler and more concrete the activities need to be. Classrooms need to have scientifically accurate books about animals and their environments such as field guides, as well as fictional stories. In all activities, teachers should make sure they use, and encourage children to use, the precise language of science (Guidelines for Preschool Learning Experiences, 2003).

What will Students Learn?

The skills and processes of inquiry and exploration are fundamental to all the sciences. At the early childhood level the processes of experimentation may require preparation of the classroom environment, routines and materials as well as attention to how children operate and utilize materials.

A Closer Look



Tips for Set Up

- Science centers should be located in an area near natural light and running water.
- STEM centers are usually noisy, so place it near other centers that have a loud noise level, such as the dramatic play center, block center, sand and water center, or the music and movement center

Tips for Purchasing

Recommended

- Childcraft Science Exploration Table, 47-3/4 W x 14-1/4 D x 24 H in
- Kaplan Early Learning Chairs – color Natural
 - *2 to 3.5 years of age*: chair height = 10 inches
 - *3.5 to 6 years of age*: chair height = 12 inches
- Nature Color Tables - 24 X 48 Rectangle Table (leg 15"-24")
 - *2 to 3.5 years of age*: Table height = 18 inches
 - *3.5 to 6 years of age*: Table height = 20 inches

Essential Learning Materials and Resources

Collections of Natural Objects	Living Things	Nature/Science Books, Games, Toys	Nature/Science Activities
<ul style="list-style-type: none"> • Birds' nests • Different types of wood • Insects • Leaves • Nuts • Pinecones • Rocks • Seashells • Seed pods • Wood 	<ul style="list-style-type: none"> • Ant farm • Aquarium with fish, snails, or other animals • Butterfly hatching kit • Class pet • Eggs that hatch • Plants • Window bird feeder • Worm farm 	<ul style="list-style-type: none"> • Books • Board games • Matching game (e.g., body parts) • Plastic animals (realistic, these can be located in other areas such as the block area) • Puzzles with nature pictures or natural sequences (e.g., caterpillar to butterfly) • Videos 	<ul style="list-style-type: none"> • Binoculars/Viewers • Color paddles • Completing a weather chart, after checking the weather outside • Cooking foods that change when mixed, cooled, cooked • Lifting objects with levers/pulleys • Magnets & magnetic / non-magnetic things • Magnifying glasses • Microscope and slides to look at • Planting seeds and/or a garden • Sensory bottles • Shaking cans with different substances to match/compare sounds • Sink/float activity • Smelling cans with different things (e.g., spices) • Tasting activity (e.g., comparing sweet, sour, bitter, salty) • Using a rain gauge

			to record how much rain fell
--	--	--	------------------------------

Suggested Children’s Literature for the STEM Area: [Appendix F](#)

Recommended Websites:

- Tinkers Kit: http://www.bostonchildrensmuseum.org/sites/default/files/pdfs/Tinker_Kit_Educators_Guide_singles_web.pdf
- Preschool STEAM: <https://preschoolsteam.com/alphabet-preschool-stem-activities/>
- STEM Sprouts Teaching Guide: <http://www.bostonchildrensmuseum.org/learning-resources/parent-educator-resources>

Dramatic Play: *The link between imagination and comprehension begins here while exploring social skills, creative thinking, family and cultural roles*

Guiding Preschool Learning in Dramatic Play

One purpose of the preschool curriculum is to help children to acquire the knowledge, skills, and attitudes needed in community life, as they learn to cooperate, share, and respect the rules of their classroom. (Guidelines for Preschool Learning Experiences, 2003).

Dramatic play, housekeeping area or pretend play is an important area in your classroom. Students are given opportunities to take on different roles and act out fake or real life situations. Students use this area to explore their own emotional feeling and ideas.

What Will Students Learn?

There are two types of dramatic play: structured and unstructured. Both types are important, unstructured time gives all students the ability to decide for themselves what roles and ideas they will choose. Structured play in this area is guided by the teacher with opportunities to act out scenarios and provide students opportunities to make choices.

A Closer Look

Dramatic Play



Tips for Set Up

- Dramatic Play can be located in almost any area of the room, since its very nature encourages students to enter or exit freely.
- The kitchen set up can then serve as protective dividers for the children’s play.
- Dramatic Play is usually noisy, so place it near other centers that have a loud noise level, such as the block center, nature and science center, sand and water center, or the music and movement center.
- In your Dramatic Play center, you need props for at least two different themes and there must be enough props to allow small groups of students to engage in meaningful play.

Tips for Purchasing

Recommended

- Preschool Kitchen Set includes Stove, Sink, Hutch and Refrigerator
- Childcraft Dress-Up Storage Unit - 47 3/4 x 16 x 42 inches - Birch
- Childcraft Storage Box with Lid 16 L x 11 W x 6 D
- ECR4Kids Hardwood Ladderback Chairs - 10 inches - Set of 2

Essential Learning Materials and Resources

Theme	Purpose	Recommended Materials/Props
Housekeeping *	These props allow children to take on the roles they are most familiar with (e.g., mommy, daddy) and to represent what they know about family life.	<ul style="list-style-type: none"> ● Child-sized furniture (stove, washer/dryer, couch, tables/chairs, etc.) ● Cooking/eating ● Dolls ● Doll clothes ● Doll furniture (bed, high chair, stroller, etc.) ● Dress-up clothes ● Mirror ● Play food (including ethnic play food) ● Play house ● Stuffed animals ● Telephone
Different Kinds of Work	These props allow children to act out what they know about different jobs / occupations.	<ul style="list-style-type: none"> ● Airplane (uniforms, tickets, trays, rows of chairs, etc.) ● Bus (uniforms, tickets, trays, rows of chairs, etc.) ● Construction (hats, shovels, tools, etc.) ● Farmer/gardener (rakes, shoves, seed packets, pumpkins, etc.) ● Firefighter (hose, uniform, buckets, helmet, boots, etc.) ● Medical (gauze bandages, doctor’s kit, dolls, etc.) ● Office play (office supplies, desk, briefcase, etc.) ● Post office (mail box, envelopes, postcards, mailbag/purse, jacket, hat, etc.) ● Restaurant (tables & chairs, menus, play money, aprons, etc.) ● Store (cash register, play food, empty food cartons, bags, pretend money, etc.) ● Train (uniforms, tickets, trays, rows of chairs, etc.)

		<ul style="list-style-type: none"> • Zookeeper/vet (stuffed or other toy animals, tickets, money, etc.)
Fantasy	These props allow children to act out make-believe stories and to pretend to be characters from books, movies or TV programs.	<ul style="list-style-type: none"> • Costumes, including hats, capes, fancy dress-ups, crown, magic wands or other accessories • Simple, non-frightening masks or face paint, non-frightening Halloween costumes • Things to act out familiar stories
Leisure	These props allow children to act out things people do during vacations, holidays, weekends or after work.	<ul style="list-style-type: none"> • Boating • Camping • Fishing • Parties (e.g., birthday party) • Picnicking • Sports • Bird-watching • Vacations to different places (e.g., beach, zoo)
Gender-Specific Dress-up	<p>These props are important because children are developing gender role identity during preschool years.</p> <p>NOTE: Clothing such as basketball jerseys, camouflage jackets, etc. do not count as male items (because males and females play sports are in the military)</p>	<p><u>Male</u></p> <ul style="list-style-type: none"> • Hats • Suit jacket • Men's shirts • Shoes • Ties • Wallet <p><u>Female</u></p> <ul style="list-style-type: none"> • Blouses • Dresses • Hats • Purses • Scarves • Shoes • Skirts
Diversity	These props help children learn that different cultures eat different foods, use different types of cooking utensils, wear different clothing, etc.	<ul style="list-style-type: none"> • Cultural cooking utensils (e.g., wok, etc.) • Dolls (different races, cultures, abilities, ages, and/or gender) • Multicultural dress-up clothes • Pretend food (e.g., taco, spaghetti, sushi, etc.) • Puppets representing different cultures
Outdoor - Dramatic Play	These props support students in engaging with the outdoor environment, and should be available to support dramatic play outside.	<ul style="list-style-type: none"> • Trucks with people or things to transport • Gardening tools with wheelbarrows • Water basins for baby dolls to bathe • Play houses with furniture, dolls or other props • Toy strollers or shopping carts with dolls or stuffed animals to transport • Prop boxes for different jobs (painter, fire fighter, bus driver, etc.)

		<ul style="list-style-type: none"> • Riding toys that look like cars with a gas station/gas pump • Big pieces of equipment shaped like vehicles, with things to transport, conductor hats, or other dress-ups
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

* The housekeeping theme is required plus one other theme (e.g., work related theme, fantasy theme, OR leisure theme).

Suggested Children’s Literature for Dramatic Play: [Appendix F](#)

Recommended Websites:

- Pocket-Of-Preschool: <https://pocketofpreschool.com/how-to-set-up-dramatic-play-center-in/>

Sensory Exploration: The Journey to Strong Neural Pathways Starts Here

Guiding Preschool Learning in Sensory Exploration.

When students are playing with sensory materials, they are growing their language development, cognitive growth, motor skills, problem solving skills, and social interaction.

A sensory activity is anything that involves the five senses (taste, touch, smell, hearing, sight) and also the vestibular or proprioception systems. Sensory activities for children can be messy, engaging, fun, and these opportunities create the stimulating neural pathways that are crucial part of children's early brain development.

What Will Students Learn?

- Conduct simple investigations, with guidance about what to look for or compare.
- Determine which objects sink or float in the water table (e.g., feather, cork, bottle, pencil, pine cone, string, nail, marbles, key, soap, eraser) and what the floaters/sinkers have in common.
- Answer “what if” type questions (e.g., what will happen if materials are mixed together?).
- Test predictions through concrete experiences to confirm or refute them (e.g., use eye droppers to mix food colors with water or use hand egg beaters in the water table).
- Discuss reasons why predictions were correct or incorrect.
- Sort objects based on their predictions (e.g., whether they will sink or float or stick to the magnet).

A Closer Look



Tips for Set Up

- The Sensory Area should be located close to a water source.
- For safety use a waterproof mat under the table.
- Store materials on low, open shelves. These shelves can then serve as protective dividers for the area.
- The Sensory Area are usually noisy, so place it near other centers that have a loud noise level, such as the dramatic play center, nature and science center, art center, or the music and movement center.
- Make sure you have enough sand and water in the table at all times to facilitate play for a small group of students

Tips for Purchasing

Recommended

- Large Sand and Water Activity Table with Shelf, White Tub and Cover, 42-3/8 x 30-1/8 x 23 inches
- Mat Sensory, Waterproof Blue 54 x 72

Essential Learning Materials and Resources

Sand/Water Toys for the Sand and Water Table

things to measure, dig, scoop, pour, fill, empty, experiment with

- Buckets
- Funnels
- Measuring cups/spoons
- Pails
- Plastic tubes
- Pipes
- Pumps to experiment with
- Rakes
- Sand molds
- Sand/water wheels
- Scoops
- Shovels
- Sifters/Sieve
- Spray bottles
- Sponge
- Things that sink/float
- Turkey baster
- Trowels
- Unbreakable Containers (e.g., plastic bowls)

Art: The Journey to Creativity Starts Here

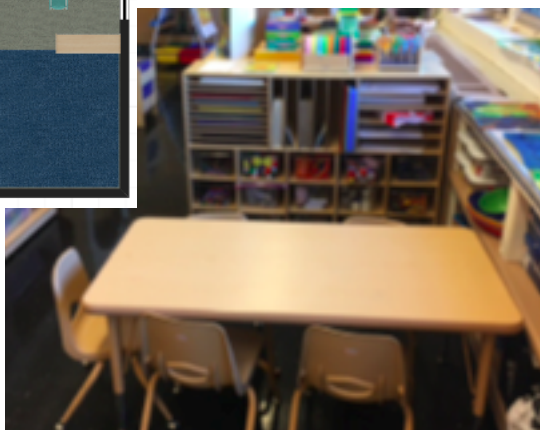
Guiding Preschool Learning in Art Exploration

The goal of arts education for young children is to develop and sustain the natural curiosity, expressiveness, and creativity that very young children often display. Arts education begins with a foundation that emphasizes exploration, experimentation, and engagement of the senses, and discussion as paths to understanding. Young children use the arts to explore sensation and their understanding of real and imagined events. They try to find out all they can about the expressive qualities inherent in different forms of communication. Through what they choose to dramatize, sing, or paint, children let others know what is important, trivial, appealing, or frightening in their lives. Depictions of faces and forms develop fairly predictably in young children. Although “realistic” products should not be the goal, preschool-age children can learn some basic techniques and begin to develop aesthetic preferences (Guidelines for Preschool Learning Experiences, 2003).

What will students learn?

When students are playing with art materials, they are experimenting with different media, fostering their creativity and imagination, collaborating, expressing their ideas, and solving problems. There is no right or wrong way to explore and create. Preschool art is focused on the experience and on exploration of techniques, tools, exposure to a variety of materials, and time to complete work.

A Closer Look



Tips for Set Up

- Art centers should be located close to a water source.
- Art center is made up of two parts, the standing easel and the art table.
- For safety and easy access, store materials and paper on low, open shelves. These shelves can then serve as protective dividers for the area.
- Art centers are usually noisy, so place it near other centers that have a loud noise level, such as the dramatic play center, nature and science center, sand and water center, or the music and movement center.

Tips for Purchasing

Recommended

- Four-Person Easel Center – with storage
- 15 Tray Multi-Storage Writing Organization
- Kaplan Early Learning Chairs – color Natural
 - *2 to 3.5 years of age*: chair height = 10 inches
 - *3.5 to 6 years of age*: chair height = 12 inches
- Nature Color Tables - 24 X 48 Rectangle Table (leg 15"-24")
 - *2 to 3.5 years of age*: Table height = 18 inches
 - *3.5 to 6 years of age*: Table height = 20 inches

Essential Learning Materials and Resources

There are five different art categories that you will want to provide children with the opportunity to engage in while they are in the art center. While, you may not offer all of these at the same time, for each of the categories you offer make sure you have provided sufficient examples of the materials for that category (i.e., having at least 3-5 of the listed materials for that category).

Drawing *	Paints	3-D**	Collage	Tools
<ul style="list-style-type: none"> ● Chalk ● Chalk boards ● Crayons ● Dry erase boards ● Markers ● Paper ● Pencils ● Pens 	<ul style="list-style-type: none"> ● Fingerpaints ● Tempera paints ● Watercolor paints 	<ul style="list-style-type: none"> ● Clay ● Modeling compound ● Pipe cleaners ● Playdough ● Wood ● Styrofoam ● “Junk” (e.g., cardboard tubes, paper boxes, packing material, etc.) 	<ul style="list-style-type: none"> ● Buttons ● Cardboard tubes ● Cotton balls ● Egg cartons ● Feathers ● Felt scraps ● Glitter ● Magazines ● Paper ● Paste ● Pom-poms ● Sequins ● Yarn/string 	<ul style="list-style-type: none"> ● BINGO/Dot markers ● Brushes ● Hole punches ● Playdough tools ● Rollers ● Ruler ● Scissors ● Sponge painters ● Stamps/stamp pad ● Stapler ● Stencils ● Tape

* Drawing is a required category that should be available at all times in the art center.

** Material only counts for 3D material if it is used to create 3D art. Gluing small 3D materials such as Styrofoam chips to a flat surface does not count as 3D work, unless the work is built up substantially, away from the base surface.

Manipulatives: The journey to concept development has already started

Guiding Preschool Learning in using Manipulatives/Fine Motor.

"Young children are not good sitters. They are hungry for stimulation. They want to see, touch, taste, sniff, handle, and use materials. They want to test things out for themselves" J. L. Hymes. Children learn best when they are encouraged to explore, interact, create, and play (Thompkins, 1991). In fact, research confirms what most early childhood professionals already know—children learn the most when they are actively participating in the learning process (Katz, 1994).

It is important to have an area for table top manipulatives, but also include them in all centers. Other classroom materials like clay, water, blocks, and other manipulatives have many possible uses. These materials are considered divergent (Isenberg and Jalongo, 1997). Open-ended or divergent materials encourage original thinking, creativity, and experimentation.

What Will Students Learn?

- How to expand upon concept development
- How to use practical implications of mathematical skills like 1:1 correspondence, sorting, grouping, and patterning
- Independent exploration with guided practice
- Building hand strength for pre-writing skills
- Collaborative problem solving and group negotiation skills

A Closer Look



Tips for Set Up

- Manipulative centers should be located with a table and chairs of the correct height.

- Students should be able to access all materials independently.
- For safety and easy access, store items in clear containers on shelving.
- Label shelves and materials
- Your manipulative center should be located in a relatively quiet area of the classroom

Tips for Purchasing

Recommended

- Bird In Hand 2 Shelf Storage Unit - 47 3/4 x 13 x 30 5/8
- Kaplan Early Learning Chairs – color Natural
 - 2 to 3.5 years of age: chair height = 10 inches
 - 3.5 to 6 years of age: chair height = 12 inches
- Nature Color Tables - 24 X 48 Rectangle Table (leg 15"-24")
 - 2 to 3.5 years of age: Table height = 18 inches
 - 3.5 to 6 years of age: Table height = 20 inches

Essential Learning Materials and Resources

Small Building Toys	Art	Manipulatives	Puzzles
<ul style="list-style-type: none"> ● Bristle blocks ● Duplos ● Legos ● Lincoln Logs ● Magnetic blocks ● Small blocks (inch cubes) ● Tinker toys 	<ul style="list-style-type: none"> ● Crayons ● Fabric scraps ● Glue sticks ● Markers ● Paints ● Paper ● Pencils ● Playdough ● Rulers ● Scissors ● Tape ● Tools (hole punches, scissors, etc.) ● Yarn 	<ul style="list-style-type: none"> ● Gears ● Lacing beads ● Lacing cards ● Links ● Mr. Potato Head ● Nuts & bolts ● Pattern blocks (parquet shapes) ● Pegs with peg boards ● Pop beads ● Snap blocks ● Train tracks ● Zip, snap, button toys/vests 	<ul style="list-style-type: none"> ● Floor puzzles ● Frame puzzles ● Knobbed puzzles with small knobs ● Knobbed puzzles with large knobs

For each of the categories of manipulatives make sure you have multiple examples of materials (at least 3 at a time).

Additional Classroom Equipment

Gross Motor Equipment

Piece of Equipment	Primary Skill Stimulated
Basketball goal (child-sized)	Throwing
Balance beam (substitute: 2x4 board)	Balancing
Balance board	Balancing
Balls	Throwing, Catching, Kicking, Rolling (depends on how children allowed to use)
Bean bags	Tossing, Catching
Bowling (substitute: 2 liter bottles with sand)	Rolling
Climber - Steps	Climbing
Climber - Rock Wall Rock Wall	Climbing
Hopscotch mat (substitute: drawn on floor using paint, tape)	Hopping
Horseshoes	Tossing
Hula hoop	Hula hooping
Jump rope	Jumping
Obstacle course	Crawling
Parachute (substitute: sheet)	Tossing
Potato sack (substitute: pillow case)	Hopping
Ring toss	Tossing
Scarves & recorded music	Dancing
Scooter Scooting	Pulling/Pushing (depends on scooter)
Slide	Slide
Spring rocker	Rocking
Steps/Bridge/Boat	Climbing/Rocking
Stilt cans (substitute: homemade stilts)	Balancing
Swing	Swinging
Traffic cones	Jump (over)
Trampoline	NOT RECOMMENDED
Tumbling mat	Somersault
Tunnel	Crawling
Wagon Push	Pull
Wheeled toys (e.g., trikes)	Pedaling, Steering

Gross motor equipment that stimulates skills on different levels.

Easiest way to achieve this is to provide different size/types of balls. Other types of equipment that stimulates skills on different levels includes:

- Different types of wheeled vehicles (e.g., with and without pedals)
- Different ways to climb onto a play structure (e.g., steps, ramps, cargo net, ladder, rock wall)
- Basketball hoops of differing heights
- Lightweight baseball bats of different sizes
- Balance beams of varying widths or heights OR different types of balancing activities (e.g., balance beam and balance boards)

Tips for Gross Motor and Outdoor Play

- 75 square feet per child minimum (at one time). Outdoor space must be fenced and gated, and not more than one eighth of a mile from the school.
- Play equipment must be safe and appropriate to the developmental level of the children who use it.
- Children should have no less than 30 minutes of outdoor play daily except in inclement weather.

Music

Music Instruments and Props	Types of Music
<ul style="list-style-type: none">● Bells● Castanets● Cymbals● Drums● Electric keyboard● Hardwood blocks with mallet● Maracas● Piano● Rainstick● Rhythm sticks● Shakers● Tambourine● Triangles● Wrist bells● Xylophones● CD/Tape Player that children can use to listen to music● Dance props (e.g., scarves)	<ul style="list-style-type: none">● Children’s songs● Classical● Country● Cultural music (from different countries)● Folk songs● Instrumental● Jazz● Lullabies● Music in different languages● Popular● Rap● Reggae● Rhythm & blues● Rock

Tips for Music:

- You will need enough musical instruments for at least half of the children to use at once plus music to listen to (e.g., tape/cd player – that children can operate themselves) and dance props (e.g., scarves)
- You should use at least 3 types of music with children, rotating your selection regularly and to align with different units of study

Diversity Materials Checklist

When purchasing materials for your classroom, you should consider the diversity of culture, race/ethnicity, religious backgrounds, ages, and genders represented in your materials. In Appendix D, we provide a sample checklist you can use to audit your classroom materials.

Assessment

Assessment: GOLD (Teaching Strategies)

It is essential that any tool used to assess the learning of young students be tied to developmental expectations, be based on objectives in all learning areas, and be researched to be a reliable and valid tool for all learners. In addition, we strongly recommend that an assessment tool rely on authentic assessment (assessment of students while they engage in activities in a familiar place, with familiar materials surrounded by familiar people). We recommend the GOLD Assessment System from Teaching Strategies, although there may be other assessments which are objective-aligned, connected to developmental benchmarks, and allow for authentic assessment.

The primary purposes of an assessment system are to help teachers to:

- Observe and document students' learning and development over time- What does the child know, and what is she/he able to do?
- Support guide and inform planning and instruction- How does this relate to important objectives for development and learning? How can the teacher scaffold learning?
- Identify students who might benefit from special help, screenings or further evaluation- how do an individual student's skills and behaviors compare to most students in his/her age group?
- Report and communicate with family members and others- How will the teacher summarize what they know about a student to others?

Publisher overview

“Teaching Strategies GOLD™ assessment system, a seamless, observation-based assessment system for children that blends ongoing, authentic assessment in all areas of development and learning with intentional, focused performance assessment tasks for selected predictors of school readiness in the areas of literacy and numeracy. Designed for use as part of meaningful, everyday experiences in the classroom or program setting. It is designed to be inclusive of children with developmental delays and disabilities, children who are English-language or dual-language learners, and children who are advanced learners.” (GOLD, 2019).

Why we use GOLD

- It was created so that teachers finally have an assessment tool that is user-friendly and inclusive of all children—one that enables teachers to increase the accuracy of their assessments while having more time to interact with children
- Selection of the specific 38 objectives and indicators show developmental expectations for preschool that was based on the current research and professional literature in child development and early childhood education as well as state early learning standards.
- Every strand explains the research behind the domain of learning.
- It has a focus section on the social-emotional domain, which is widely believed to be the cornerstone of learning. There is a strong connection between children's early relationships and behaviors and their later development and learning (Smith and Hart, 2002). For this reason, assessing children's social-emotional development accurately and supporting their growth and competence in this area is especially important.

What's included with the assessment

With Teaching Strategies GOLD® online, teachers can:

- Use a variety of tools to gather and organize meaningful data quickly.
- Create a developmental profile of each child to answer the questions, “What does this child know? What is he or she able to do?”
- Understand how their observations relate to important objectives for development and learning and use that understanding to scaffold each child’s learning.
- Determine if a child is making progress and compare the child’s knowledge, skills, and behaviors to those of most children of his or her age or class/group.
- Recognize children who might benefit from special help, screening, or further evaluation.
- Generate comprehensive reports that can be customized easily and shared with family members and other stakeholders

Notes from the Field

“GOLD focuses on the whole child, which in early childhood is key. Teachers can use this system to understand what a child need more of in the curriculum or red flags for a parent with the developing child. This system is best served for Infants-Pre-K4 because extending it into K the level of rigor in developmental milestones is lacking. Using this system as a teacher and administrator I have seen how effective it can be in communication with families about how their child is developing, giving families access to materials to use to work on area of need, and giving a picture of the whole child.” - Principal

“The GOLD online assessment system is an easily accessible place to input and hold data on all students and makes generation reports and sharing growth and progress with families easier than ever.”- Teacher

“GOLD has not only supported our teachers but our families and learning so much about our scholars. The objectives and checkpoints require assessment that is an authentic way of capturing scholar data. We have reworked our report card to solely reflect the language of GOLD for our early childhood program. Our teachers have endless amounts of evidence for family conferences and our families feel extremely informed about the progress of their child's development.” - Principal

“The GOLD online assessment system is a very thorough and detailed, yet simple assessment system. Once you learn the system, it makes it very easy to evaluate your students in different learning domains in a developmentally appropriate way. The Teacher’s Guide gives many visual examples making it easy for teachers to choose what tier is best for a student, especially when first using GOLD.” - Teacher

Curricula

Effective teaching of young students is a highly complex activity. We recommend research-based curricula that support teachers to plan intentionally, focus on activities and interactions that are developmentally appropriate and help students to connect content to their lives and experiences. Any appropriate curricula will use hands-on materials and richly connected experiences. Teachers will use strategies consistent with current research on best practices, including the use of essential questions to help students learn in all content areas. Preschool should be about hands on, developmentally appropriate play experiences, creativity and wonder. Creating these experience requires more than any single packaged curriculum provides, but rather requires teachers and program staff to build experiences and learning that students can interact with first-hand. Curriculum provides an outline and foundation from which rich learning experiences can be built.

Below, we provide snapshots of a few curricula we recommend and which we deploy in the Early Education Project. There is no single curriculum that will be sufficient for operating a high-quality early childhood program, rather teachers and program administrators must blend a variety of resources to provide a robust learning environment for students.

Curriculum: Opening the World of Learning 2005 Version (Pearson)

Why we use this curriculum

- OWL is different than other early childhood curriculums, it combines research-based practices with a hands-on approach to teaching and learning.
- The program encourages meaningful, personal relationships between teachers and students.
- OWL integrates a number of preK learning areas, including social emotional, language and communication, emergent literacy, math, science, social studies, arts, technology, and physical development.

Publisher overview

“Opening the World of Learning (OWL) is different it is research-based and field-tested, but it also allows for both teacher and student creativity. It is a comprehensive integrated, Pre-K curriculum designed to develop language and early literacy skills in the context of rich content - primarily in the areas of mathematics, science, and social studies.

OWL’s philosophy is that every moment in a pre-kindergarten classroom is an opportunity for learning. OWL (2005 version) provides six units of learning, with four weeks of instruction within each unit. We recommend pacing the units to cover five weeks, for revision and review, which would also incorporate the first few weeks specifically spend on developing the social and emotional stage for the year.” (Opening the World of Learning, 2019).

What’s included with the curriculum

- 6 Teacher's Guides (one for each of six units)
- Program Guide
- 48 Children's Books
- 100 full-color Picture Cards
- Sing-Along Songs and Poems CD
- Evaluating Language and Literacy in Four-Year-Olds: A Practical Guide for Teachers
- Math Activity Aids
- Professional Development DVD

Notes from the Field

“OWL, is an amazing literacy curriculum. My favorite part of the OWL curriculum is watching the students truly grasp the meaning of the embedded vocabulary in the books we read. Through multiple reads, the students learn the vocabulary words in the books. It is the best feeling in the world when you over hear a student using a vocabulary word from an OWL book during their play.” - Teacher

“The thematic units have been very supportive for our teaching team, scholars having multiple at bats with the same content but on a deeper level year after year has supported scholar growth as readers and how they relate to text with the repeated readings of authentic literature. The foundation has provided our teachers with incredible supplemental resources to streamline planning. This has been particularly useful when planning small groups and centers which have tied in so nicely with GOLD data collection.” - Principal

“The age appropriateness of this curriculum makes it fun and exciting for students and easy to implement for teachers. It meets the needs of all children by providing opportunities to scaffold.” - Teacher

“OWL is comprehensive and can be modified to meet the needs of all students in the classroom. The six units build on each other and students learn reading skills that are essential for ELA. The activities that go along with the stories, vocabulary students use in their daily experiences, and details they learn to pick up in stories help them to better understand ELA concepts.” - Principal

Curriculum: Building Blocks Math (McGraw-Hill)

Why we use this curriculum

Different from many other early childhood curriculums, Building Blocks offers children the opportunity to explore activities with hands-on manipulatives and real-world exploration. All young children possess an informal knowledge of mathematics; this curriculum builds upon and extends children's daily activities, interests, and questions, bringing math into the foreground. This approach ensures that mathematical content will be meaningful for young children. Through Building Blocks, students are engaged in mathematical thinking to help them learn new concepts and acquire new skills. The curriculum aligns covers key concepts such as: number and operations, geometry, measurement, patterns and algebra, data analysis, and classification.

Publisher Overview

“Building Blocks™ began as a National Science Foundation-funded project designed to enable all young children to build a solid foundation for mathematics. Now Building Blocks is the full curriculum for the Pre-K version of Real Math. It constitutes the research-based activities that help children learn math through everyday activities.

Many of us dislike math from our own experiences with math in school, it just was not fun. Building Blocks puts the fun and creativity back into math as children successfully complete activities, they are presented with the challenge of the next developmental level

In summary, Building Blocks™ PreK:

- Offers interactive, high-tech activities and low-tech, hands-on manipulatives.
- Offers real-world exploration through manipulatives, computers, books, and more.
- Engages students in mathematical thinking.
- Emphasizes conceptual thinking and reasoning to improve skill acquisition.
- Develops learning aligned with state and national standards: Number and Operations, Geometry, Measurement, Patterns and Algebra, Data Analysis and Classification.
- Incorporates assessment within play based experiences.” (Building Blocks, 2019).

What's included with the curriculum

- The Teacher's Edition provides background for teachers and complete lesson plans with explicit suggestions on how to develop math concepts
- The Teacher's Resource Guide offers key resources that help in delivering the curriculum. Units include:
 - Family Letters for each week
 - English Learner support for each week
 - Counting Cards
 - Puzzles and Patterns
 - Shape Sets

- Shape Flip Book
- Manipulatives
- Key manipulatives and props promote hands-on activity.

Notes from the Field

“We have found that Building Blocks really prepares our scholars to dive deeper into conceptual understanding of number sense and problem solving. This has benefitted scholars greatly when entering kindergarten as they are ready and able to build number bonds, subtilize and apply skills to real world problems.” - Principal

“Our math curriculum, Building Blocks, adds math into fun activities. My favorite part of the Building Blocks curriculum is getting the kids to know the songs. They love to sing along, play, make hand puppets, and all along never realize how much math they are doing.” - Teacher

Curriculum: Handwriting Without Tears

Why we use this curriculum

We use the Handwriting Without Tears curriculum primarily to lay the foundation for developing students into competent readers and writers. Handwriting Without Tears activities are designed for teachers to interact with children by asking questions, encouraging exploration and discovery, and providing hands-on experiences. Within the teaching of handwriting, students are introduced to readiness and writing, language and literacy, and number and math skills.

Publisher Overview

“The National Institute of Child Health and Human Development (2000) identified concepts children need to become competent readers and writers, including print awareness, phonological awareness, oral language, vocabulary, reading readiness and comprehension. The Get Set for School language and literacy program uses a hands-on approach to integrate these core concepts, filling the need for child-friendly and joyful literacy experiences. The program provides explicit literacy instruction, including rich vocabulary, to create multiple opportunities and avenues for preschool children to build strong language and literacy skills.

To acquire writing skills effectively, children must first know the correct way to hold a writing tool. Get Set for School follows expert recommendations (Olsen 2008, Spear-Swearling 2006), incorporating a range of activities and teaching strategies that support emerging handwriting skills:

- Drawing at an easel
- Engaging in motor skill exercises, such as Air Writing letters
- Learning pre-handwriting strokes
- Making letters with manipulatives before using writing tools
- Starting with capital letter formation
- Grouping capital letters according to similar stroke
- Using small bits of chalk or crayons before using pencils.” (“Get Set for Readiness, Language, and Math: A Pre-K Roadmap for School Success,” 2011, 5).

What’s included with the curriculum

The Handwriting Without Tears can be purchased individually, we recommend the following items.

- Readiness & Writing Pre-K Teacher’s Guide
- Get Set for School Materials (purchase 4-6 of each item, with the exception of the Sing Along CD)
 - Mat
 - Laminated cards
 - Chalk Boards
 - Sing Along CD – Get Set for School
 - Flip crayons
 - Stamp and See Screen

Notes from the Field

“Recognizing handwriting in a way that helps children develop fine motor skills and muscles has been a game changer for our scholars. Teachers have had the opportunity to engage practices that previously a child may be utilizing only in an OT setting. Having access to these strategies and resources has assisted scholars in writing while having lots of fun.” - Principal

“Handwriting without Tears is a fun and age appropriate way to introduce letters to students. I love that this curriculum provides a variety of ways to introduce letters that kids enjoy. My students always love the roll-a-dough activities where they play with dough and can improve their fine motor skills by rolling out the dough to form the letters. My students and I also love to make up new dances to the song “where do you start your letters?”. They sing and dance along about how to properly form their letters, and then are excited to explain later when we are discussing writing or making our letters.” - Teacher

“I found teaching my students with this program how to write letters was a wonderful thing. They have to learn four basic lines and were able to make every single letter. The play-doh, mat man, tracing pads, etc. made learning about letters fun and allowed for different tactile experience with making letters. It was very user friendly for families to interact with and the trainings were amazing.” - Teacher

Supporting All Learners

Supporting Cognitive Development

Schools should have Student Support teams in place to help teachers address classroom concerns and address individual needs beyond the scope of general classroom practices. Student Support teams should include but are not limited to the Principal, teachers, guidance counselors, Title I specialists, and any other related agencies with which schools have a relationship.

In addition to Student Support teams, schools should have access to professionals with expertise in Special Education and supporting students with special needs. Inclusion Specialists work directly with teachers on an as-needed basis. They should be available to observe in the classroom and help to identify and recommend reasonable supports to help a child be an active participant in the classroom.

The following process was developed to help teachers identify concerns and collaborate with Inclusion Specialist to come up with accommodations.

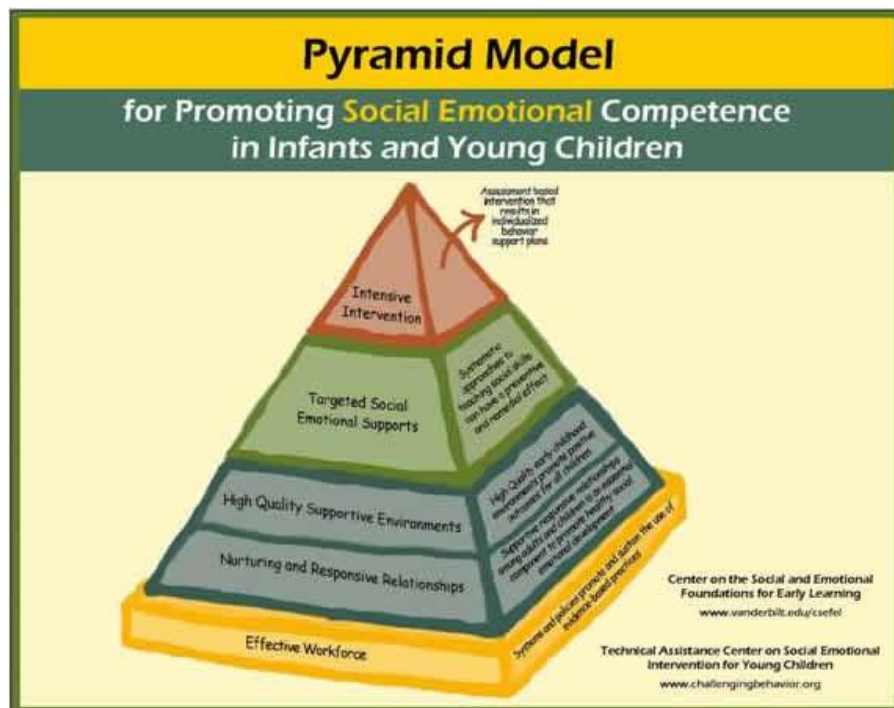
- 1) When there is a concern in your classroom, please fill out Form 1A- “Identify the Concern” (Appendix G)
- 2) Once complete, send it to your inclusion specialist with a list of best days/times to come and observe.
- 3) The inclusion specialist will review the form and be prepared to discuss next steps/recommendations.
- 4) Next steps will often include data collection. Form 1B “Observation” (Appendix G) will be discussed.
- 5) Teachers are responsible to collect data and act on recommendations of the inclusion specialist. Specific timelines and actions will be discussed on a case-by-case basis.
- 6) Inclusion specialists are responsible for sharing information with coaches and or principals as needed.

Supporting Social Emotional Development

In order to provide support for the healthy social-emotional development of all learners, we implement [Pyramid Model Practices](#) from the National Center for Pyramid Model Innovations (NCPMI). “The Pyramid Model is a conceptual framework of evidence-based practices for promoting young children’s healthy social and emotional development (NCPMI, 2019).”

There are three key features we like about the model:

- The model gives teachers, parents and other adults strategies and ideas that support all children, both with and without disabilities, to develop positive, pro-social behavior, social skills development and skills to make friends;
- The model consists of evidence-based practices and includes tools to assess the fidelity of Pyramid Model practices in the classroom; and
- The model uses Positive Behavioral Support (PBS) strategies that are based on humanistic values and research, teach children with challenging behavior new skills to replace challenging behavior and is holistic- considers all factors that impact a child, including family, community and cultural contexts.



Pyramid Model	
Pyramid Level	Pyramid Practice Overview

Level 1: Effective Workforce	Supportive and well-trained workforce that understands the importance of and is capable of implementing evidence based practices in early childhood development.
Level 2: Nurturing and Responsive Relationships	Establishment of supportive and responsive relationships between program staff and children, their families, and other providers/ caregivers.
Level 3: High Quality Supportive Environments	High quality environments that support young children to learn and grow, including safe and predictable uses of space and time, and routines to create secure and enriching learning environments for children.
Level 4: Targeted Social Emotional Supports	Systematic approaches to teaching social skills, which support students to manage and talk about emotions, develop friendships and solve social problems, including using strategies such as social stories, planned activities and visual supports.
Level 5: Intensive Intervention	Assessment-based intervention, where teachers provide individual supports and interventions for children with challenging behavior, which may include behavior support plans and individualized strategies designed to teach children new skills.

To implement Pyramid Model Practices in the classroom teachers are trained using the training modules developed by NCPMI. Teachers learn that social/emotional skills can be taught to children. For example, Teachers learn specific strategies that can support young children to manage their emotions and behavior, including the Tucker Turtle Method of anger management and problem-solving is explicitly which uses scripted story and problem-solving visuals and a turtle hand puppet that tucks into his shell.

For more information and to access training modules, see the [Pyramid Model Consortium website](#). For additional information about the model and the research-base behind it, see the [National Center for Pyramid Model Innovations](#) at the University of South Florida.

Notes from the Field - Implementing the Pyramid Model

"Without building a trusting relationship, knowing the why, and giving the student a sense of security, a child will not be successful. The Pyramid Model has taught me to teach to the WHOLE child, and to reach out and find out why a child is behaving or reacting the way they are, and to always remember that they are only 4 or 5 years old. Pyramid practices have completely changed the way I approach teaching." - Teacher

"The Pyramid Model has taught me that when evaluating an approach to a child's behavior, it is essential to consider the child's experience and perspective on the situation. Each behavior has a meaning behind it, and it is the teacher's job to figure out that meaning." - Teacher

“Pyramid Model social emotional practice is a great resource for teachers to help children practice their social emotional skills in and out of the classroom. What I love most are the social stories about being a friend, going to preschool, and the behaviors that children experience throughout their daily lives. Children truly relate to these stories and use them as tools to help them throughout their day.” - Teacher

Professional Development

Why is Professional Development (PD) important?

Research has shown that teacher quality is one of the most important factors in raising student achievement. For teachers to be as effective as possible, they need to continually expand their knowledge and skills to implement the best educational practices. (Mizell, 2010). Essential to any program improvement, is the investment in comprehensive professional development (PD) which supports staff to make changes to their practice and establishes a culture of continuous learning within your program. Specifically, we believe that there needs to be an empowered leadership team charged with identifying and developing PD that specifically meets needs of the teachers and staff in your program. We also find it helpful identify centers of local expertise to bring additional resources to the development of teachers. This may include working in collaboration with university partners to open affordable pathways for teachers to obtain bachelor's or master's degrees in early childhood education.

Most comprehensive PD plans will contain a plan for providing the following:

- **Summer training:** These PD days provide an opportunity to roll out and train teachers and staff on any new or priority programs that will be a focus for the upcoming year; provide an opportunity to build community amongst the staff for the year and align on big goals as a team.
- **Coaching + Practice Observations:** During the year instructional staff may receive monthly coaching on their classroom practice and classroom environments from an assigned coach. This coaching is supported by using tools for classroom observations such as the Classroom Assessment Scoring System (CLASS) or the Early Childhood Environment Rating Scale (ECERS) which provide a common language around best practice between staff and coaches.
- **Ongoing PD:** During the year the program leadership team may outline a certain number of days for “in-service” where staff can receive training on new practices, or collaborate as instructional teams around specific improvement goals.

Estimated Professional Development Budget

PD Type	Time Needed	Cost Estimate
Summer Institute	3 full days	\$6,000
Ongoing PD (School Year)	3 half days	\$2,400
Coaching	10 half day coaching visits	\$3,000 per teacher per year

Summer Institute Schedule

Day	Focus
-----	-------

1	Engage and Inspire: All teachers might meet in an off-site location for a day of networking and examples of how field trips can be used to support curriculum and frameworks. For example, teachers take part in a learning experience at the local zoo that can later be transferred to their students.
2	Supporting Social-Emotional Development: All teachers receive social-emotional curriculum, Pyramid Model Practices. Beyond the initial introduction to the program, teachers receive an additional 6 hours of training on the Pyramid model. Training should be completed in the first month of school (e.g., conducting three 2-hr trainings).
3	Digging into Teaching and Learning in Early Ed: Teachers are trained in break-out sessions focusing on curriculum and instruction. These sessions range from 2-3 hour working groups focused on OWL, Building Blocks, GOLD and inclusion. The differentiation is provided to allow returning teachers an opportunity to obtain new information or ideas about the curriculum they have begun to use

Coaching

Research shows that new teachers who received intensive mentoring had a significant effect on student achievement after as little as two years (Strong, Fletcher, & Villar, 2004; Serpell & Bozeman, 1999). The Early Childhood Project supports teachers in years 1-3 with the project in order to build reflective practice and improve teaching skills. The goal of coaching is not to be evaluative but to support teachers on their journey and help them realize the best possible methods for helping children to learn and achieve curriculum and classroom goals. Coaching goals are chosen by teachers in consultation with their coach. All coaches use a practice-based coaching cycle to help teachers to reflect on and improve teaching practices. The value of coaching can be seen in the diagram below.

Transfer of Knowledge and Skills

TRAINING COMPONENTS	OUTCOMES (% of Participants who Demonstrate Knowledge, Demonstrate new Skills in a Training Setting, and Use new Skills in the Classroom)		
	Knowledge	Skill Demonstration	Use in the Classroom
Theory and Discussion	10%	5%	0%
..+Demonstration in Training	30%	20%	0%
..+Practice & Feedback in Training	60%	60%	5%
..+Coaching in Classroom	95%	95%	95%

Joyce and Showers, 2002

Image from Joyce and Showers (2002).

The practice-based coaching cycle is as follows:

1. A goal is chosen by the teacher
2. An action plan is written and includes the goal and actions needed to achieve the goal.
3. The coach observes teaching, and provides support and resources the teacher may need to achieve their stated goal. These observations occur once a month over the school year.
4. The teacher and the coach agree when the goal has been met. This cycle is repeated as goals are met and new goals are developed.

Observation instruments such as the CLASS help to guide teachers in goal development. CLASS assesses classroom quality by focusing on interactions between teachers and students in three domains: Emotional Support, Classroom Organization and Instructional Support. CLASS can be used by teachers to choose goals for improvement of practices that are then supported through once a month one-to-one coaching.

Another tool commonly used in coaching is the ECERS, which is a comprehensive assessment tool that measures both environmental provisions and the teacher-child interactions that affect the broad developmental needs of young children. ECERS domains include Cognitive, Social-Emotional, Physical, and Health and Safety. ECERS is designed for classrooms serving children 3 through 5 years of age.

Ongoing Professional Development

School programs should design PD opportunities to encourage their staff to gain experience and knowledge in their field. These PD opportunities should be responsive to the needs of staff and may not look the same for every staff member. Setting aside time during the year for instructional staff to plan together, design learning experiences for students, examine student work/data, and get feedback on their instructional practice is essential to any PD program. Additionally, the leadership team may want to bring in outside expertise to train staff on key practices/programs over the course of the year, and thus may have to allocate some time for staff to be released from their instructional responsibilities. PD should take special care to consider the needs of all learners, and not just the average child, which means considering what training staff might need specifically to serve children with disabilities, children with language needs, or children with complex behavioral challenges.

Finding time for staff to meet can be challenging. We recommend thinking creatively about how to find this time, including using rest and nap time or providing stipends to teachers during before or after-school hours to engage in additional training.

Leadership Team

To support program improvement across a network of schools, or a network of classrooms, we believe it is essential that a leadership team consisting of teachers from each school/program is empowered to make key decisions about the plan and implementation of improvement initiatives. The focus of this group is to give teachers a voice, including running focus groups among their colleagues to share concerns or areas where

support is needed. The leadership team meets monthly and shares information back to their schools as necessary.

Higher Education

Leaders engaging in program improvement may also want to consider how to build knowledge and advanced credentials in their instructional staff. Early childhood teachers may benefit from the opportunity access higher education courses to advance their degree in the field. Often, these degree programs can be cost prohibitive, so it may require raising additional revenue to support professional education opportunities and partnering with a local university to develop a more affordable pathway for teachers to pursue higher education.

-

REFERENCES

- American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. (2019). *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs* (4th ed.). Itasca, IL: American Academy of Pediatrics. <http://nrckids.org/files/CFOC4 pdf- FINAL.pdf>.
- British Columbia, Ministry of Education. (2015). "Importance of Early Learning Environments." *Play Today: BC's Early Years Blog for Educators*. <https://bcearlyyearsblog.com/2015/02/19/the-importance-of-early-learning-environments/>
- Case, R., & Griffin, S. (1990). "Child cognitive development: The role of central conceptual structures in the development of scientific and social thoughts." In C. A. Hauert (Ed.), *Advances in psychology-developmental psychology: Cognitive, perception-motor and neurological perspectives*. Amsterdam: North Holland.
- "Chair and Table Height Guidelines." (2019). Community Playthings. <http://www.communityplaythings.com/products/chairs/~~/media/Files/CPUS/Product/Product%20Info%20PDFs/TableChairHeightGuides.pdf>
- Dunlap, G., Wilson, K., Strain, P., & Lee, Janice K. (2013). *Plan Teach Reinforce for Young Children: The Early Childhood Model of Individualized Positive Behavior Support*. Brookes Publishing. Student Achievement through Staff Development (3rd ed: 2002).
- Early Childhood Advisory Council to the Massachusetts Board of Education. (2003). *Guidelines for Preschool Learning Experiences*, https://www.mass.gov/files/2017-08/20030401_preschool_early_learning_guidelines.pdf.
- GOLD. (2019). GOLD Assessment Overview. Teaching Strategies. <https://teachingstrategies.com/solutions/assess/gold/>
- Harms, T., Clifford, R. M., & Cryer, D. (2005). *Early Childhood Environment Rating Scale*. New York: Teachers College Press, ISBN 978-0-8077-4549-6.
- Horst, J. S., Parsons, K. L., & Bryan, N. M. (2011). Get the story straight: contextual repetition promotes word learning from storybooks. *Frontiers in psychology*, 2, 17. doi:10.3389/fpsyg.2011.00017
- Isenberg, J., & Jalongo, M. R. (1997). *Creative expression and play in early childhood*, (2nd. Ed.). Upper Saddle River, NJ: Merrill.
- Jordan, N. C., Huttenlocher, J., & Levine, S. C. (1992). Differential calculation abilities in young children from middle- and low-income families. *Developmental Psychology*, 28, 644–653.

Joyce, B and Showers, B. (2002). *Student Achievement Through Staff Development* (5th ed.). Association for Supervision & Curriculum Development.

Katz, Lillian. (1994). *What should young children be learning?* Child Care Information Exchange, 100.

Massachusetts Department of Education. (2003). *Early Childhood Program Standards for Three and Four Year Olds*. https://www.mass.gov/files/documents/2018/12/20/ta_earlychildprogstan.pdf.

Mizell, H. (2010). *Why Professional Development Matters*. Oxford, OH: Learning Forward. https://learningforward.org/docs/default-source/pdf/why_pd_matters_web.pdf

Morrow, L.M., Freitag, E., & Gambrell, L.B. (2009). *Using Children's Literature in Preschool to Develop Comprehension: Understanding and Enjoying Books* (2nd Ed).

National Center for Pyramid Model Innovations. (2019). Pyramid Model Overview. <https://challengingbehavior.cbcs.usf.edu/Pyramid/overview/index.html>

Olds, A. R. (2000). *Child Care Design Guide* (1st ed.). McGraw-Hill Professional.

Olsen, J. Z. (2008). *Pre-K Teacher's Guide*. Cabin John, MD: Handwriting Without Tears.

Opening the World of Learning. (2019). Curriculum Overview. <https://www.pearsonschool.com/index.cfm?locator=PSZu68&PMDbProgramId=22125>

Serpell, Z. & Bozeman, L (1999). *Beginning teacher induction: A report on beginning teacher effectiveness and retention*. Washington DC: National Partnership for Excellence and Accountability in Teaching.

Smith, P.K. & Hart, C.H. (2010). *The Wiley-Blackwell Handbook of Childhood Social Development, 2nd Edition*.

Spear-Swerling, L. (2006). Children's reading comprehension and oral reading fluency in easy text. *Reading & Writing: An Interdisciplinary Journal*, 19: 199-220.

Strong, M., Fletcher, S., & Villar, A. (2004). *An investigation of the effects of teacher experience and teacher preparedness on the performance of Latino students in California*. Santa Cruz, CA: New Teacher Center.

Thompkins, M. 1991. *Active learning: Making it happen in your program*. In N.A.A. Brickman and L.S. Taylor (Eds.), *Supporting Young Learners*, 5-13. Ypsilanti, Mich.: High/Scope Press.

Pianta, R. C., LaParo, K. M., Hamre, B. K. (2008). *Classroom Assessment Scoring System Pre-K*. Maryland: Paul H. Brookes Publishing Co., ISBN 978-1-55766-942-1.

Wu, L.Y. 2009. "Children's Graphical Representations and Emergent Writing: Evidence from Children's Drawings." *Early Child Development and Care* 179 (1): 69–79.

APPENDIX

Appendix A

Classroom Start-up Order Forms

McGraw Hill Education		
<i>Item</i>	<i>Item #</i>	<i>Amount</i>
BUILDING BLOCKS MATH		
BUILDING BLOCKS - TEACHER EDITION VOLUME 1 GRADE PRE-K	978-0-02-125485- 9	1
BUILDING BLOCKS - TEACHER EDITION VOLUME 2 GRADE PRE-K	978-0-02-127431- 4	1
BUILDING BLOCKS MANIPULATIVE PACKAGE GRADE PRE-K	978-0-07-679596- 3	1

HANDWRITING WITHOUT TEARS		
<i>Item</i>	<i>Item #</i>	<i>Amount</i>
Teachers Manual	TGRW	1
Roll a dough letters	RAD	4
Wood Pieces	WP	2
Mat for pieces	Mat	4
Laminated cards	LAM	4
Chalk Boards	SLT	4
Sing Along CD – Get Set for School	SING	1
Flip crayons	FC	1
Stamp and See Screen	SAS	4

PEARSON EDUCATION		
<i>Item</i>	<i>Item #</i>	<i>Amount</i>
OPENING THE WORLD OF LEARNING - A COMPREHENSIVE EARLY LITERACY PROGRAM 2005C	9.78157E+12	1
OPENING THE WORLD OF LEARNING -TRADE BOOKS COLLECTION 2005C	9.78157E+12	1

Itemized Order List - School Specialty

<i>Location</i>	<i>Item</i>	<i>Item#</i>	<i>Amount</i>
Entry	Childcraft 5-Section Bench Coat Locker	202818	4
Sensory	Childcraft Large Sand and Water Activity Table with Shelf, White Tub and Cover, 42-3/8 x 30-1/8 x 23 inches	296633	1
Meeting time	Mobile Teaching Flip Chart Writing Easel	202691	1
Circle	12' x 8' Endurance Carpet- Configurable Item: Midnight Blue	087000	1
Writing or Art Center	15 Tray Multi-Storage Writing Organization	#072174	1
Writing or Art Center	Bird In Hand Folder and Tray Cubby - 47 3/4 x 40 x 13 - Trays Not Included	272077	1
Math Center	Bird In Hand 25 Tray Cubby - 47 1/4 x 11 1/2 x 36 3/16	271552	1
Math	TEACHING CASH REGISTER - SET	9076819	1
Art	APRON PRIMARY ART - SCHOOL SMART	086520	1
Art	Bird In Hand Four-Person Easel Center	271543	1
Soft Area	Blue Couch	1352484	1
Soft Area	Blue Chair	1352486	1
Soft Area	Childcraft 5-Shelf Book Stand - 36 x 29 x 12 inches - Wood	071754	1
Blocks	Kindergarten Unit Blocks Set - 400 Pieces	1401500	1
Blocks	Bird In Hand 2 Shelf Storage Unit - 47 3/4 x 13 x 30 5/8	265251	1
Blocks	Childcraft Mobile Block Cabinet and pattern Block Adhesives	205881	1
Blocks	Career Figures	521456	1
Blocks	6 x 9 Endurance Carpet- Midnight Blue	086999	1
Blocks	Childcraft On the Farm Hand-Painted Play Figurine Animal Set	280939	1
Blocks	Learning Resources Jumbo Farm Animals - Up to 7 1/2 x 10 inch - Set of 7	1297070	1
Blocks	Learning Resources Jumbo Zoo Animals - Pack of 5	1367952	1
Blocks	Guidecraft Transportation Community and Roadway Essentials - Set of 34	1445441	1
Blocks	Plantoys Mini Wooden Vehicles - Set of 5	1401280	1
Blocks	Guidecraft Roadway System Block Set	1436985	1
Blocks	IRIS Pull Stack Storage Tote with Latch Top, 13 Quarts, Clear/Black, Pack of 6	1482853	1
Dramatic	Bird In Hand Birch Kitchen Set includes Stove, Sink, Hutch and Refrigerator	296120	1
Dramatic	Childcraft Dress-Up Storage Unit - 47 3/4 x 16 x 42 inches - Birch	074588	1
Dramatic Play	Childcraft Storage Box with Lid 16 L x 11 W x 6 D	276841	1
Dramatic Play	Early Childhood Resources Square Eco-Friendly Hardwood Table - 24 x 24 x 18 inches	1303036	1
Dramatic Play	ECR4Kids Hardwood Ladderback Chairs - 10 inches - Set of 2	1448208	1
Dramatic Play	School Specialty Deluxe Kitchen Utensils - Set of 71	9067739	1
Dramatic Play	Childcraft Multi Ethnic Dolls Caucasian African American Asian and Hispanic - 13 inch - Set of 8	1334796	1
Dramatic Play	Childcraft Multicultural Foods Play Set - Set of 63	074666	1
Dramatic Play	Childcraft Puppet Tree - 30 inches	079534	1

Dramatic Play	Children's Factory Ethnic Children 15" Puppets - Set of all 6	1426359	1
Science	Insect Lore Butterfly Garden Kit	314222	1
Science	Learning Resources Primary Science Mix and Measure Set - Set of 12 - Assorted Colors	1397799	1
Science	Learning Resources Primary Science Set	1329115	1
Science	Learning Resources Primary Science Jumbo Magnifiers With Stand - Set of 6	1435431	1
Puzzles	Melissa & Doug Pre-School Puzzle Set, Set of 12	1368714	1
Puzzles	Melissa & Doug Puzzle Storage Case, Natural Wood	68620	1
Puzzles	Wonder Box and Tactile Assortment Set	249987	1
Science	Energizer Max Alkaline Premium AA Battery, 2779 mAh, 1.5 V, Pack of 24	090167	1
Science	Childcraft Science Exploration Table, 47-3/4 W x 14-1/4 D x 24 H in	1464159	1
ELA	CUBE COZY READING 30" X 30" X 30"	1335356	1
ELA	Whitney Brothers Soft Blue Floor Mat for Privacy Play House Cube, Royal Blue	1290466	1
Mat	MAT SENSORY WATERPROOF BLUE 54X72	9203877	1

Itemized Order List - Lakeshore			
Location	Item	Item#	Amount
Science	Kid-Sized Flashlights - Set of 6	FS489	1
Science	Kid-Sized Safety Goggles - Set of 6	FS383	1
Science	Sink or Float Exploration Kit	TT157	1
Science	Color Paddles	LA873	1
Bins	set of 20 clear bins	lm103	3
Circle	Chair Cubes - Set of 4	TT871	1
Other	Community Workers Poster Pack	PP168	1
ELA	Double-Sided Magnetic Write & Wipe Board - Set of 10	LL628X	1
ELA	Magnetic Write & Wipe Markers with Eraser Caps - 8-Color Set	DD101	1
Manipulatives	Turn & Learn Magnetic Gears	DD939	1
Manipulatives	Fill It Up! Fine Motor Jars	HH166	1
Manipulatives	Button Sorting Center	JJ779	1
Manipulatives	Double-Sided Write & Wipe Magnetic Easel	TT379	1
Manipulatives	Magna-Tiles® - Master Set	DG547	1
Math	See-Inside Bucket Balance	BA109	1
Manipulatives	Bristle Builders® - Master Set	RR751	1
Blocks	Tub of Cars & Trucks	DC177	1
Blocks	Play-All-Around Dollhouse Furniture	DD545	1
Blocks	Play-All-Around Dollhouse	DD546	1
Blocks	Lakeshore Soft & Poseable Families - Complete Set	DD965X	1
STEM	Easy-Grip Safety Tweezers - Set of 12	EE607	1
STEM	Super-Safe Eyedroppers - Set of 36	LA575	1
OWL	Lakeshore Scissors Center	AA696	1
OWL	Nylon-Bristle Paintbrushes - 10-Color Set	LC1340X	1
OWL	Lakeshore No-Spill Paint Cups - 10-Color Set	LA820X	1
OWL	Paint & Collage Caddies - Set of 4	AB216	1
OWL	Easy-Clean Craft Trays - Set of 4	BX532	1
Math	Lakeshore Hands-On Math Trays - Complete Set	DD745X	1
OWL	Super-Safe Craft Tape Center - 1"	LM923	1
OWL	Lakeshore Washable Ink Pads Set	LL171	1

OWL	Giant Clear-View Stamps - Uppercase	EB866	1
OWL	Lakeshore Glue Stick - Dozen	TT505Z	1
OWL	Brush-Top Bottles - Set of 10	RR145	1
OWL	Squeeze Bottles - Set of 10	RR146	1
OWL	Best-Buy School Glue - Gallon	RS264	1
OWL	Pom-Poms - Class Pack	BA8150	1
OWL	Colored Feathers - Class Pack	LC658	1
OWL	Pipe Stems - 100 Pieces	BA7112	1
Dramatic Play	Lakeshore Career Costume Set	LC890X	1
Sensory	Clean Sand - 25-Lb. Box	VS318	1
Sensory	Washable Sensory Play Materials - Complete Set	PP275X	1
Puzzles	Classroom Floor Puzzles - Complete Set	FK205X	1
Math	Sequencing Numbers 1-10 Puzzles - Set of 3	LL567	1
Math	Number Sequencing Puzzles - Complete Set	LL565X	1
Sensory	Heavy-Duty Sand Tools Set	TT447	1
Sensory	Lakeshore Water Play Kit	PP439	1
Sensory	Water Whisks - Set of 3	SW430	1

Itemized Order List - Kaplan			
<i>Category</i>	<i>Item</i>	<i>Item #</i>	<i>Amount</i>
Tables	24 X 48 Rectangle Table (leg 15"-24")	16-84804 Natural	4
Chairs	Nature Color Tapered Leg Stackable 11 1/2" Chair - Natural (4 year olds)	5111-NT	20
	Nature Color Tapered Leg Stackable 9 1/2" Chair - Natural (3 Year olds)	5109-NT	20

Itemized Order List - Discount School Supplies			
<i>Category</i>	<i>Item</i>	<i>Item#</i>	<i>Amount</i>
Paper			
	Butcher block paper- white 2 rolls 1000', 36" wide	4018	1
	Card Stock 8 1/2" x 11"	WCSTOCK	1
	Chart Paper	RTB	1
	Colored & Clear Acetate Paper		
	Colored Tissue Paper		
	Primary Colors	LTIS	1
	Secondary Colors	BBLTIS	1
	Mini Tissue Squares	TINYTIS	1
	Drawing paper	9NCS	1
	Easel Paper	18NE	1
	Photocopy paper		
	Newsprint		
	Watercolor Paper 9" x 12"	MONET	1
	Watercolor Paper 12" x 18"	BIGMONET	1
	Tag Board 12" x 18" 2 packages	12WT	2
	Tag Board 9" x 12" 2 Packages	9WT	2
Construction paper			
	Red 12*18 3 packages	12CPRE	2
	Orange 12*18 3 packages	12CPOR	2
	Yellow 12*18 3 packages	12CPYE	2
	Blue 12*18 3 packages	12CPDB	2

Green 12*18 3 packages	12CPGR	2
Purple 12*18 3 packages	12CPVI	2
White 12*18 3 packages	12CPWH	2
Brown 12*18 3 packages	12CPBR	2
Black 12*18 3 packages	12CPBK	2
Red 9" x 12" 3 packages	9CPRE	2
Orange 9" x 12" 3 packages	9CPOR	2
Yellow 9" x 12" 3 packages	9CPYE	2
Blue 9" x 12" 3 packages	9CPDB	2
Green 9" x 12" 3 packages	9CPDG	2
Purple 9" x 12" 3 packages	9CPVI	2
White 9" x 12" 3 packages	9CPWH	2
Brown 9" x 12" 3 packages	9CPBR	2
Black 9" x 12" 3 packages	9CPBk	2
Film		
Laminating Film		
Mylar Film		
Paint		
Paintbrushes-watercolor	144WB	1
Washable Tempera Paint 4, 1 gallon containers of each		
Red	GWSTRE	1
Yellow	GWSTYE	1
Blue	GWSTBL	1
White	GWSTWH	1
Brown	GWSTBR	1
Black	GWSTBK	1
Watercolors	13LW	1
Watercolors	WCPAK	1
Miscellaneous Supplies		
Aluminum Foil		
Buttons	FB	1
Chalk	CNODUST	1
Clip Boards		
Cotton Balls		
Cellophane	CELLSET	1
Craft Sticks	500T	1
Craft Sticks -colored	CTD	1
Crayons		
Dowel Rods-Short		
Drinking Straws		
Envelops		
Eye Droppers	AP7209J	1
Finger Paint	CWFPS	1
Glitter	GGMU	1
Glitter - Silver	GGSI	1
Glue Sticks	PREPURP	1
Wrapping paper-shiny, reflective		
Hole Punchers		0
Ink Pads	STAMPADS	1

Markers		
Pens		
Pipe cleaners	CRAFTBOX	1
Plastic paint palettes		
Plastic Sleeves Photo size		
Textured Dough Rolling Pin	DESIGN	1
ABC Dough Cutters	ABCDC	1
Dough Scissor	DSCISSOR	1
Scissors		
Self adhesive Stickers	JOYFUL	1
Shape	SHAPEMAK	1
Shiny materials- Beads	BEAD	1
Shiny materials- Sequins	VEGAS	1
Sponges	COOLROLL	1
Stationery		
String	REXSET	1
White Glue-gallon	LCWG	1
Wiggly Eyes	WIDEYED	1

Appendix B

Sample Start-up + Operating Budget

EARLY EDUCATION CENTER BUDGET - Start up + Operations	
Major Assumptions	
Enrollment	80
Tuition and Fees per student	\$16,000
# of classrooms	4
# of Instructional Days	180
FTE - Teachers	5
FTE - Paraprofessionals	4
FTE - Inclusion Specialist	0.75
REVENUE	
Tuition & Fee Revenue	\$1,036,800
Child Care Assistance Program	0
Federal Child Care Food Program Reimbursement	\$26,770
Scholarship Aid	\$64,000
Revenue - Subtotal	\$1,127,570
EXPENSES	
Administration	
Salaries - Administrative	\$152,500
Benefits/Taxes - Administrative	\$30,500
Administration - Subtotal	\$183,000
Instructional	
Salaries - Teachers	\$268,000
Benefits/Taxes - Teachers	\$53,600
Salaries - Paraprofessionals	\$104,000
Benefits/Taxes - Paraprofessionals	\$20,800
Inclusion Specialist	\$48,750
Curriculum	\$12,800
Assessment	\$10,600
Furniture	\$32,600
Instructional Materials	\$10,400
Classroom supplies/consumables	\$4,000
Professional Development	\$20,400
Instructional - Subtotal	\$585,950
Operations	
Custodian	\$45,000
Nurse	\$10,500
Food Coordinator	\$8,580.00
Benefits/Taxes - Operational Salaries	\$16,020
Office Supplies	\$5,000
Technology	\$5,000
Recruitment and Advertising	\$2,500
Rent/Lease	\$48,000
Utilities	\$7,200

Maintenance	\$7,200
Food	\$80,640
Insurance	\$4,000
Accounting/Legal	\$5,750
License fees	\$500
Contingency	\$33,827
<i>Operations - Subtotal</i>	<i>\$279,717</i>
<i>Expenses - Subtotal</i>	<i>\$1,048,667</i>
Cost per student	\$13,108
Net Profit	\$78,903

Appendix C

Financial Management Practices

Key Questions for Managing School Finances

What is working well and what needs to be improved?

1. Staff efficiency
2. New textbooks and supplies
3. Maintenance improvements
4. Health care and worker compensation costs and increases

Where can you invest the profits generated from early childhood programs for the long-term needs of the school?

1. Expanding current classroom capacity
2. Building new classrooms
3. Marketing to target families

Are the following tasks being performed?

1. Are you using a computer system (i.e. QuickBooks) to record financial transactions?
2. Are you paying bills using the A/P function of your software rather than handwriting checks?
3. Are you managing tuition collection using a tuition management system (i.e. FACTS)?
4. Does your school accept credit cards for tuition and other payments?
5. Do you enter all bank account transactions regularly?
6. Do you conduct a review of bank reconciliations on all bank accounts monthly by someone independent of processing the transactions?
7. Which do you conduct? (Printing and reviewing the budget vs. Actual and Balance sheet monthly or quarterly)
8. Are you projecting cash flow on a regular basis?
9. Do you conduct regular monitoring of tuition collection and delinquencies by someone independent of processing transactions?

Who performs these tasks?

1. Paying the bills; reviewing and approving invoices; signing checks
2. Establishing tuition payment plans through tuition management system (i.e. FACTS)
3. Monitoring tuition collection and delinquencies and communicating with families
4. Processing credit card transactions
5. Projecting cash flow on a regular basis
6. Checking for correct classification of income and expense transactions into accounting software
7. Reconciling bank accounts monthly to balance per the accounting software
8. Generating monthly reports of budget vs. actual and providing explanation of variances
9. Review and approve payroll
10. Employee insurances and benefits

Best Practices for School Finance Managers	
<i>Revenue and Cash Receipts</i>	<i>Expenses and Payroll</i>

<ul style="list-style-type: none">● Ensure separation of duties when handling cash● Review financial responsibility for tuition and fees with families● Monitor collections, including NSF, and delinquencies● Set budget for fundraising events and monitor actual results. A good metric is expenses less than 50% of total revenue from events.	<ul style="list-style-type: none">● Review and approve vendor invoices in accordance with budget; provide instruction on correct classification● Compare invoices to checks; make sure invoices are marked paid● Review and approve any changes to employee pay rates and deductions● Accrue payroll based on school year not payment date
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Appendix D



Diversity of Materials Checklist

Categories of Diversity	Books	Pictures & Posters (NOTE: Pictures of children and their families do not count for this item)	Other Materials (e.g., dolls, puppets, play food, cultural cooking utensils, small people figurines, wheelchair for dolls, dress-up clothes, play money from different cultures, fabric/blankets from different cultures, real equipment used by people with disabilities, etc.)
Races			
Cultures (traditions of different groups such as holidays, foods, clothes; how different groups live and do things; books in other languages)			
Ages (e.g., children, parents, grandparents)			
People with differing abilities (e.g., individuals with disabilities and how they might use aids such as eyeglasses, a hearing aid)			
Gender in non-stereotypical roles (e.g., men and women shown doing different types of work including traditional and non-traditional roles)			

There should be many books (at least 3-5), many pictures/posters (at least 3-5) and other materials (at least 3-5) that reflect diversity. All categories of diversity must be included to some degree (race, culture, age, ability, and gender).

Appendix E

Supplemental Activities to Support Play within English Language Arts

Learning Centers: Adding Meaningful Writing Materials and Literacy Props	
Center	Emergent writing materials and literacy props
Discovery	<ul style="list-style-type: none"> ■ Provide clipboards with paper and pencils to record observations and collect data ■ Add paper and craft sticks for children to create seed packet labels for growing plants ■ Turn the area into a national weather station or scientific research center, and have the children paint signs labeling the center and record their observations in a scientific journal or observation log
Blocks	<ul style="list-style-type: none"> ■ Add a graph paper notebook labeled "Blueprints," and provide real blueprints ■ Attach Velcro to clipboards and rulers for drawing blueprints or designs for building structures, and secure them to the back of shelves in the block area for easy access ■ Provide craft sticks, index cards, and tape to create road signs ■ Include receipt books and pads of paper to create work orders ■ Add house plan magazines, pictures of buildings, and nonfiction books about construction to spark building ideas 
Dramatic play	<ul style="list-style-type: none"> ■ Add notepads and pencils to encourage children to write prescriptions, take food orders, create grocery lists, or compose phone messages ■ Add restaurant menus and cookbooks ■ Place a large piece of paper or chalkboard on the wall for children to write signs and announcements ■ Encourage children to turn the dramatic play area into a post office, dentist office, beauty salon, airport, police station, fire station, or doctor's office by decorating the area with pictures and writing words to describe their community center ■ Create a veterinary pet clinic, and provide children with office file folders to record information on a pet's health and small notebooks to record instructions about the pet's future care
Writing	<ul style="list-style-type: none"> ■ Promote interest in your writing center by changing its function: one month, create an insect and arachnid research station and add books, pictures, and words about insects and spiders; another month, add props and turn the writing center into an office, beauty parlor, post office, or newsroom ■ Add different types of tools, such as stencils, hole punches, and stamps ■ Add sandpaper letters, magnetic letters, and other types of letters to promote alphabet knowledge 

Appendix F

Suggested children's literature to add to each area of classroom, these should be rotated over the year.

Title	Author	ISBN#
<i>English Language Arts</i>		
Bunny Cakes	Wells, Rosemary	978-0670886869
Chicka Chicka Boom Boom	Martin Jr, Bill	978-1442450707
Click, Clack, Moo, Cows that Type	Cronin, Doreen	978-1416903482
Rocket Writes a Story	Hills, Tad	978-0375870866
The Day the Crayons Quit	Daywalt, Drew	978-0399255373
<i>Math Area</i>		
A Color of His Own	Leoni, Leo	978-0679887850
Animal Patterns	Olson, Nathan	978-0736878463
Balancing Acts	Walsh, Ellen Stoll	978-1442407572
Bear Counts	Wilson, Karma	978-1481499521
Bear Sees Colors	Wilson, Karma	978-1442465367
Cat's Colors	Cabrera, Jane	978-0140564877
Chicka Chicka Boom Boom	Martin Jr., Bill & Archambault, John	978-1442450707
City Patterns	Olson, Nathan	978-0736878487
Color Dance	Jonas, Anna	978-0688059903
Color Zoo	Ehlert, Lois	978-0694010677
Counting	Pluckrose, Henry	978-0531135167
Cubes, Cones, Cylinders, & Spheres	Hoban, Tana	978-0688153250
Dog's Colorful Day	Dodd, Emma	978-0142500194
Farm Patterns	Olson, Nathan	978-0736878500
Feast for 10	Falwell, Cathryn	978-0618382262
Fish Eyes: A Book you Can Count On	Ehlert, Lois	978-0152162818
Food Patterns	Olson, Nathan	978-0736878470
Freight Train	Crews, Donald	978-0688149000
Green	Seeger, Laura Vaccaro	978-1596433977
How Do Dinosaurs Learn their Colors	Yolen, Jane	978-0439856539
How Do Dinosaurs Count to Ten	Yolen, Jane	978-0439649490
How Many Bugs in a Box?	Carter, David	978-1416908043
How Many Snails?	Giganti Jr., Paul	978-0688136390
Is it Larger? Is It Smaller?	Hoban, Tana	978-0688152871
Length	Pluckrose, Henry	978-0516454535
Little Blue and Little Yellow	Lionni, Leo	978-0399555534
Lots and Lots of Zebra Stripes	Swinburne, Stephen R	978-1563979804
Mix it Up!	Tullet, Herve	978-1452137353
More, Fewer, Less	Hoban, Tana	978-0688156930
Mouse Count	Walsh, Ellen Stoll	978-0152002237
Mouse Paint	Walsh, Ellen Stoll	978-0152001186

One Duck Stuck: A Mucky Ducky Counting Book	Root, Phyllis	978-0763615666
Patterns at the Museum	Steffora, Tracey	978-1432949310
Pattern Bugs	Harris, Trudy	978-0761321071
Pattern Fish	Harris, Trudy	978-0761317128
People Patterns	Olson, Nathan	978-0736878494
Perfect Square	Hall, Michael	978-0061915130
Plant Patterns	Olson, Nathan	978-1515735106
Round is a Mooncake	Thong, Roseanne	978-1452136448
Shape	Pluckrose, Henry	978-0531135204
Shape by Shape	MacDonald, Suse	978-1416971474
Size	Pluckrose, Henry	978-0516454573
So Many Circles, So Many Squares	Hoban, Tana	978-0688151652
Sort it Out!	Mariconda, Barbara	978-1934359327
Sorting	Pluckrose, Henry	978-0531135228
Teddy Bear Counting	McGrath, Barbara Barbieri	978-1580892162
Ten Black Dots	Crews, Donald	978-0688135744
Ten Red Apples	Hutchins, Pat	978-0688167974
The Button Box	Burns, Marilyn	978-0140554953
The Doorbell Rang	Hutchins, Pat	978-0688092344
The Greedy Triangle	Burns, Marilyn	978-0545042208
The Shape of Things	Dodds, Dayle Ann	978-0613000567
Weight	Pluckrose, Henry	978-0531135242
Block Area		
Block City	Heston, Dawn & Stevenson, Robert Louis	978-0983642411
Dreaming Up: A Celebration of Building	Hale, Christy	978-1600606519
I Read Signs	Hoban, Tana	978-0688073312
Iggy Peck, Architect	Beatty, Andrea	978-0810911062
Not a Box	Portis, Antoinette	978-0061994425
See Inside Famous Buildings	Hughes, Howard	978-0746097755
Signs in My Neighborhood	Lyons, Shelly	978-1620658895
When I Build with Blocks	Alling, Niki	978-1477535318
The Three Little Pigs	ANY VERSION	
STEM Area		
All About Me	National Geographic Kids	978-1426314834
Bugs	National Geographic Kids	978-1426318764
Clouds	Edison, Erin	978-1429670777
Day and Night	Hall, Margaret	978-0736896153
Dirt: The Scoop on Soil	Rosinsky, Natalie	978-1404803312

Exploring Spring	DeGezelle, Terri	978-1429679107
Farm Animals	National Geographic Kids	978-1426323072
Floating and Sinking	Hansen, Amy	978-1617419409
Hearing	Rissman, Rebecca	978-1432936860
I Use Science Tools	Hicks, Kelli	978-1617419317
I Want to Be a Scientist	Leibman, Dan	978-1770857896
In My Garden	National Geographic Kids	978-1426328442
Learning about Rocks	Schuh, Mari	978-1429671088
Lightning	Edison, Erin	978-1429670784
Living or Nonliving?	Hicks, Kelli	978-1617419454
Look Outside!	National Geographic Kids	978-1426327025
My Five Senses	Aliki	978-0062381927
Organic Chemistry for Babies	Ferrie, Chris & Florance, Cara.	978-1492671169
Quantum Physics for Babies	Ferrie, Chris & Florance, Cara.	978-1492656227
Rain	Edison, Erin	978-1429670791
Rocket Science for Babies	Ferrie, Chris & Florance, Cara.	978-1492656258
Science Safety Rules	Hicks, Kelli	978-1617419324
Seeing	Rissman, Rebecca	978-1432936853
Smelling	Rissman, Rebecca	978-1432936877
Tasting	Rissman, Rebecca	978-1432936891
Touching	Rissman, Rebecca	978-1432936884
Shadows and Reflections	Hoban, Tana	978-0688070892
Things That Go	National Geographic Kids	978-1426317064
What Can Magnets Do?	Fowler, Allan	978-0516460345
What is a Scientist?	Lehn, Barbara	978-0761312987
<i>Dramatic Play</i>		
Hola, Jalapeno	Sanger, Amy Wilson	978-1582460727
Mangia! Mangia	Sanger, Amy Wilson	978-1582461441
Mr. Cookie Baker	Wellington, Monica	978-0525423720
Pizza!	Nieminen, Lotta	978-0714874104
Pizza at Sally's	Wellington, Monica	978-0525477150
Pizza Day	Iwai, Melissa	978-1627797900
Pancakes!	Nieminen, Lotta	978-0714872834
Put it on the List	Darbyshire, Kristen	978-0525479062
Soup Day	Iwai, Melissa	978-0545939676
Tacos!	Nieminen, Lotta	978-0714875057
What Happens at a Supermarket	Hutchings, Amy	978-1433901331

Appendix G

Student Support Team Forms

Form 1A. Identify the challenge in question

Student Information	Name	D.O.B/ Age	Prior School Experience (Y/N) location, etc.	Currently involved with other resources? (EI, DCF) Explain
Example:	John Smith	12/3/14- 3.5	Yes- toddler program at this school for 1 year	Had EI but tested out, not currently receiving services

Check the resources you've accessed through your school (or list others)

- Early Intervention
- Home for Little Wanderers
- Bay Cove Drop in Family Resource Center (Quincy/ American Legion Highway)
- Early Childhood Mental Health Grant
- City Connects (Boston College)

Explicitly describe the challenge and pertinent conditions

Challenge: (Example) John is having trouble transitioning into small groups.			
What exactly is happening?	Does there seem to be an antecedent or specific target?	What is the setting? (Activity/ place)	What time of day does this occur?
When circle time is over and it's time for groups, John refuses to leave the rug and screams when he's asked to go to his group.	Not sure, circle ending/ switching activities.	Only the transition from morning meeting to small groups. Other transitions from circle are not a problem.	Morning, around 9:00.

Form 1B - Observation



PTR-YC Functional Behavioral Assessment Checklist: Prevent

Challenging behavior: _____ Person responding: _____ Child: _____

1. Are there times of the day when challenging behavior is most likely to occur? If yes, what are they?				
<input type="checkbox"/> Morning <input type="checkbox"/> Afternoon	<input type="checkbox"/> Before meals <input type="checkbox"/> Evening	<input type="checkbox"/> During meals <input type="checkbox"/> Naptime	<input type="checkbox"/> After meals	<input type="checkbox"/> Preparing meals
Other: _____				
2. Are there times of the day when challenging behavior is least likely to occur? If yes, what are they?				
<input type="checkbox"/> Morning <input type="checkbox"/> Afternoon	<input type="checkbox"/> Before meals <input type="checkbox"/> Evening	<input type="checkbox"/> During meals <input type="checkbox"/> Naptime	<input type="checkbox"/> After meals	<input type="checkbox"/> Preparing meals
Other: _____				
3. Are there specific activities when challenging behavior is very likely to occur? If yes, what are they?				
<input type="checkbox"/> Arrival <input type="checkbox"/> Dismissal <input type="checkbox"/> Large-group times <input type="checkbox"/> Small-group times	<input type="checkbox"/> Naptime <input type="checkbox"/> Toileting/diapering <input type="checkbox"/> Special event (specify) _____	<input type="checkbox"/> Peer interactions <input type="checkbox"/> Centers/free play <input type="checkbox"/> Meals	<input type="checkbox"/> Snack <input type="checkbox"/> Transitions (specify) _____	
Other: _____				
4. Are there specific activities when challenging behavior is least likely to occur? What are they?				
<input type="checkbox"/> Arrival <input type="checkbox"/> Dismissal <input type="checkbox"/> Large-group times <input type="checkbox"/> Small-group times	<input type="checkbox"/> Naptime <input type="checkbox"/> Toileting/diapering <input type="checkbox"/> Special event (specify) _____	<input type="checkbox"/> Peer interactions <input type="checkbox"/> Centers/free play <input type="checkbox"/> Meals	<input type="checkbox"/> Snack <input type="checkbox"/> Transitions (specify) _____	
Other: _____				
5. Are there other children or adults whose proximity is associated with a high likelihood of challenging behavior? If so, who are they?				
<input type="checkbox"/> Siblings <input type="checkbox"/> Family member(s) <input type="checkbox"/> Care provider(s) <input type="checkbox"/> Other adults	Specify: _____ Specify: _____ Specify: _____ Specify: _____	<input type="checkbox"/> Teacher <input type="checkbox"/> Parent <input type="checkbox"/> Other children (specify) _____		
Other: _____				
6. Are there other children or adults whose proximity is associated with a low likelihood of challenging behavior? If so, who are they?				
<input type="checkbox"/> Siblings <input type="checkbox"/> Family member(s) <input type="checkbox"/> Care provider(s) <input type="checkbox"/> Other adults	Specify: _____ Specify: _____ Specify: _____ Specify: _____	<input type="checkbox"/> Teacher <input type="checkbox"/> Parent <input type="checkbox"/> Other children (specify) _____		
Other: _____				

Form excerpted from: Dunlap, G., Wilson, K., Strain, P., Lee, Janice K. (2013). Plan Teach Reinforce for Young Children: The Early Childhood Model of Individualized Positive Behavior Support. Brookes Publishing.

Appendix H
ECERS

Drawing (required)	Paints	3-D	Collage	Tools
<ul style="list-style-type: none"> • Chalk • Chalk boards • Crayons • Dry erase boards • Markers • Paper • Pencils • Pens • Other (list) 	<ul style="list-style-type: none"> • Fingerpaints • Tempera paints • Watercolor paints • Other (list) 	<ul style="list-style-type: none"> • Clay • Modeling compound • Pipe cleaners • Playdough • Wood • Styrofoam • “Junk” (e.g., cardboard tubes, paper boxes, packing material, etc. – only counts for 3D material IF used to create 3D art) • NOTE: Gluing small 3D materials such as styrofoam chips to a flat surface does not count as 3D work, unless the work is built up substantially, away from the base surface 	<ul style="list-style-type: none"> • Buttons • Cardboard tubes • Cotton balls • Egg cartons • Feathers • Felt scraps • Glitter • Magazines • Paper • Paste • Pom-poms • Sequins • Yarn/string • Other (list) 	<ul style="list-style-type: none"> • BINGO/Dot markers • Brushes • Hole punches • Playdough tools • Rollers • Ruler • Scissors • Sponge painters • Stamps/stamp pad • Stapler • Stencils • Tape • Other (list)

Art 3-5 examples in at least 4 of the 5 art categories; drawing materials are required