Pennsylvania's Standards for Kindergarten





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Pennsylvania's Standards for Kindergarten Table of Contents

Guiding Principles Executive Summary: Guidelines for Assessment Key Learning Areas: Aproaches to Learning Standard AL 1 Initiative and Curiosity	
Key Learning Areas: Approaches to Learning Standard AL 1 Initiative and Curiosity	15
Approaches to Learning Standard AL 1 Initiative and Curiosity	
Standard AL 1 Initiative and Curiosity	
Standard AL 2 Engagement and Persistence Standard AL 3 Reasoning and Problem Solving Standard AL 4 Flexibility, Risk Taking and Responsibility Standard AL 4 Flexibility, Risk Taking and Responsibility Standard AL 5 Imagination, Creativity and Invention Arts and Humanities	
Standard AL 3 Reasoning and Problem Solving	21
Standard AL 4 Flexibility, Risk Taking and Responsibility	22
Standard AL 5 Imagination, Creativity and Invention Arts and Humanities	23
Arts and Humanities Standard 9.1: Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts Standard 9.2: Historical and Cultural Context of Works in the Arts Standard 9.3: Critical Response to Works in the Arts Standard 9.4: Aesthetic Response to Works in the Arts Standard 9.4: Aesthetic Response to Works in the Arts Standard 9.1: Parenterships Standard P1: Parenting Standard P2: Communication Standard P3: Volunteering Standard P4: Learning at Home	24
Standard 9.1: Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts Standard 9.2: Historical and Cultural Context of Works in the Arts Standard 9.3: Critical Response to Works in the Arts Standard 9.4: Aesthetic Response to Works in the Arts Family-School-Community Partnerships Standard P1: Parenting Standard P2: Communication Standard P3: Volunteering Standard P4: Learning at Home	25
Standard 9.2: Historical and Cultural Context of Works in the Arts Standard 9.3: Critical Response to Works in the Arts Standard 9.4: Aesthetic Response to Works in the Arts Family-School-Community Partnerships Standard P1: Parenting Standard P2: Communication Standard P3: Volunteering Standard P4: Learning at Home	
Standard 9.3: Critical Response to Works in the Arts	
Standard 9.3: Critical Response to Works in the Arts	
Standard 9.4: Aesthetic Response to Works in the Arts Family-School-Community Partnerships Standard P1: Parenting Standard P2: Communication Standard P3: Volunteering Standard P4: Learning at Home	
Standard P1: Parenting Standard P2: Communication Standard P3: Volunteering Standard P4: Learning at Home	37
Standard P1: Parenting Standard P2: Communication Standard P3: Volunteering Standard P4: Learning at Home	
Standard P2: Communication Standard P3: Volunteering Standard P4: Learning at Home	41
Standard P3: Volunteering Standard P4: Learning at Home	
Standard P4: Learning at Home	
0	
Standard P6: Collaborating with the Community	
Health, Safety and Physical Education	
Standard 10.1: Concepts of Health	49
Standard 10.2: Healthful Living	
	53 57
Standard 10.5: Concepts, Strategies and Principles of Movement	

Mathematics

Standard 2.1:	Numbers, Number Systems and Relationships	63
Standard 2.2:	Computation and Estimation	65
Standard 2.3:	Measurement and Estimation	67
Standard 2.4:	Mathematical Reasoning and Connections	70
Standard 2.5:	Mathematical Problem Solving and Communication	71
Standard 2.6:	Statistics and Data Analysis	72
Standard 2.7:	Probability and Predictions	73
Standard 2.8:	Algebra and Functions	74
Standard 2.9:	Geometry	76
Standard 2.10:	Trigonometry	78
Standard 2.11	Calculus	79

Personal Social

Standard PS.1:	Develop Self Concept	83
Standard PS 2:	Develop Care and Self Reliance	84
Standard PS.3:	Develop Social Interactions	85
Standard PS.4:	Develop Self Regulation	86

Reading, Writing, Speaking and Listening

Standard 1.1:	Learning to Read Independently	89
Standard 1.2:	Reading Critically in all Content Areas	102
Standard 1.3:	Reading, Analyzing, and Interpreting Literature	105
Standard 1.4:	Types of Writing	107
Standard 1.5:	Quality of Writing	110
Standard 1.6:	Speaking and Listening	115
Standard 1.7:	Research	119

Science

Science and Technology

Standard 3.1:	Unifying Themes	125
Standard 3.2:	Inquiry and Design	129
Standard 3.3:	Biological Sciences	132
Standard 3.4:	Physical Sciences	135
Standard 3.5:	Earth Sciences	139
Standard 3.6:	Technology Education	143
Standard 3.7:	Technological Devices	146

Environment and Ecology

Standard 4.1:	Watersheds and Wetlands	151
Standard 4.2:	Renewable and Nonrenewable Resources	152
Standard 4.3:	Environmental Health	153
Standard 4.4:	Agriculture and Society	154
Standard 4.6:	Ecosystems and their Interactions	155
Standard 4.7:	Threatened, Endangered and Extinct Species	156
Standard 4.8:	Humans and the Environment	157
Standard 4.9:	Environmental Laws and Regulations	158

Social Studies

Civics and Government

Standard 5.1:	Principles and Documents of Government	161
Standard 5.2:	Rights and Responsibilities of Citizenship	162
Standard 5.3:	How Government Works	163
Economics		
	Economic Systems	
Standard 6.1:		164
	Scarcity of Choice	
Standard 6.2:		165
Standard 65	Work and Earnings	1.00
Standard 6.5:		166
Geography		
Standard 7.1:	Basic Geography Literacy	167
Stanuaru 7.1.	The Physical Characteristics of Places and Regions	107
Standard 7.2:	The Thysical Characteristics of Theees and Regions	168
	The Interaction Between People and Places	100
Standard 7.3:	1	169
History		
v	History - Historical Analysis and Skills Development	
Standard 8.1:		170
	History - United States History	
Standard 8.2:		171

Glossary	 173	
Appendix	 176	
		5



Pennsylvania's Kindergarten Standards were developed as a joint project of the Departments of Education and Welfare in support of Governor Rendell's commitment to early childhood education and care. The Kindergarten Standards are meant to guide the development of kindergarten programs throughout the state. A Task Force consisting of early childhood practitioners, kindergarten teachers, school administrators, policy analysts, researchers and university faculty developed the standards. Support for the development of the standards was provided through the national Build Initiative, which is a multi-state partnership that helps states construct a coordinated system of programs and policies that respond to the needs of young children.

INTRODUCTION TO PENNSYLVANIA'S KINDERGARTEN STANDARDS

The Commonwealth of Pennsylvania is committed to establishing high academic standards for all students pre-K through grade 12. Research-based standards are the key to laying a strong academic foundation that will provide children with skills necessary to succeed in every phase of their lives.

Standards-based practices maximize student learning by:

- guiding teachers' deliberate and intentional instructional practice,
- supporting effective classroom environments, and
- framing teachers' age-appropriate expectations for their students

The kindergarten year is a critical one and is often the transition from home or pre-kindergarten into the formal school setting. Research has shown the value of active learning for both cognitive and social development. Children learn key skills of literacy, numeracy, and social problem solving through shared exploration and interaction with their environment in a naturalistic fashion. They develop their understanding of the world around them and how it relates to them by interacting with materials, other children and their teacher.

Kindergarten classrooms supported by the use of standards facilitate children's learning across key curricular areas while emphasizing rigorous literacy and numeracy experiences. They provide the kindergartner with opportunities to construct knowledge and meaning through active, hands-on exploration in a variety of configurations which include large and small group, individual and partner activities.

The most effective methods utilized by kindergarten teachers should include explicit instructional language, active engagement with students, and differentiated instruction that meets the needs of all learners while supporting high quality student expectations.

The learning behaviors that assure school success include:

- listening
- participation
- task persistence
- self-regulation
- making choices
- exhibiting self-control
- organization
- cooperation
- respecting the rights, feelings and property of others

Teachers can support children's individualized learning opportunities by providing them with meaningful experiences that engage their interests, abilities and cultures. Teachers who have clear, age-appropriate expectations for children's behavior provide a balance of independence and guidance.

Approaches to Learning

The goal of the Kindergarten Standards is to promote the development of a child who has the attributes of: inventiveness, curiosity, persistence, engagement, reasoning, problem solving, responsibility, imagination, and creativity. To assist the child in obtaining these attributes, the adult should approach the child's learning through actions that encourage the child to:

Invent	Fantasize	Conceive	Deliberate	Apply
Start	Encounter	Visualize	Adapt	Evaluate
Plan	Confront	Envision	Adjust	Generalize
Lead	Persist	Commit	Inquire	Conclude
Endure	Create	Think	Question	Compare
Analyze	Deduce	Deduct	Predict	Discriminate

Classroom environments should stimulate the kindergartener's curiosity, initiative and inquiry and foster opportunities for adult-student interaction. Classrooms should be organized and structured to support all areas of development through a range of instructional techniques and strategies, be rich in literacy, and integrate literacy and numeracy throughout the day. They should provide children with a safe, comfortable atmosphere where they can practice newly acquired skills and build on them to learn new information. The classroom environment should accommodate active and quiet activities. It should offer opportunities for solitary, parallel and group interaction observable by an adult.

In addition to a robust set of standards to guide practice, kindergarten programs should utilize a system of assessment that is valid and reliable, comprehensive, developmentally appropriate and linguistically responsive in order to document a child's growth and development in relation to a defined set of standards. This assessment becomes the mechanism to inform and support instruction.



THE KINDERGARTEN STANDARDS

The Pennsylvania Kindergarten Standards are designed as a framework for quality in kindergarten programs and to provide guidance about what children should know or be able to do. The standards are inclusive of all children and are meant to be used to:

- inform teachers and administrators about curriculum and assessment, and to guide in the selection of instructional materials that promote an emphasis on cross-curricular integration,
- inform parents of appropriate expectations for kindergartners,
- support community and education partnerships by providing a common framework for discussions about curriculum, assessment and transition into kindergarten and first grade.
- establish partnerships.

The Kindergarten Standards are NOT meant to be used:

- as a specific curriculum or to mandate specific teaching practices or materials,
- to prohibit children from entering first grade, nor
- to assess the competence of children or teachers.

RATIONALE FOR PERSONAL/SOCIAL LEARNING AND DEVELOPMENT

As a child participates in the ongoing classroom routine, the social curriculum supports the academic curriculum. The child who can negotiate interactions with a variety of adults and peers is better equipped to take advantage of the new knowledge base. By following classroom routines and rules, the child moves from whole group to small group to independent work with confidence and efficiency. This provides maximum opportunities for growth and development. By learning to negotiate conflicts and modify his/her behaviors, the child is better served in all environments. These standards provide direction for teachers to enhance this important aspect of learning.

RATIONALE FOR PARTNERSHIPS

The definition of *partnership* according to Webster is: "one or more persons owning jointly a business and who shares the risks and profits of the company or firm." All citizens in the Commonwealth are stakeholders in how effectively we are educating our youth. The result impacts families, communities, law enforcement agencies, social and health agencies, the job market, and both local and state government. The obvious responsibility of a formal education has been assigned to the local schools. Children, however, are exposed to many other

personal and cultural influences that impact learning. It is crucial to develop a system of communication and contact with the various participants who occupy a role in the development of a child.

A key component in the life of a young child is to provide a smooth transition from an early learning experience to the public school. Research indicates that early-school adjustment often has a long-term effect on children. A partnership needs to be established between the early care providers and school personnel in order to provide positive continuity between programs.

Parents, who are a child's first teacher, must be involved in the transition process. They must be recognized as an integral part of a child's educational life, and be informed of what the expectations are in a kindergarten program, including the Kindergarten Standards.

The school needs to establish a collaboration with health/social service agencies that have been involved with a child. This connection is necessary in order to address the full range of a child's needs and circumstances that will impact learning.

There needs to be staff development opportunities for kindergarten teachers and early care providers, preferably together. This will build a common knowledge base and provide a networking experience to discuss developmentally and culturally appropriate practices.

Teachers must be trained specifically to understand early childhood development, which is the responsibility of the institutions of higher learning. There should be a strong bond between the colleges and school districts in providing opportunities for student teaching experiences, and being cognizant through ongoing dialogue and feedback of what the specific curricular requirements/standards are, and how to achieve those standards in a classroom setting. Teachers with a strong background in early childhood education and child development can best provide what children need to grow emotionally, physically and intellectually.

Community leaders and policymakers need to be aware of the importance of early childhood education and the standards for learning. The success of the local education system begins in the early years prior to a child entering kindergarten. Local leaders need to understand the diversity of children, yet realize the sense of urgency in assisting and supporting the education of young children.

KINDERGARTEN STANDARDS' LINK WITH PENNSYLVANIA'S ACADEMIC STANDARDS

Pennsylvania's Kindergarten Standards have been linked to both the Early Learning Standards for Pre-Kindergarten and the Third Grade Standards. The format has been built from the Pre-Kindergarten Standards and uses examples and supportive practices for classroom use. Teachers can utilize this information as a resource for instruction. Third Grade Standards have been noted at the top of each Standard in each Key Learning Area to enable practitioners to connect their kindergarten work with future learning requirements.

GUIDING PRINCIPLES

High quality kindergarten programs offer learning opportunities that have a significant impact on the success of all children. A warm, responsive relationship with a highly trained teaching staff is foundational. It is expected that teachers will intentionally integrate developmental knowledge with the attitudes, skills and concepts that children need to make steady progress socially, emotionally, physically and cognitively. Outstanding kindergarten programs maintain high expectations for all children using clear performance standards. A continuous cycle of assessment, which is understood by the professional staff and parents, must be utilized to track progress and success.

- 1. All children can learn and deserve high expectations that are age and culturally appropriate, taking into account individual differences.
- 2. Young children learn best through intentionally planned activities that enable them to construct knowledge through real life connections, peer interactions, meaningful play and active exploration of the environment.
- 3. The learning environment for young children stimulates and engages their curiosity about the world around them, and meets their physical and emotional needs whereby the children feel safe and secure.
- 4. Language and early literacy development is supported and integrated throughout all aspects of early childhood programs including kindergarten.
- 5. Children's development and learning is supported when their teachers are trained in early childhood development and education, and participate in ongoing opportunities for quality professional development, work with children and families and are intentional in their relationships
- 6. High quality kindergarten programs recognize and provide for the individual needs of a diverse population of children, including English language learners, children with special needs, children from diverse cultural backgrounds and socio-economic groups, and children from various early care and educational settings.
- 7. High quality kindergarten programs are defined by a set of comprehensive standards that maximize children's growth and development across domains.
- 8. High quality kindergarten programs use an appropriate system of assessment that documents children's growth and development in relationship to a defined set of standards to guide teaching and learning.
- 9. Children's development, learning, knowledge and health are enhanced when a strong partnership exists between families, schools and communities.
- 10. High quality kindergarten programs have a collaborative relationship and ongoing communication between early care and education settings to provide a smooth transition of children and families into kindergarten.

**Footnote:

Young children with disabilities will meet standards consistent with their individualized education program (IEPs) goals developed by IEP teams in accordance with the federal Individuals with Disabilities Improvement Act (IDEIA) and Pennsylvania's Early Intervention Services System Act (Act 212 of 1990).



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EARLY CHILDHOOD ASSESSMENT FROM BIRTH TO AGE 8 EXECUTIVE SUMMARY

Developmental assessments are an integral part of the process which elevates an understanding of a child's competencies, and supports the design of learning environments which will help the child grow to his/her developmental potential, ranging from birth to age 8 or third grade. Assessments that are implemented in the classroom and aligned with Pennsylvania's Standards for learning (birth to age 8) will help inform teachers about how to construct a curriculum that provides multiple learning opportunities that accommodate the various learning styles which encompass the needs of all children.

Background

The overall purpose of assessment, regardless of age, is to help teachers make appropriate instructional decisions about how to best teach children. The principles and philosophy of assessment that we often apply to young children are part of a continuum that begins at birth and extends through kindergarten to third grade. Measurement, which includes both assessment and evaluation, of a young child's proficiency must rely upon practices that fit expected learning skills and behaviors, and allow for appropriate and expected changes to support children as they grow and develop. For example, young children learn and exhibit learning differently than older children. Young children learn by doing rather than just listening and may best exhibit what they know in manipulative actions rather than using verbal or written forms of testing. Assessment methods for children need to support these changes along the continuum to gather reliable data.

Assessment results can identify both the well-developed and least developed skills of children so that beneficial learning experiences and purposeful instruction can be individually planned and implemented. Assessment of children from birth to age 8 is conducted to plan beneficial opportunities for each child. Early childhood assessment is NOT conducted primarily for diagnostic purposes, that is, to determine whether the child has comparative deficits or delays in reference to peers his/her age. Furthermore, assessment is NOT conducted to classify the child's "readiness" for inclusion in an educational setting, and assessment is DEFINITELY NOT conducted to exclude the child from preschool or Kindergarten because of an erroneously presumed lack of readiness.

One particular aspect of assessment that often creates confusion is the use of screening instruments or "screeners". Screening instruments are generally characterized as being brief and cursory. These instruments are used for identifying those children who need additional testing, such as a diagnostic tool. More recently, screeners are used to assess whether a child's developmental readiness qualifies him/her to attend a specific educational program. School districts do not deny children entry to kindergarten based on the results of a readiness test (screener). However, assessment results from pre-kindergarten settings can inform kindergarten teachers about a child's developmental status. This information, used in conjunction with assessment data collected near the beginning of the kindergarten school year, can aid in the development of a curriculum that best suits each child.

Methods

The ideal method of assessing children is through ongoing authentic and naturalistic observations. In order to accurately describe the development and learning of children, these observations should occur during typical daily activities, including periods of formal/informal instruction and care routines. Assessment is not a single event. As children move into kindergarten and the primary grades, these types of assessments become more difficult to administer, but are not impossible. Norm-referenced testing, or testing to get a score, becomes more common place as children become older because of the need to assess large groups of children more quickly and to gather data that can indicate progress or lack thereof. As children progress through the grades, there are fewer opportunities to engage in ongoing, authentic assessments. Classrooms become more structured and there are fewer authentic-based instruments available for the older age group.

Parent involvement plays a critical role in assessment. Many parents lack an understanding of the purpose of assessment and what is expected and appropriate. The more that parents are included in the assessment process, the greater likelihood of their cooperation with the educational planning of their child. Parents and educators should work together as a team to fully understand a child's development.

<u>Culture</u>

Children from minority groups often present unique challenges in comparison to mainstream American children. For example, ethnically diverse children differ in their styles of interaction, such as speaking only when spoken to, being more passive, and preferring cooperative learning than competing with other children. Using authentic assessment methods is critical for children whose culture and language are different from the mainstream. Dynamic, active learning measures are preferred to standardized measures, and could help to decrease assessment bias against minority children. Authentic assessments are achievable in elementary grades, and may be of particular importance to ethnically diverse children to ascertain their developmental difficulties. Although these children will be required to participate in more standardized assessments used in many school districts; the use of authentic, observational methods should be included as a supplemental method for the culturally diverse population.

Curriculum

Curricula for children from birth to age 8 should fall along a continuum where learning activities change according to the developmental needs of the child. In the early learning years, there is a greater emphasis on the use of concrete materials and hands-on activities than of the more structured curriculum experienced in first through third grade, and to a lessor extent, kindergarten. The curriculum for children birth to age 8 should be multi-dimensional and include more than one prepackaged product available through a publisher. It must include content, methods, alignment with the Pennsylvania Standards for learning (birth to age 8), appropriate environments, and parent involvement to support the developmentally appropriate learning expectations. A curriculum defines the scope and sequence of what is taught, including specific goals in each content area. An important and underlying principle for instruction is to integrate the various subject areas into purposeful learning activities and strategies that provide a network of connected and effective learning for young children.

Summary

Assessment of young children is a critical component of learning, whether the assessment occurs when children are very young (birth) or during the primary grades in elementary school (through age 8/third grade). Assessment that informs teaching and the development of a curriculum that aligns with assessment provide the foundation for complying with the Pennsylvania Standards for learning (birth to age 8). No specific assessment will provide all of the answers, nor is the Department of Education advocating any particular assessment measure. Rather, thoughtful planning based upon best practices in assessment can lead to assessment systems and curriculum plans that meets a school district's needs, comply with Pennsylvania Standards for Learning, and benefit children, teachers, and parents in the process.

The full report "Early Childhood Assessment For Children From Birth to Age 8 (Grade 3)" can be viewed at

http://www.pde.state.pa.us/early_childhood/cwp/view.asp?a=179&Q=101706&early_childhoodNav=|3950|&early_childhoodNav=|



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Approaches to Learning





Standard	Page
AL 1.1 – AL 1.7 Initiative and Curiosity	21
AL 2.1 - AL 2.5 Engagement and Persistence	22
AL 3.1 – AL 3.8 Reasoning and Problem Solving	23
AL 4.1 – AL 4.4 Flexibility, Risk Taking and Responsibility	25
AL 5.1 – AL 5.2 Imagination and Creativity	26

Children must demonstrate proficiency in both academics and how they approach their learning environment. These approaches are most effectively learned in the context of an integrated effort involving parents, educators, and members of the community. The acquisition of these approaches is a developmental process that encompasses an individual's entire lifetime. Teachers must help children feel successful by supporting and understanding their individual differences, allowing them to explore the world in a safe and caring environment, and enhancing their curiosity and knowledge about the world in which they live.

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Approaches to Learning AL 1: Demonstrate Initiative and Curiosity				
A.L 1.1 Participate in various experiences AL1.2 Express choices/preferences during concrete, immediate and familiar activities	 The learner will: Independent choose to participate in at least 80% of the available learning centers including some new experiences 	 The teacher will: Enhance learning centers and group activities to attract child participation and enhance learning 		
AL 1.3 Demonstrate growing eagerness and satisfaction to discover and discuss a growing range of topics, ideas, and tasks	 Independently choose new and different materials to represent different thoughts or feelings Express preferences, wants and needs in a manner that is appropriate and consistent 	 Provide a classroom with clearly defined interest areas and materials that invite children to explore, discover and create Provide a variety of materials, art work, music, drama, and photographs to stimulate experiences, knowledge, participation and interests 		
AL 1.4 Use multiple strategies and all available senses to explore and learn from the environment	 Choose to engage in preferred activities that match one's strengths; talents and interests Initiate group and individual activities of 	 Provide varied subject integrated activities in the learning centers 		
Al 1.5 Comment on events or aspects of the environment	 Initiate group and individual activities of choice within familiar environment Join and leave group with ease as a leader or a follower as the situation demands 	• Provide materials/activities appealing to a variety of senses, learning styles, and multiple intelligences for individuals, small groups and larger group experiences		
AL 1.6 Ask questions and seek meaningful information AL 1.7 Initiate social greetings		 Ask open-ended and higher level questions to facilitate sharing, engage the listener, seek meaningful information and extend learning 		

	Approaches to Learning		
AL 2: Demonstrate Engagement and Persistence			
Content for Kindergarten	Examples	Supportive Practice	
AL 2.1 Show persistence in ability to complete a variety of tasks, activities, projects and experiences	 The learner will: Express choices, initiate, follow through and complete activities and projects 	The teacher will:Encourage and praise efforts and facilitate planning and completion	
AL 2.2 Demonstrate increasing ability to set goals and develop and follow through on plans	 Find, choose, and participate in appropriate, constructive and enjoyable ways to occupy leisure time Attend to cues and prompts to adapt behaviors to changing situations 	 Encourage and document sequential progress and effort Anticipate needs and acknowledge progress – both process and product 	
AL 2.3 Demonstrate ability to maintain focus on a task, question, set of directions or interactions, despite distractions and interruptions	• Initiate requests for stories, games and other learning activities	 Discuss and demonstrate how to work cooperatively Acknowledge and fulfill requests of stories, games and other learning activities when possible. 	
AL 2.4 Accept environmental conditions and maintain task orientation in a noisy/active environment			
AL 2.5 Acquire the skills necessary for participating in a group or independently			

Approaches to Learning AL 3: Demonstrate Reasoning and Problem Solving		
AL 3.1 Demonstrate a growth pattern in predicting possible outcomes related to cause and effect	The learner will:	The teacher will:
AL 3.2 Discover more than one solution to a question, task or problem	 Predict outcomes in stories Respond to "what if" questions Explain and apply multiple strategies to 	• Help children learn how to function in a group situation demonstrating how to work cooperatively through sharing and taking turns, working toward a specific goal, dividing responsibilities within a group and solving
AL 3.3 Seek and /or accept assistance from others when encountering a problem	solve problems	problems in an acceptable manner
AL 3.4 Recognize and solve problems through observation, active exploration, trial and error, interactions and discussions with peers and adults	 Talk through a problem using steps to resolution Use steps or problem solving when involved in role play and real life situations 	 Provide a variety of materials and situations to support experience with cause and effect and problem solving (ex. Second Step Program) Recognize children who support others in
AL 3.5 Demonstrate awareness of participants' needs during group activities	• Try to solve problems in conflict situations or seek assistance with conflict resolution when needed	 problem solving Teach and use vocabulary related to reasoning and problem solving (ex. If, when, after, before, next, what if, then)
AL 3.6 Respect others' personal property and space	 Begin to negotiate and compromise in order to resolve conflict Begin to empathize with those in stressful situations 	 Read stories and utilize role play which include problem solving, helping others, and multiple problem solving skills
AL 3.7 Accept assistance and/or cooperate to accomplish a joint task	• Respond appropriately to "good" and "bad" touching	 Allow children to solve problems independently when possible, but encourage seeking assistance when all avenues have been exhausted and the conflict cannot be resolved peacefully.

Approaches to Learning		
AL 3: Demonstrate Reasoning and Problem Solving		
Content for Kindergarten	Examples	Supportive Practice
AL 3.8 Classify, compare and contrast objects, events and experiences	 The learner will: Feel comfortable enough to collaborate with others in problem solving situation Use an increasing number of details and more realistic representations 	 The teacher will: Strategically place learners according their needs Offer praise and reinforcement for positive behavior Provide opportunities for learners to share concerns or role play real life situations Use open-ended questions and hands-on practice to encourage classification, sorting, comparisons, and problem solving Ask open ended questions, higher level questions and quality feedback to stimulate and extend representations

Approaches to Learning		
AL 4: Demonstrate Flexibility, Risk-Taking and Responsibility		
Content for Kindergarten	Examples	Supportive Practice
AL 4.1 Grow in the ability to differentiate between appropriate and inappropriate risk-taking.	The learner will:	The teacher will:
	• Identify and explain dangerous and inappropriate risk taking	 Ask higher level questions in play situations and while reading stories
AL 4.2 Demonstrate a willingness to choose a variety of	• Demonstrate willingness to try an increasing number of new experiences	 Ask "When", "How", "Why" questions about potentially dangerous situations
familiar and new experiences	• Volunteer and/or participate in discussions and other new learning activities	 Be accepting of children 's willingness or unwillingness to try new experiences
	• Initiate own learning and play experiences	 Pair learners to scaffold skills and experiences
	• Offer constructive suggestions to other learners and adults	 Assign or designate through learner's volunteerism who is responsible for specific classroom tasks
	Deal with success in a positive way andview failure as a growing experience	 Demonstrate an awareness of learner's needs during group activities(role play, discussions)
AL 4.3 Accept responsibility for learning through active participation verbally or nonverbally	Make and act on appropriate decisionsAccept some responsibility for the care of the	 Allow learners to express their suggestions regarding topics of discussion or material related to course of study
	classroom environment	 Offer appropriate reinforcement for responsible choices
AL 4.4 Begin to accept responsibility for one's behavior		 Assist in guiding learner's choices

Approaches to Learning AL 5: Demonstrate Initiative, Creativity and Invention		
AL 5.1 Approach tasks and experiences with increased flexibility, imagination and ingenuity AL 5.2 Use and connect materials/strategies in uncommon ways to investigate and solve problems	 The learner will: Use a plethora of materials to explore and express ideas and emotions Utilize and create props during role play activities Describe produced pieces when asked to reveal their art projects, block structures and all creative projects Assume and dramatize a variety of roles by reflecting real life situations Apply skills in real life situations 	 The teacher will: Provide sufficient amounts of time for creative play and learning center opportunities and environments Read or relate stories about real people who display their use of imagination, creativity and design Provide a diversity of materials and props in all learning centers and aspects of the environment to stimulate and promote learning, exploration, imagination and creativity Allow for diversity, differences, and abilities of learners

Arts and Humanities





	<u>Standard</u>	<u>Page</u>
9.1	Production, Performance and Exhibition of Dance,	
	Music, Theatre and Visual Arts	29
9.2	Historical and Cultural Context of Works in the Arts	35
9.3	Critical Response to Works in the Arts	36
9.4	Aesthetic Response to Works in the Arts	37

Arts and Humanities are an important component of children's early learning experiences. Children who are given opportunities to develop their imagination through a variety of media are learning to express their individuality in interests, abilities and knowledge. When they view others' work, children are also learning to appreciate and respect differences in culture and viewpoint. Arts and Humanities influence children's growing competence as creative problem solvers and learners. Teachers support kindergarten learners by providing ongoing opportunities that integrate arts and humanities into cross-curricular areas.

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9.1 Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts

Third Grade Standards:

- Knows the elements and principles in all art forms
- Creates and performs in all art forms
- Identifies themes in all art forms
- Knows the functions of rehearsals and practice in all art forms
- Knows safety issues in all art forms
- Identifies community performances and exhibitions in all art forms
- Uses technologies in all art forms

Content for Kindergarten	Examples	Supportive Practices
A. Develop using the elements of high and low space in danceB. Develop using the elements of high and low in space in dance	 The learner will: Follow different movements of the teacher. Create movements of different tempos. Analyze how various objects move and try to move in that way. Participate in interpretive dance activities. Identify objects that move fast or slow. 	 The teacher will: Demonstrate movement using time, space and locomotion. Read a story about a particular animal and have students move like that animal. Provide opportunities for learners to watch and discuss presentations or videos of dance. Provide different kinds of music for learners to dance to. Provide props to use when dancing, such as ribbons, hoops, and sticks.

ARTS AND HUMANITIES

Content for Kindergarten	Examples	Supportive Practices
 C. Practice using the elements of timbre (quality of sound; intensity and pitch) and rhythm (a regular recurrence of strong and weak beats) and volume (loud/soft) D. Develop an understanding of melody as an important musical element E. Develop using the elements of character, setting, and action in theater arts 	 The learner will: Sing and play instruments loudly and softly Adjust timbre of voice to match a poem or song. Invent rhythm to accompany a favorite story or poem. Keep rhythm to a song or poem using body movements or instruments. Sing the melody of a song. Use instruments to demonstrate the melody of a song. Act out parts of stories by inventing a voice and creating various facial expressions for the main character. Visualize the setting of the story; envision the details that could be seen in this setting and describe or illustrate them. Think about the particular actions in a story – act them out. 	 The teacher will: Demonstrate singing and sources of sound in music. Share a song or poem; have students clap the rhythm and adjust timbre of response to match the mood of the song or poem. Provide a variety of instruments for students to use, such as bells, chimes, shakers, and rhythm sticks. Provide opportunities to learn about vibrations with chimes, vocal chords, and rubber bands. Model the voices and facial expressions of characters while reading aloud . Model different voices during poems, stories, and songs. After sharing a story several times, have students repeat main character's repetitive lines. Model visualizing the setting of poems, stories, and songs. Provide opportunities for students to perform poems,
F. Use the elements of line, shape, texture, and color	 Paint and draw works of art. Create a picture using lines and shapes. Create various textures in a picture using different media. Create a simple sculpture using clay and various tools to create texture. Use paints to create new shades and colors. Use color to create mood and setting in a picture. 	 plays, and stories. Model the use of line, shape, texture, and color. Define and demonstrate various textures (rough, smooth, shiny, hard, soft). Provide various found objects with different textures – sort by texture. Display artworks as inspiration for creative art. Provide a variety of media for students to use when creating art.

Content for Kindergarten	Examples	Supportive Practices
G. Create and perform music	 The learner will: Express ideas and feelings through music. Use instruments to create a song. Compose a variety of music within guidelines 	 The teacher will: Model examples of creating music. Provide instruments for students to use. Create different lyrics to a familiar song.
H. Create and perform a play	 Express ideas and feelings through actions. Create a play based on a familiar story. Use appropriate tone, actions, and speech to represent characters, setting, and plot in a play. 	 Encourage learners to create plays based on stories read aloud. Provide materials to create settings and or simple costumes. Demonstrate to the students the role of the audience. Demonstrate to the students the role of the actors.
I. Create self-expressive images 	 Create image of self. Express ideas and feelings through visual arts. Choose/use media to create images. Create pictures that define mood. Relate color to expression. Verbally explain the tone/mood of images Observe, select and utilize a variety of ideas and subject matter in creating original works of art 	 Discuss characteristics and mood of famous portraits. Discuss qualities of artwork that conveys a mood. Use literature to provide examples of emotion.

Content for Kindergarten	Examples	Supportive Practices
 K. Recognize and use fundamental vocabulary in music L. Recognize and use fundamental vocabulary in theatre arts 	 The learner will: Understand and use music vocabulary - fast/slow (tempo); high/low (pitch); short/long (duration); soft/loud (volume); strong/weak beat (rhythm). Understand and use vocabulary to describe types of voices: singing, speaking, whispering, and shouting. Understand and use theatre arts vocabulary -main characters, story, setting, performance, performer, and role play. 	 The teacher will: Use and model appropriate music vocabulary when teaching. Provide opportunities for learners to practice different types of voices. Use a variety of instrumental and environmental examples in defining vocabulary. Use appropriate theatre vocabulary as children create plays and performances. Use theatre vocabulary to discuss stories and poems
 M. Recognize and use fundamental vocabulary in visual arts N. Identify patterns in dance 	 Understand and use visual arts vocabulary - color, shape, line, and texture. Analyze artwork by identifying the color, shape, line or texture used. Name colors, shapes, kinds of lines, and textures, and sort pictures/objects accordingly. 	 Use appropriate visual arts vocabulary when describing artwork. Provide a variety of examples of art. Use literature, illustrations, and other artworks to model vocabulary.
	 Create a dance sequence with a beginning, middle, and end. Create repetitive motions for songs, rhymes, fingerplays, chants Create movement patterns. 	 Model and describe patterns and sequences used in dances. Relate patterns in dance to patterns in mathematics .Provide opportunities for learners to sing songs and recite poems, chants with repetitive motions.

Content for Kindergarten	Examples	Supportive Practices
O. Identify rhythm and patterns in music	The learner will:	The teacher will:
O. Identify myunn and patterns in music	Identify the rhythm of a know song and clap the pattern as the song is sung.Play rhythms with instruments.	 Clap and describe the rhythm and pattern of a song Play music with various rhythms Relate patterns in music to patterns in mathematics
P. Identify word patterns in theatre arts	Copy rhythms modeled by the teacherParticipate in shared readings	Provide instruments for rhythm explorationProvide a variety of examples of art.
Q Identify color, line, and texture patterns in visual arts	Identify repeated lines in textParticipate in plays with patterned script	Point out repetition of linesRead stories and plays with word patterns
R. Identify the function and analysis of	 Analyze and describe artwork by defining the color, line, and texture patterns used 	 Model how to look at a particular picture and identify the color, line, and texture patterns
rehearsals and practice sessions in dance, theatre arts, and visual arts	• Create art with color, line, and texture patterns	 Tape practice sessions and rehearsals over time and discuss how practice fosters development
	 Understand the perm "practice" and what it means in dance, theatre arts and in creating visual arts. 	• Facilitate a class discussion abut practice and rehearsal
	 Understand that practice sessions and rehearsals help better the performance. 	
	 Self-analyze performance and the need for further practice 	

ARTS AND HUMANITIES 9.1 Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts		
Content for Kindergarten	Examples The learner will:	Supportive Practices The teacher will:
 S. Identify and perform safety issues in dance and theatre arts T. Identify and perform safety issues in music and visual U. Identify school and community performances, and exhibitions for dance, music and theatre V. Identify school and community visual arts exhibitions X. Identify how technologies in the arts help create performances and exhibitions 	 Know how to move safely Know how to warm-up or stretch Use appropriate spacing and proximity to others and objects Use props appropriately Handle and care for musical instruments and art tools with safety Identify the audience and the performers Understand the roles of the audience and the performers Select pieces of art work for display in school hallways Show respect for artwork exhibited by other students throughout the school 	 Provide spacious locations for dance. Model appropriate warm-up an stretches Demonstrate safety in terms of space and dance surfaces Model appropriate handling of props Model safe care, handling and use of musical instruments and art tools Take class to school assemblies and programs Discuss the roles of the audience and the performers Provide families information about community performances Model how to self-select a best piece of artwork Discuss the process of observing the artwork of to others Point out artwork in hallways, offices, and on field trips Describe common themes and patterns that are repeated within each art form

FINAL DRAFT - August, 2006 ARTS AND HUMANITIES

9.2 Historical and Cultural Context of Works in the Arts

Third Grade Standards:

- Analyze a work of art from its historical and cultural perspective
- Identify and explain common themes in the arts, such as pattern, rhythm and color

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten A. Analyze a work of art from its historical and cultural perspective B. Identify common themes and patterns in works in the arts	Examples The learner will: • Analyze a painting to decide if it is about the world today or another time • Analyze a painting to decide if it is similar to one's own culture. • Point out differences and characteristics of represented time period or culture. • Know and identify themes in works in the arts (e.g. singing, clapping, drawing, acting, and dancing patterns).	Supportive Practices The teacher will: • Support learners in determining if a painting or illustration is present day or of another time. • Lead students in discussion about how the art portrays the time period or culture. • Discuss appropriate behavior while viewing art • Describe common themes and patterns that are repeated within each art form (e.g. color, designs, movements, lyrics and rhythms).

9.3 Critical Response to Works in the Arts

Third Grade Standards:

- Recognize critical processes used in the examination of works in the arts and humanities
- Know that works in the arts can be described by using the art's elements, principles, and concepts
- Know classification skills with materials and processes used to create works in the arts

Content for Kindergarten	Examples	Supportive Practices
A. Create a critical statement about works of art	 The learner will: Analyze by comparing and contrasting different works of art. Evaluate and form judgments about artwork. 	 The teacher will: Model and describe analyzing two works of art being cognizant of language that is used Facilitate class discussions during which works of art are analyzed.
B. Identify the elements, principles, and concepts used to describe works in the arts	 Use the elements, principles, and concepts when describing the arts (in music- identify repetition, volume, rhythm) (in art- identify line and color) (in dance- identify jumps and movements) (in theatre arts- identify characters, setting, and action). 	 Model identification of elements, principles, and concepts in music, art, dance, and theatre arts.
C. Make categories or classifications about works in the arts	 Group similar works in the arts by sound, movement, instrument, texture or observation. Analyze book illustrations to determine if the illustrator is the same. 	 Demonstrate and describe classification of works in the arts by categories (e.g. sound, movement, instrument, texture or observation).

ARTS AND HUMANITIES

9.4 Aesthetic Response to Works in the Arts

- Know how to respond to a philosophical statement about works in the arts and humanities
- Know how to communicate an informed individual opinion about the meaning of works in the arts
- Recognize that choices made by artists regarding subject matter and themes communicate ideas through works in the arts and humanities

Content for Kindergarten	Examples	Supportive Practices
A. Make a statement about works in the arts based on prior knowledge and how the art affects emotion	 The learner will: Respond to works of art by expressing feelings (e.g. "this makes me feel happy because"; "this makes me feel sad because"). Show respect for the responses of others to a work of art. 	 The teacher will: Model personal opinions about works of art. Encourage learners to respond to works of art by expressing emotions that the work evokes. Remind learners that there are many ways of seeing the same thing. Encourage children to think about how their response will affect others.
B. Communicate an individual opinion about the meaning of works in the arts	 Start statements about works of art using "I." Know how to show appreciation of works of arts. 	 Model appropriate "I" statements. Model appreciation of works in the arts through notes, clapping and saying thank-you.
C. Begin to understand that artists make choices in all areas of arts	 Make choices about tools, instruments, mediums, movements, etc. for creative activities and performances. Analyze and describe why he/she selected certain tools, instruments, mediums, movements, etc. 	 Model the decision making process that artists and performers use for creative activities and performances. After reading a favorite story or poem, have students break into four groups. Each group will use a different art form to tell all or part of the story – visual arts, theatre arts, music, or dance.

FINAL DRAFT – August, 2006

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Family-School-Community Partnerships





	<u>Standard</u>	<u>Page</u>
P1	Parenting	41
P2	Communication	42
P3	Volunteering	43
P4	Learning at Home	44
P5	Decision Making	45
P6	Collaborating with the Community	46

Kindergarten programs that foster home-school-community connections assure students' school success. Partnerships that create seamless experiences support Kindergarteners' learning. The link is established when parents and school staff share information about the child, family, home and school culture.

FINAL DRAFT – August, 2006

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1. Parenting

Quality kindergarten programs will support families with parenting and child rearing skills.

School To support children, families, and communities	Family To support children the family can:	Community To support children, families, and schools the
the school will:		community can:
A. Assist families with parenting and child rearing skills (housing, health, nutrition, clothing, and safety). Hold parenting classes and	 Exhibit interest in increasing knowledge and skills in parenting and child rearing. 	 Provide a variety of parenting and child rearing resources to families.
informational meetings	• Acquire knowledge of child development.	 Provide a variety of resources concerning child development
B. Assist families in understanding child development Distribute brochures on child development	• Establish home conditions that support children as kindergarten learners.	 Provide a variety of resources concerning the establishment of home conditions that support children as kindergarten learners
C. Assist families in setting home conditions that support children as kindergarten students.	 Provide information and participate in activities to help schools understand the diversities that exist among children and families. 	 Offer resources that help schools understand the diversities that exist among children and
D. Provide information and activities to help schools understand children and families.	 Complete questionnaires and attend interviews at school 	families.Gather brochures from community service organizations
E. Demonstrate an understanding of the diversity of family structures, styles, and cultural traditions.		6

2. Communication

Quality kindergarten programs will effectively communicate with families about school programs and student progress through school to home and home to school communications.

School	Family	Community
To support children, families, and communities the school will:	To support children the family can:	To support children, families, and schools the community can:
A. Communicate with families about school programs, assessments, children's progress, courses, activities, programs, etc.	 Engage in communications with school about programs, assessments, children's progress, courses, activities, programs, etc 	 Provide a variety of resources to enhance two- way communication between home/school/communities.
B. Promote two-way communication through conferences, memos, notices, report cards, news letters, phone calls, and computerized messages.	 Participate in two-way communication through conferences, memos, notices, report cards, news letters, phone calls, and computerized messages. 	 Participate in frequent two-way communication with families and schools.
C. Provide print and non-print communications that are clear and understandable to all families.	 Offer suggestions to improve the design and content of communications between school and home. 	
D. Obtain ideas from families to improve the design and content of communications.		
E. Provide two-way channels of communication for questions and interactions.		
F. Create an inviting environment for families to engage in open dialogue.		

3. Volunteering

Quality kindergarten programs will improve recruitment, training, work, and schedules to involve families as volunteers and audiences at the school or in other locations to support students and school programs.

School To support children, families, and communities the school will:	Family To support children the family can:	Community To support children, families, and schools the community can:
A .Expand recruitment, training, work, and schedules to involve families as volunteers and audiences at the school or in other locations (community, school, home) to support students and school programs. B. Invite parents frequently to assist in classroom special projects and events	 Assist administrators, teachers, parents, and students as aides, chaperones, lecturers, and tutors when possible. Assist with school programs. Attend assemblies, award presentations, celebrations, performances, sports events, and other events. Support school goals and children's learning. 	 Offer a variety of resources to assist schools and families in their role of encouraging parents to serve as volunteers.

4. Learning at Home

Quality kindergarten programs will involve families with their children in at-home interactive learning activities that support kindergarten skills and concepts.

School	Family	Community
To support children, families, and communities the school will:	To support children the family can:	To support children, families, and schools the community can:
A. Involve families with their children in learning activities at home, including interactive learning activities and other curricular related activities and decisions.	 Participate with children in interactive learning activities at home to support kindergarten skills and concepts. 	 Provide a variety of resources to support schools and families in their role as guides and co-learners of student learning at home.
B. Provide information concerning kindergarten skills and concepts.		 Use local community, state and federal printed resources to assist families
C. Stress that help at home is to support, encourage, and guide children's acquisition of kindergarten skills and concepts.		
D. Design and implement interactive learning activities for which students take responsibility to discuss important class work and ideas with their families.		
E. Create interactive activities that students share and discuss with others at home.		
F. Provide information concerning other skills and talents.		

5. Decision Making

Quality kindergarten programs will include families as participants in school decisions, governance, and advocacy through PTA/PTO, school councils, committees, action teams, and other parent organizations.

School To support children, families, and communities the school will:	Family To support children the family can:	Community To support children, families, and schools the community can:
A. Encourage involvement through PTA/PTO membership, participation, leadership, representation, advisory councils, school improvement teams, Title I councils, school-site management teams, and other independent school advisory groups.	 Become involved through PTA/PTO membership, participation, leadership, representation, advisory councils, school improvement teams, Title I councils, school- site management teams, and other independent school advisory groups. 	 Provide a variety of resources for families and schools to both encourage and participate as shared decision makers. Keep families informed of opportunities to be participants in school decisions.
B. Include parent leaders from all ethnic, racial, socio-economic, and other groups in the schools to serve as decision makers.	 Participate in leadership training. 	participants in school decisions
C. Offer training for parent leaders to develop leadership skills.	 View decision making as a shared process of taking action for the successful achievement of common goals for school improvement and 	
D. Understand decision making is a shared process of taking action for the successful achievement of common goals for school improvement and student success.	common goals for school improvement and student success.	

6. Collaborating with the Community

Quality kindergarten programs will coordinate community resources and services for students, families, and the school with businesses, agencies, and other groups, and provide services to the community. Special attention will be given to facilitate successful transitions from one setting to another.

School To support children, families, and communities the school will:	Family To support children the family can:	Community To support children, families, and schools the community can:
A. Contribute to the community through service learning and special projects aimed at sharing talents and solving local problems.	 Contribute to the community through service learning and special projects aimed at sharing talents and solving local problems. 	 Contribute to students, families, and schools through partnerships involving businesses, community agencies, cultural groups, health services, recreation, and other groups and
B. Work to solve problems of turf, responsibilities, goals, and funds.	 Use knowledge of local resources to increase personal skills and talents or to obtain needed 	programs.
C. Inform all families and learners about community programs and services, and ensure equal opportunities for services and participation.	personal skills and talents or to obtain needed services for family.	• Work to solve problems of turf, responsibilities, goals, and funds.
D. Use community resources for improving curriculum and instruction.		 Provide multiple avenues for informing families and students about community programs and services, and ensure equal exportinities for services and perticipation
E. Employ strategies that enable students to learn about and contribute to the community.		opportunities for services and participation.
F. Facilitate transitions between preschool and kindergarten and between kindergarten and grade one.		

Health, Safety and Physical Education





<u>Standard</u>	<u>Page</u>
Concepts of Health	49
Healthful Living	51
Safety and Injury Protection	53
Healthy Living	55
Concepts, Strategies and Principles	57
of Movement	
	Concepts of Health Healthful Living Safety and Injury Protection Healthy Living Concepts, Strategies and Principles

Children's learning is affected by their physical health and well-being. Kindergarten students need to learn about their bodies and the behaviors necessary to protect them and keep them healthy as well as have opportunities to develop basic body control, and expand their developing motor skills while increasing strength, endurance and flexibility. Health and safety activities must be integrated throughout the day as teachers model healthy and safe practices and promote healthy lifestyles for children.

FINAL DRAFT – August, 2006

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10.1 Concepts of Health

Third Grade Standards:

Identify and describe the stages of growth and development

• Identify and know the location and function of the major body organs and systems

•Explain the role of the food guide pyramid in helping people eat a healthy diet

•Know age appropriate drug information

• Identify types and causes of common health problems of children

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
 A. Identify and describe ways individuals grow physically, mentally, socially, and emotionally B. Identify and describe unique ways individuals grow physically, mentally, socially, and emotionally 	 Participate in interactive activities that show how people grow and change. Participate in interactive activities that highlight unique ways people grow and change. Describe ways in which people are physically the same and different. 	 Read fiction and non-fiction that describe how individuals grow and develop. Provide interactive activities (e.g., discussions, puppetry, picture cards) that highlight ways individuals grow and develop (physically, mentally, socially, and emotionally). Facilitate class discussions highlighting the uniqueness of people.
C. Identify and locate basic body parts and body organs	 Locate basic body parts on one's body or a classmate's 	 Create interactive activities (e.g., songs, building models) to teach body part recognition. Engage in daily sensorimotor activities as part
D. Begin to develop an understanding of the basic function of body parts and body organs	 Describe the basic function of body parts and body organs. 	 of daily routine (use CDs , tapes or self) Read non-fiction that name and describe the function of body parts and organs. Converse with learners

10.1 Concepts of Health (continued)

Content for Kindergarten	Examples	Supportive Practices
E. Describe why the body needs foodF. Recognize that there are a variety of foods that can be grouped	 The learner will: Describe the concept of balancing energy intake eating) and energy output (physical activity). Sort food cards into categories. 	 The teacher will: Read fiction and non-fiction books that focus on food choices and the role of food in keeping one healthy. Expose learners to various foods.
G. Develop an understanding of the importance of eating healthy and the role of food in keeping the body healthyH. Develop an understanding of the importance of drinking water to keep the body healthy	 Classify foods as nutritious or not nutritious. Identify nutritious snacks and beverages. Sort real food 	 Facilitate class discussions about maintaining a healthy body through the foods and beverages we drink. Provide healthy snacks and beverages. Provide an assortment of foods
I. Begin to know how to properly use medicine (e.g., who takes medicine, who gives medicine)	 Identify grown-ups who can give him/her medicine. Demonstrate how to say no to drugs. Identify healthy/unhealthy risk-taking behaviors (e.g., smoking, alcohol). 	 Facilitate class discussions pertaining to healthy risks (trying out for a sport team) and unhealthy risks (taking someone else's medicine). Read literature related to decision-making, saying no, healthy choices or risk-taking.
J. Identify childhood illnesses	 Identify signals of illnesses. Know that germs can make someone ill. Identify ways that germs can spread. 	 Facilitate class discussions pertaining to the spreading of germs. Read literature related to getting and being sick.

10.2 Healthful Living

- Identify personal hygiene practices and community helpers that promote health and prevent the spread of disease
- Identify health-related information
- Identify media sources that influence health and safety
- Identify the steps in a decision-making process
- Identify environmental factors that affect health

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Know the relationship between personal health practices and being healthy	 Participate in class discussions about things one can do to stay healthy and prevent illnesses. 	 Read literature related to personal health practices, preventing illness, and community helpers.
B. Identify ways to prevent illness	 Identify healthy and unhealthy personal health practices (e.g., the spreading of germs, taking drugs, etc.). 	• Create learning centers that focus on health hygiene practices (e.g., brushing teeth, flossing teeth).
C. Know and use personal health practices	 Role-play, with props, health care providers (e.g., nurse, doctor, police, family, and physical education 	Create interactive tasks on how to prevent the spread of germs and illness.Provide opportunities and materials for children
D. Identify people that help to keep us healthy and safe	teacher).	 to role-play with sample props. Model good health practices (e.g. hand-washing, covering mouth during cough).

10.2 Healthful Living (continued)

Content for Kindergarten Examples		Supportive Practices	
	The learner will:	The teacher will:	
E. Identify common health related signs, symbols, and products that help keep the body healthy	 Role-play, with props, using health care products and signs. Describe and tell how which products help keep one's body healthy. 	 Provide opportunities and materials for learners to match health care products to proper use. Invite community health care providers into the classroom to describe what they do and the tools they use. 	
F. Know that what we hear and what we see affects our health and safety	 Identify different media sources that influence our choices (e.g., TV, video, advertisements, commercials). 	 Talk with learners about how different media sources, e.g. TV, video, advertisements, and commercials influence our choices. 	
G. Know, demonstrate, and identify the steps of a decision- making process	 Explain when to ask for help in the decision-making process. Work in a cooperative manner with classmates to make a decision. Know the difference between a safe or healthy decision and an unhealthy or dangerous decision. Predict the outcome of a decision. 	 Read literature related to making decisions and safe choices. Create scenarios and guide learners through the decision-making process. Engage learners in predicting outcomes of decisions. 	
H. Identify things in the environment that can be harmful.	 Describe things in the environment that can be harmful (e.g., loud noise, tobacco smoke, pollution, temperature, insects). Describe ways to protect oneself from harmful factors in the environment. 	 Engage learners in class discussions to describe ways to protect oneself from harmful factors in the environment. Read literature related to the theme of environment and health. Engage learners in interactive activities to first identify the harmful factor and then to find ways of protection. 	

10.3 Safety and Injury Prevention

Third Grade Standards:

Identify types and causes of common health problems of children

Recognize safe/unsafe practices in the home, school, and community

Recognize emergency situations and explain appropriate responses

• Recognize conflict situations and identify strategies to avoid or resolve

• Identify and use safe practice in physical activity settings

Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
A. Know and demonstrate the importance of rules to ensure safety	 Know fire safety practices. Know and demonstrate what to do when the fire alarm sounds. Know ways to stay safe at home. Know safe ways to answer the phone. Know how to be safe when walking, riding bicycles, and riding in vehicles. Know safety practices when playing outdoors, including on a playground. Know safety practices regarding animals. Know what to do in bad weather. Know how to be safe from a stranger. Understand what a bully is and know how to deal with one. 	 Model and discuss the importance of safety rules and practices. Read literature about strangers, bullies, and safety rules for public places. Design interactive tasks that will provide learners opportunities to practice safety rules and behaviors. 	

10.3 Safety and Injury Protection (continued)

Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
B. Recognize an emergency situation	 Identify situations as emergency or not an emergency Describe ways to respond to emergencies (e.g., get an adult, call 911). Work cooperatively with classmates to show how to respond to emergencies. 	 Provide opportunities and props for learners to role play responding to emergencies and first aid situations. Provide opportunities for learners to make reminders (magnet, sign) to place near the phone for placing an emergency phone call. Read fiction and nonfiction that describes emergency situations, what to do, and how to respond safely. 	
C. Recognize conflict situations and identify strategies to resolve them	 Identify conflict situations. Work to solve conflict without physical actions. Use verbal and non-verbal communication skills used in problem solving (e.g., eye contact, "I" statements, tone, pace of voice, body language). 	 Read fiction and nonfiction that addresses conflict and/or bullying situations. Create home, school, neighborhood, etc. scenarios for learners to role play using appropriate strategies to solve conflicts. Facilitate classroom discussions to create classroom rules to resolve conflicts. 	
D. Identify and demonstrate safe practices in physical activity	 Know and demonstrate the difference between safe and unsafe practices. Avoid actions that might lead to accidents. Follow safe practices in all school areas. Utilize safe practices when participating in physical activities. 	 Read fiction and nonfiction that addresses the safety in physical activity. Facilitate class discussions about the use of safety practices. Create an environment in which all learners feel safe. 	

10.4 Physical Activity

- Identify and engage in physical activities that promote physical fitness and health
- Know the positive and negative effects of regular participation in moderate to vigorous physical activities
- Know and recognize changes in body responses during moderate to vigorous physical activity
- Identify likes and dislikes related to participation in physical activities
- Identify reasons why regular participation in physical activities improves motor skills
- Recognize positive and negative interactions of small group activities

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Recognize and demonstrate appropriate physical activities that promote fitness and health	 Participate in physical activities that promote fitness and health during outdoor time. Keep a log of physical activities that promote fitness and health while at home. 	 Provide inside and outside opportunities for learners to engage in physical activities that promote health. Facilitate class discussions that focus on how physical activity improves health. Encourage learners to participate in physical activities. Read related fiction and nonfiction books.
B. Recognize the physiological effects of moderate to vigorous physical activity on the body (e.g., fast heart rate, heavy or increased breathing, sweating)	 Describe physical differences felt after participating in moderate to vigorous physical activities (e.g., fast heart rate, heavy or increased breathing, sweating). Compare changes that occur in the body for different physical activities. 	 Provide opportunities for learners to compare and contrast different types of physical activities on their body (e.g., fast heart rate, heavy or increased breathing, sweating). Facilitate classroom discussions related to the physiological effects of different types of exercises.

10.4 Physical Activity (*continued*)

Content for Kindergarten	Supportive Practices	
	The learner will:	The teacher will:
C. Identify physical activities that are liked and disliked	 Identify physical activities that are liked and describe why. Identify physical activities that are disliked and describe why. 	 Provide a variety of physical activities. (hop, run, skip, jump, gallop,skate, balance,slide) Provide learners opportunities to reflect on physical activities. Have learners evaluate whether the activity was liked or disliked and to describe why.
D. Know that appropriate practice and regular participation positively impacts motor skills	 Try new gross and small motor activities. Participate in gross and fine motor physical activities. Continue to practice new gross motor and fine motor skills even when the skill becomes difficult. 	 Facilitate group conversations pertaining to the importance of practice and regular participation for improving motor skills. Provide opportunities for learners to practice the same skill in different ways.(games, during math and language activities)
E. Recognize positive and negative interactions of small group activities	 Work cooperatively and productively with a partner or small group to complete a task and/or solve a problem. 	 Design activities that facilitate partner and small group work. Design activities that promote sharing, taking runs, cooperation, task persistence and listening skills. Facilitate class discussions highlighting positive group behaviors. Facilitate class discussions problem solving fictitious challenging small group interactions.

10.5 Concepts, Principles & Strategies of Movement

Third Grade Standards:

Recognize and use fundamental motor skills and movement concepts

•Recognize and describe the concepts of motor skill development using appropriate vocabulary

•Know the function of practice

Identify and use principles of exercise to improve movement and fitness activities

•Know and describe scientific principles that affect movement and skills using appropriate vocabulary

Recognize and describe game strategies using appropriate vocabulary

Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
A. Recognize and use fundamental motor skills and movement concepts	 Participate in all locomotor and nonlocomotor/stability skills (e.g., walking, running, hopping, skipping, turning, twisting, bending, 	 Provide opportunities for learners to participate in a variety of motor activities (large/small- sway, stretch, pull, push, bend, squat) 	
B. Know that relationships refer to the ways the individual, while moving, relates with other people and the environment	 balancing, swaying, stretching, pulling, pushing, etc.). Recognize and demonstrate space awareness in and out of the classroom. working cooperatively and productively with a partner or small group to solve a mathematical strengthere. 	 Create opportunities for learners to participate in a variety of rhythmical, expressive and creative dance experiences and educational gymnastics (tapes, CDs, paint/draw to music) Use different types of equipment (long & short handled bats & rackets; varied ball sizes, etc.) in order for children to have the option of choice. 	
C. Know, recognize and use demonstrate relationship movement concepts (e.g., narrow, wide, over, under, leading, following)	 problem . Use appropriate pencil grip and make smooth cuts with scissors 	 Provide opportunities for exploration and discovery of the range of possibilities within a skill theme (i.e., ways to toss and catch balls, bean bags, other objects) Utilize ongoing formative assessment. Infuse moderate to vigorous movement (i.e., infuse fitness into child-centered activities) into learning experiences. 	

10.5 Concepts, Principles & Strategies of Movement (continued)

Content for Kindergarten	nt for Kindergarten Examples	
	The learner will:	The teacher will:
D. Understand that people may differ even though they are the same age	 Listen to instructions, following class rules, procedures and safe practices. 	 Provide instruction on motor skill development that is developmentally appropriate.(hop, skip, jump rope, gallop, balance beam)
E. Know that practice and experience make you better at motor skills	 Accept all teammates and playmates regardless of race, gender, ability, disability or other differences. 	 Repeat the critical elements during a lesson (i.e., focus).
F. Know that when you first begin to learn a motor skill, you will not be good at it	 Work cooperatively and productively with a partner or small group to solve a problem until completion of the task. 	 Provide opportunities for students to give feedback to partners.(role play positive
G. Know, recognize, and demonstrate that some skills are used in many different activities	 Respond to teacher-initiated questions. 	comments)Assess student work based on the critical
H. Understand that critical elements are cues	 Complete assessments. 	elements of a skill (e.g., through a drawing, student demonstration).
that help students to learn a skill or to perform better	 Use correct vocabulary. 	 Create an environment in which children feel safe to try new activities.
I. Understand that feedback lets us know how we are doing on a task and is helpful in improving a skill		

10.5 Concepts, Principles & Strategies of Movement (*continued*)

Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
J. Know and demonstrate that appropriate practice helps to improve skillsK. Know that the amount of time a person practices affects the ability to perform the skill	 Actively engage in practice opportunities during class and outside of school. Actively engage in practice opportunities outside of school. Practice specific skills as assigned until the teacher signals the end of practice. 	 Provide many practice opportunities. Encourage students to practice skills during class and outside of school. Design creative practice opportunities that are varied, motivating, and novel, therefore, motivating children to continue practicing. Provide instruction on the function of practice. (Tie into first time riding bicycle or playing a specific game) 	
L. Know that how often we exercise affects how we improve	 Actively participate in all activities. 	• Provide instruction on the principles of exercise.	
M. Know and demonstrate that frequency, intensity, and duration of exercise affects how we improve	 Work cooperatively with a partner or small group to solve a problem until completion. Listen to instructions, following class rules, procedures and safe practices. 	 Design learning experiences that focus on each of the principle components. Use music to motivate children to move for longer periods of time. 	
N. Know that how hard we exercise affects how we improve	 Continue to try when an activity becomes difficult. 	 Have children and guardians/families keep an activity calendar (i.e., How often do I participate in activity?) Learners do at home 	
O. Know that how long we exercise affects how we improve		 Encourage students to participate in physical activity outside of school.(Find out who is in sports? Who plays? 	
P. Know that what kind of exercise is used affects how we improve		59	

HEALTH,	SAFETY	AND PHYSICAL	EDUCATION
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10.5 Concepts, Principles & Strategies of Movement (continued)

Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
Q. Know and demonstrate that gravity affects movement and skills	 Actively participate in all learning experiences. Listen to instructions, following class rules, 	 Provide developmentally appropriate instruction related to scientific principles.(Talk to your school PE instructor) 	
R. Know and demonstrate that force affects movement and skills	procedures and safe practices.Use proper vocabulary.	 Design developmentally appropriate learning experiences in which children explore gravity, force and balance. 	
S. Know and demonstrate how to absorb force	 Listen to instructions, following class rules, procedures and safe practices. 	 Provide students critical elements related to scientific principles. 	
T. Know and demonstrate that balance affects movement and skills	• Accept all teammates and classmates regardless of race, gender, ability, disability or other differences.	 Provide educational experiences that emphasize cooperative (partner & small group) games. 	
U. Know how to maintain balance	 Actively participate in all learning experiences. 	 Provide educationally appropriate games that 	
V. Know and demonstrate what it means to move to an open space	 Work in a diverse group setting without interfering with others. 	 Design educational experiences that emphasize 	
	 Work cooperatively with a partner or small group to solve a problem until completion. 	"moving in and to an open space."Select, design and modify games to maximize	
W. Model and understand the purpose of rules		the attainment of specific learning objectives.	

Mathematics

Pennsylvania's Kindergarten Standards



	<u>Standard</u>	<u>Page</u>
2.1	Numbers, Number Systems and Relationships	63
2.2	Computation and Estimation	65
2.3	Measurement and Estimation	67
2.4	Mathematical Reasoning and Connections	68
2.5	Mathematical Problem Solving and	
	Communication	69
2.6	Statistics and Data Analysis	70
2.7	Probability and Predictions	71
2.8	Algebra and Functions	72
2.9	Geometry	74
2.10	Trigonometry	76
2.11	Calculus	77

Mathematical learning in Kindergarten relies on children's opportunities to describe and explore the relationships of objects and materials. Students' knowledge and understanding of mathematics is built through children's active manipulation in the areas of numbers and operations; patterns and functions; algebra; geometry; measurement; data analysis and probability. Teachers facilitate mathematical learning when they encourage children to problem solve, reason, communicate, connect and represent.

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2.1 Numbers, Number Systems and Number Relationships

- Count using whole numbers (to 10,000) and by 2's, 3's, 5's, 10's, 25's and 100's.
- Use whole numbers and fractions to represent quantities.
- Represent equivalent forms of the same number through the use of concrete objects, drawings, word names and symbols.
- Use drawings, diagrams or models to show the concept of fraction as part of a whole.
- Count, compare and make change using a collection of coins and one-dollar bills.
- Apply number patterns (even and odd) and compare values of numbers on the hundred board.
- Use concrete objects to count, order and group.
- Demonstrate understanding of one-to-one correspondence.
- Apply place-value concepts and numeration to counting, ordering and grouping.
- Estimate, approximate, round or use exact numbers as appropriate.
- Describe the inverse relationship between addition and subtraction.
- Demonstrate knowledge of basic facts in four basic operations.

Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
A. Count using whole numbers (to 100) by ones and tens (rote counting)	 Practice group and individual rote counting experiences (daily counts, objects in the classroom, counts children in class). 	 Provide opportunities and support learner's counting during daily everyday activities. Model, using the appropriate 	
B. Use concrete objects to represent quantities up to and including 20	 Represent a given number up to twenty with manipulatives. Use manipulatives to demonstrate one-to-one 	language/vocabulary, the process of counting with one-to-one correspondence, and write the number signifying that amount.	
C. Represent equivalent forms of the same number through the use of concrete objects and drawings up to and including 20	 Examine an object and successfully split it in half. 	 Provide opportunities and support learners matching and counting objects (passing out snacks, counting manipulatives, learner's jacket, classroom materials, lunchboxes). 	

2.1 Numbers, Number Systems and Number Relationships (continued)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
D. Use concrete objects to separate a set into two equal parts using the terms half and whole	 Analyze a set of objects and successfully divide them in half. 	 Provide opportunities and support learners counting with one-to-one correspondence during classroom activities.
E. Use concrete objects to group into sets of ten	 Create sets of ten with manipulatives. 	 Provide opportunities and support learners using a variety of math manipulative(blocks, pattern blocks, unifix cubes, beans, buttons,
F. Use concrete objects to demonstrate understanding of one-to-one correspondence up to and including 20	 Count a set of manipulatives to match a given number. 	 Draw representations to explore one-to-one correspondence.
G. Count, read, and write whole numbers 0 to 20	 Count manipulatives and establish a number- to -object relationship. Use manipulatives to find before, after, and between on a number line. 	 Provide opportunities, and support learners counting, reading, and writing numbers during various classroom activities (use various tactile materials).
H. Identify numbers before, after, and between 0 – 20	 Make a reasonable estimation of how many objects are in a container. Observe the different characteristics of the 	 Provide opportunities and support learners creating groups of ten during classroom activities(Popsicle sticks, baggies of objects).
I. Estimate using concrete objects up to 100	 penny, nickel, dime and quarter and identify them by name and their given value. Count by ones and tens to identify an amount of money. 	 Model, using the appropriate language/vocabulary, the processes of separating sets into equal parts(divide). Use correct mathematical language (half,
J. Identify pennies, nickels, dimes, and quarters by name and value	 Write whole numbers using various tactile materials as well as conventional writing instruments 	 Ose correct manematical language (nan, whole, equal/equivalent parts). Model, using the appropriate language, the processes of creating and naming patterns.
K. Count pennies and dimes		 Provide and support learners during a variety of experiences with patterns (visual, auditory, tactile, kinesthetic).

2.2 Computation and Estimation

- Apply addition and subtraction in everyday situations using concrete objects.
- Solve single- and double- digit addition and subtraction problems with regrouping in vertical form.
- Demonstrate concept of multiplication as repeated addition and arrays.
- Demonstrate concept of division as repeated subtraction and as sharing.
- Use estimation skills to arrive at conclusions.
- Determine the reasonableness of calculated answers.
- Explain addition and subtraction algorithms with regrouping.

Content for Kindergarten	Examples	Supportive Practices
A. Make estimates of objects in a set up to and	The learner will:	The teacher will:
including 20	Estimate how many objects are in a group.Check estimate by counting the number of	 Model using the appropriate language/vocabulary the process of
B. Make an estimation and verify by counting	objects.	estimation(less, more, almost, close, nearly
	Use counters to make sets up to ten.Use counters to solve simple math stories	 Provide opportunities and support learners in estimating a quantity (students bring objects from home)
C. Represent addition and subtraction in everyday situations using up to ten concrete objects	 Draw pictures of two sets of objects, count them together, and explain the process of joining the sets (how many objects are in each 	 Provide support for learners estimating and counting the number of objects
D. Use concrete objects to explain the results of	group and how many were all together when the two sets were joined.)	 Model, using the appropriate language/vocabulary, the processes of adding,
joining and separating sets of objects in quantities up to and including ten	 Explore the concepts of addition and subtraction by joining and separating sets. Combine two sets of objects (up to five) and find the sum 	 subtracting, and dividing sets. Create real life addition and subtraction problems for learners to solve by using pictures and/or concrete manipulatives
	 Separate a pile of counters into two equal piles. Use counting manipulatives to create two sets 	 Identify everyday classroom opportunities that involve the operation of addition and/or subtraction.
	of the same number, then count them to determine the sum.	 Provide opportunities, and support learners using counters or objects to make and count sets(small group, individual, large group)

2.2 Computation and Estimation *(continued)*

Indicator	Examples	Supportive Practices
 E. Separate concrete objects into equal groups F. Determine the sum of the same two one-digit numbers using concrete objects and/or pictures (3+3=6) 	 The learner will: Separate a pile of counters into two equal piles. Use counting manipulatives to create two sets of the same number, then count them to determine the sum. Create in a math journal or wipe off board the joining , subtracting and dividing of sets of objects after teacher models Use mathematical language to explain their work(equals, sum, difference, add, subtract, less, more, equal, same) 	 The teacher will: Identify everyday classroom opportunities that involve the operation of addition and/or subtraction. Provide opportunities, and support learners using counters or objects to make and count sets. Provide opportunities, and support learners separating sets of objects and/or counters into two equal groups. Create addition problems that join two sets of the same amount of objects (use flannelboard and concrete objects). Encourage and support learners in explaining how they applied their skills during mathematical tasks. Provide opportunities for learners to explore and apply understanding of joining, subtracting, and dividing sets in learning centers

2.3 Measurement and Estimation

- Compare measurable characteristics of different objects on the same dimensions (time, temperature, area, length, weight, capacity, and perimeter)
- Determine the measurement of objects with nonstandard and standard units (e.g., US customary and metric)
- Determine and compare elapsed times
- Tell time (analog and digital) to the minute
- Determine appropriate unit of measure
- Use concrete objects to determine area and perimeter
- Estimate and verify measurements
- Demonstrate that a single object has different attributes that can be measured in different ways (e.g., length, mass/weight, time, area, temperature, capacity, perimeter)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Understand the spatial concepts of over, under, beside, in, out, around, on and between, above, top, bottom,	 Engage in teacher-led activities, such as Simon Says, that use spatial words (example: "stand in the circle"). 	 Incorporate spatial concept words into directions and sensorimotor activities throughout the day.
	 Use positional vocabulary to describe the relative positions of objects ("The book is on the chair.") ("I am in front of Amanda."). 	 Incorporate comparative and spatial vocabulary to compare, locate, and identify positions in space.
B. Compare two objects using direct comparison	 Collect two classroom objects and compare them by a defined characteristic (length, height, weight). 	 Use gross motor activities to help children understand and internalize comparative and positional words and phrases.
C. Estimate and measure objects using nonstandard units	• Explore objects to determine which will make a good measuring tool. (classroom objects like paper clips, unifix cubes, new pencils, coins)	 Emphasize the daily use of positional words.(in daily conversation, in morning message) Model the processes of measurement using standard and nonstandard tools and units while using the appropriate language/vocabulary.
		 Provide interesting objects for comparison.

2.3 Measurement and Estimation (continued)

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten D. Determine the length and height of objects with nonstandard units (e.g. hands, shoe lengths, jelly beans, paper clips) E. Describe the instruments used for measuring time, length, weight, volume, and temperature	 Examples The learner will: Use multiple units of the same size (nonstandard units) to measure (paperclips, unifix cubes). Use nonstandard units to estimate the length of and object. Investigate the different ways to measure the various attributes of an object. Compare the measurement of different classroom objects. 	 Supportive Practices The teacher will: Demonstrate how to measure objects starting at an end point and adding on cubes until the cubes are equal in length to the object they are measuring. Design and provide activities to help children recognize the attributes of length, weight, time, and volume. Provide opportunities, and support learners in determining the appropriate measurement tool.
unie, iengui, weigin, voiunie, and temperature	 classroom objects. Use comparison vocabulary to describe how objects are related by length or height. Select appropriate tools for the attribute being measured (e.g. clock to tell time, scale to weigh, measuring cups to help bake a cake). Recognize parts of the day and discuss activities that occur in the morning, afternoon, and night. Participate using the calendar. Identify the season, the month, and the date of today, tomorrow, and yesterday. Observe natural phenomena such as the changing of trees and sunrise/sunset. 	 Provide cooking and mixing activities that use measurement for real life purposes(add simple recipes) Create measurement math stories that require students to determine which measuring tool to use ("What would I need to do to find out how long I brush my teeth in the morning?"). Provide opportunities, and support learners in using standard and nonstandard units to measure objects by more than one attribute. Engage children in thinking about the concept of time (number of days at school, season, days of the week, month; do calendar daily, extend calendar questions).

on (<i>continued</i>)	
Examples	Supportive Practices
 The learner will: Use pictures, drawings, and words to depict events in the order of occurrence. Initiate and respond to questions about the order of events occurring throughout the day. Manipulate clocks in the math center.(to given times, specific school events times) Arrange their individual clocks to match the teacher's demonstration clock. Generate solutions to problems that might arise if we do not pay attention to time 	The teacher will: • Engage in conversation about time (why is time important? What might happen if we didn't have or use clocks? What time do you come to school, go to bed, eat dinner?).
	 Use pictures, drawings, and words to depict events in the order of occurrence. Initiate and respond to questions about the order of events occurring throughout the day. Manipulate clocks in the math center.(to given times, specific school events times) Arrange their individual clocks to match the teacher's demonstration clock. Generate solutions to problems that might arise

2.4 Mathematical Reasoning and Connections

- Make, check and verify predictions about the quantity, size, and shape of objects and groups of objects
- Use measurements in everyday situations (e.g. determine the geography of the school building)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Use math vocabulary comparison terms when making predictions regarding the quantity, size, and shape of objects	 Analyze the size of the container and the objects inside when making an estimate as to the amount. 	 Model, using the appropriate language/vocabulary, the process of estimation (size of object, size of container, comparisons of size of containers- big, bigger, small,
	 Examine the object being measured to determine the appropriate tool and approach. 	smaller, quart, pint, gallon, cup).
		 Engage learners in recognizing and applying measurement in everyday situations.
B. Identify the use of measurement in everyday	 Make an estimate by considering the size of the object(s) and its container. 	 Encourage and support learners in explaining how they applied their skills during mathematical tasks.
situations		 Provide opportunities for learners to explore and apply understanding of estimating and measurement.

2.5 Mathematical Problem Solving and Communication

- Use appropriate problem solving strategies (e.g., guess and check, working backwards)
- Determine when sufficient information is present to solve a problem and explain how to solve a problem
- Select and use an appropriate method, materials and strategy to solve problems, including mental mathematics, paper and pencil, and concrete objects

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify a problem and analyze possible solutions to determine which is most appropriate	 Identify and think about possible solutions to solve daily problems occurring in and out of the classroom. 	 Model, using the appropriate language/vocabulary, the process of identifying and solving a problem.
B. Identify what information is needed to solve a problem	 Describe the steps necessary to solve a problem. 	 Facilitate classroom discussion to identify the necessary steps and the appropriate order to solve problems occurring in and out of the classroom.
C. Demonstrate various strategies to solve a		 Create and provide opportunities for learners to engage in problem solving activities role play; use Second Step program).
problem	 Utilize different strategies and approaches to 	 Highlight the process versus the product of an activity (give specific examples).
	solve daily problems occurring in and out of the classroom.	 Ask open-ended questions, encourage conversations, and create classroom activities that encourage learners to explore a variety of possible solutions(set up situations)
		 Encourage and support learners to explain their mathematical thinking and work.
		 Provide opportunities for learners to explore and apply understanding of problem solving throughout the school day.

2.6 Statistics and Data Analysis

- Gather, organize, and display data using pictures, tallies, charts, bar graphs, and pictographs
- Formulate and answer questions based on data shown on graphs
- Predict the likely number of times a condition will occur based on the analyzed data
- Form and justify an opinion on whether a given statement is reasonable based on a comparison to data

Form and justify an optimion on whether a given statement is reasonable based on a comparison to data		
Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Gather, organize and display data on a bar graph and/or pictograph	 Participate in classroom graphing activities by adding his/her input to a graph. 	 Assist learners in "reading" the data, deducing information, drawing conclusions, and applying data to future events/behavior. Pose open-ended questions to engage learners
	 Analyze the data on classroom graphs. 	in "reading" the data on a graph.
B. Analyze a chart or graph that displays data and	- Development of the data combined to	 Provide opportunities for learners to see graphs used in the real world.
make a prediction	 Draw conclusions from the data, applying the data to future events/behaviors. 	 Encourage and support learners in explaining how they applied their skills during mathematical work.
C. Answer questions based on data shown on graphs or charts	 Answer the question how many? How many more? How many less? Equal? Why? What? How do you know? 	 Provide opportunities for learners to explore and apply understanding of creating and interpreting a graph throughout the school day(can do
D. Use data from graphs to answer questions and form opinions		 Model, using the appropriate language/vocabulary, the process of graphing (creating a graph, adding, and interpreting the data-use simple yes/no, favorite)

2.7 Probability and Predictions

- Predict and measure the likelihood of events and recognize that the results of an experiment may not match predicted outcomes
- Design a fair and an unfair spinner
- List or graph the possible results of an experiment
- Analyze data using the concepts of largest, smallest, most often, least often and middle

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten A State and explain the likelihood of an event using the terms: likely, unlikely, or certain B. Compare sets of data using the concepts of largest, smallest, most, and least. Explain if an event is fair or unfair	Examples The learner will: Determine the likelihood of real life events/things occurring. Discuss the fairness or unfairness of classroom situations. Predict the results of experiments.	 The teacher will: Model, using the appropriate language/vocabulary, the process of determining the likelihood of real life events/things occurring (current events) Explain examples of activities that are most likely to occur at certain times of the year and explaining the meaning of the words likely, unlikely or certain. Engage learners in discussions to determine fair and unfair procedures in and out of the classroom. Facilitate predictions of possible results by referring to previous events. Encourage and support learners in explaining
		referring to previous events.

2.8 Algebra and Functions

- Recognize, describe, extend, create and replicate a variety of patterns including attribute, activity, number, and geometric patterns
- Use concrete objects and trial and error to solve number sentences and check if solutions are sensible and accurate
- Substitute a missing addend in a number sentence
- Create a story to match a given combination of symbols and numbers
- Use concrete objects and symbols to model the concepts of variables, expressions, equations, and inequalities
- Explain the meaning of solutions and symbols
- Use a table or chart to display information
- Describe and interpret the data shown in tables and charts
- Demonstrate simple function rules
- Analyze simple functions and relationships and locate points on a simple grid

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify, describe, and extend patterns based on shape, size, color, sound, or numberB. Use concrete objects to show equal or not equal	 Sort manipulatives and other objects according to attribute (color, shape, size, function). Define sorting rule. Recognize, describe, repeat, and extend a pattern 	 Provide a variety of materials for sorting, classifying, and creating patterns(lids, buttons) Demonstrate and explain the concept of recognizing, describing, repeating and extending a pattern.
	 Use manipulatives to create sets that are equal. 	 Provide opportunities and support learners in
C. Recreate a simple story problem using concrete objects or pictures	 Determine whether two sets of objects are equal by counting the objects in each set. Use concrete manipulatives and/or draw 	 recognizing, describing, and extending patterns. Provide opportunities and support learners in recognizing and describing patterns in the
D. Use concrete objects and trial and error to represent a number story	 pictures to show the process of addition. Use concrete manipulatives to show same, less, more, different, fewer sets 	 environment(use informational text) Model, using the appropriate language/vocabulary, the process of determining equal and not equal sets.

MATHEMATICS			
2.8 Algebra and Functions (continued)			
Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
E. Use concrete objects or pictures to represent a number story that involves a missing addendF. Explain how solutions are determined	 Use concrete manipulatives and/or draw pictures to determine the missing addend (There were 3 bears at the table. Now there are 5. How many came?) Utilize a number line to "count on" from a specified number to reach an end number. Use numbers and symbols to represent adding and subtraction of concrete objects or pictures. 	 Support learners in determining whether sets are equal(match 1 to 1;use terms fewer, more) Support learners using numbers as they draw pictures to illustrate story problems. Support learners in solving the missing addend(given an end number - "5" and a set number - "2", learners will "count on" from "2" to "5" to determine 3 is the missing amount). Provide opportunities and support learners in solving real life story problems (use 	
G. Identify the purposes for different mathematical symbols (+, -, and =)	 Solve a simple story problem and explain the process. Draw story problems and assign the appropriate number to each set, then choose the correct symbol.(record in math journal) 	 flannelboard or overhead) Provide opportunities and support learners in solving story problems with symbolic notation of numbers and adding/subtracting and equal sign(+ = -) Encourage and support learners in explaining how they applied their skills during mathematical tasks (retell with manipulatives) Provide opportunities for learners to explore and apply understanding of the foundations for algebraic thinking throughout the school day. 	

2.9 Geometry

- Name and label geometric shapes in two and three dimensions (e.g., circle/sphere, square/cube, triangle/pyramid, rectangle/prism)
- Building geometric shapes using concrete objects (e.g., manipulatives)
- Draw two and three dimensional geometric shapes and construct rectangles, squares, and triangles on the geoboard and on graph paper satisfying specific criteria
- Find and describe geometric figures in real life
- Identify and draw lines of symmetry in geometric figures
- Identify symmetry in nature
- Fold paper to demonstrate the reflections about a line
- Show relationships between and among figures using reflections
- Predict how shapes can be changed by combining or dividing them

Indicator	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify common two and three-dimensional geometric shapes	• Explore the environment to locate two and three-dimensional shapes (circle, square, triangle, rectangle, cube, sphere, and cone).	 Model, using the appropriate language/vocabulary, the process of recognizing, describing the properties, and
B. Create and reproduce geometric designs using concrete objects	 Name two-dimensional shapes in the environment and describe their properties. Create various geometric shapes with manipulatives (pattern blocks, geoboards, and tangrams). 	 naming geometric shapes (line segment, diagonal, angle, length, width, height) Provide opportunities and support learners in locating geometric shapes within the environment.
C. Draw and/or construct two-dimensional geometric shapes	 Determine if shapes folded in half are the same or different (symmetrical or nonsymmetrical). Observe items from nature to determine if they are symmetrical or nonsymmetrical. 	 Provide materials/opportunities and support learners in creating shapes (toothpicks, Popsicle sticks, foam shapes, playdoh, Model Magic) Provide opportunities and support learners in describing the attributes of shapes

2.9 Geometry (continued)

Indicator	Examples	Supportive Practices
	The learner will:	The teacher will:
D. Name and describe two-dimensional geometric shapes in real life	 Explore the concept of reflection and symmetry. 	 Model, using the appropriate language/vocabulary, the process of determining whether something is symmetrical.
E. Explore symmetry in nature (leaves, butterflies)	 Explore geometric shapes turned in different ways. 	 Provide opportunities and support learners in determining whether a shape or object is symmetrical Read It Looked Like Spilt Milk
F. Identify a reflection	 Use paint and construction paper to create a symmetrical shape- butterfly for ex. Do able to define a reflection as a figure that 	 Support learners in making observations about the symmetry found in nature. Model, using the appropriate language/vocabulary, the process of
G. Create a reflection	 Be able to define a reflection as a figure that does not change size. It is often called a flip. 	 determining whether something is a reflection. Model, using the appropriate language/vocabulary, how a shape can be
H. Identify geometric shapes that are turned in different ways	• Explore shapes in their environment	turned in different ways and remains the same shape.
	 Use geoboards or peg boards to create geometric shapes 	 Encourage and support learners in explaining how they applied their skills during mathematical tasks (math journal)
		 Provide opportunities for learners to explore and apply understanding of geometry throughout the school day.

2.10 Trigonometry

- Identify right angles in the environment
- Model right angles and right triangles using concrete objects

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify triangles in the environment and discuss how they are alike and different	 Identify triangles in everyday situations. Identify and describe similarities and differences in triangles found in everyday situations and teacher created learning materials. 	 Model, using the appropriate language/vocabulary, the process of comparing the attributes of triangles(tri=3, 3 angles, 3 sides) Provide opportunities and support learners in identifying triangles in the environment. Provide opportunities and support learners in comparing the attributes of triangles. Encourage and support learners in explaining how they applied their skills during mathematical tasks. Provide opportunities for learners to explore and apply understanding of triangles throughout the school day.(use pattern blocks-how many triangles =a hexagon or trapezoid)

2.11 Calculus

- Identify whole number quantities and measurements from least to most and greatest value.
- Identify least and greatest values represented in bar graphs and pictographs.
- Categorize rates of change as faster and slower.
- Continue a pattern of numbers or objects that could be extended infinitely.

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten A. Order whole numbers (0-20) from least to greatest value B. Identify situations that occur in real life that are slow or fast in happening	 Examples The learner will: Place number cards in order from 0 to 20. Visualize and think about two objects (such as a bike and a car) and compare their rates of speed. Compare vehicles, pictures of people different ages and discuss the speed or rate of growth 	 The teacher will: Model, using the appropriate language/vocabulary, the process of ordering numbers from least to greatest. Use classroom tools such as the number line, or the 100s board, to model strategies that support learning. Provide opportunities and support learners in ordering numbers from least to greatest. Model, using the appropriate language/vocabulary, the process of deciding which real life event or object is faster and slower.
		 Provide opportunities and support learners in deciding which real life object or event is faster or slower(talk about growth)
		 Encourage and support learners in explaining how they applied their skills during mathematical tasks (use journals or chart paper) Provide opportunities for learners to explore and apply understanding of ordering (from least to greatest, and from slow to fast).

FINAL DRAFT-August, 2006

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FINAL DRAFT-August, 2006

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	<u>Standard</u>	<u>Page</u>
3.1	Develop Self Concept	81
3.4	Develop Care and Self Reliance	82
3.3	Develop Social Interactions	83
3.2	Develop Self Regulation	84

Kindergarten children's social and emotional development is strengthened when they have classroom experiences that promote a sense of autonomy, competence and belonging within an engaging and responsive environment. Teachers support children's self identity and social competence by modeling respectful interactions and using positive guidance techniques that scaffold the development of self control and problem solving. By encouraging positive approaches to learning teachers allow children to plan and make choices so that school becomes meaningful to them and they become engaged in life long learning.

FINAL DRAFT-August, 2006

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PERSONAL SOCIAL			
3.1 Develop Self-Concept			
Content for Kindergarten	Examples	Supportive Practices	
A. Is aware of self and one's own preferencesB. Show independence in a wide range of activities	 The learner will: Verbalize ones own needs, likes, and dislikes. Choose activities, select materials, and carry out tasks. Persist in self-care activities (fastening jacket, the select of th	 The teacher will: Provide a caring, nurturing, and accepting environment for learners. Create an emotional bond with learners. Refer to learners by their names. 	
C. Know and state independent thoughts and feelingsD. Attempt new experiences with confidence and	 tying shoes). Express ones own opinion, or ideas about a particular topic. 	 Make a personal connection with each learner. Display children's artwork at their eye level. Provide, encourage, and support opportunities for autonomy and self-direction (centers, job chart). 	
independence E. Show pride in accomplishments	Work independently for a short time.Adapt to other new adults in the school setting.	 Provide, encourage, and support opportunities for conversations between learners and with the teacher. Provide, encourage, and support opportunities for learners to want to try something new. 	
	 Initiate the sharing of work and accomplishments with peers and adults at the appropriate times. 	 Provide encouragement and praise for learners' efforts. Create a risk free environment that fosters decision-making, autonomy, self-direction, and independence. 	

PERSONAL SOCIAL			
3.2 Develop Self-Regulation			
Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
A. Recognize and label feelings	 Name a range of feelings (happy, sad, angry, surprised). 	 Use non-verbal and verbal interactions that are congruent with feelings. 	
B. Express feelings, needs, opinions, and wants that are appropriate to the situations	Express in different ways how he/she feels.Separate feelings from actions.	 Model genuine, appropriate emotional responses. 	
C. Understand consequences of own behavior	 Control impulsive behavior when frustrated, angry, or excited. 	 Encourage expression of feelings, and supporting learners in managing those feelings. 	
D. Follow rules and routines in classrooms and other settings	 Persist in and completing student initiated and/or teacher directed tasks. 	 Respond to learners' non-verbal and verbal cues. 	
E. Use materials with purpose, safety, and respect	 Maintain composure when not selected (to answer question, be first in line, play game, etc). 	 Promote logical consequences and implement guidance practices that support learner self- control. 	
F. Pay attention as required by the task	 Use words instead of physical actions when upset. 	 Provide activities that support self-control (stop-start games, block play). 	
G. Make transitions between activities	 Move from one activity to another appropriately. 	• Cue learners so they can bring their work to an end prior to transitioning.	
H. Follow adult directions	 Respond to teacher requests or ask clarifying questions about the request. 	• Give specific directions with reasonable expectations.	
I. Able to delay personal gratification until appropriate time	 Understand the logical consequences of one's actions. 	 Provide opportunities for learners to express their feelings through play, writing, and/or other artistic representations. 	
		 Model and coach the learner in negotiating conflicts with others. 	

PERSONAL SOCIAL			
3.3 Develop Social Interactions			
Content for Kindergarten	Examples	Supportive Practices	
A. Is aware of self and one's own preferences	The learner will:	The teacher will:	
B. Know and state independent thoughts and feelings	 Be able to adapt to new adults in the school setting. 	Create responsive adult/child relationships.Use eye contact and body proximity to support	
C. Trust familiar adults and close peers	• Ask for help when needed.	learners.	
D. Enter into and initiate play with peers	• Seek out companionship with other children.	 Provide consistency and predictability in daily routines, environment, and staff. 	
E. Enjoy playing or working with a variety of children in a number of activities	 Begin to negotiate conflicts. Arrange the environm 	 Arrange the environment so there is space for learners to work together. 	
F. Respond with empathy to children who are upset or in need	conflict.Use multiple strategies for getting what he/she	 Be available to assist and facilitate learners in solving their own conflicts rather than 	
G. Seek help from peers and adults when needed	needs.	removing a learner and/or the material.	
H. Respect the feelings, rights, and belongings of others	 Work with other children for at least 15 minutes. 	 Provide ample materials to support group work and play. 	
I. Cooperate in small and large groups activities.	Take turns and wait for a turn.Be aware and sensitive of the wants and needs	 Provide opportunities and encourage group work and play. Model nurturing behaviors by acts of kindness and helpfulness to other adults and children. 	
J. Work or play cooperatively with peers for a sustained time	of others.Give a compliment.		
K. Take turns in games and tasks		 Use classroom management strategies and techniques that promote positive behaviors. 	
L. Share materials when appropriate		 Provide opportunities to role play and practice 	
M. Show increasing abilities to resolve conflicts with peers		new social skills.	
N. Shows nurturing behaviors through helpfulness to others			

PERSONAL SOCIAL

3.4 Develop Care and Self-Reliance

Content for Kindergarten	Examples	Supportive Practices
A. Choose materials and activities independently	The learner will:Select from activities in the classroom.	The teacher will:Organize the materials so children can access
	 Return materials to the shelves when finished. Go to the bathroom independently when he/she has to go or ask for permission to leave the classroom and go to a bathroom outside the classroom. 	 Give support and nurturance when needed but encourage learners to assume responsibility for self-care behaviors. Provide a safe environment that encourages
	 Stay within safe boundaries and follow school safety rules. 	active learning.
	 Speak to an adult when he/she thinks something is not safe. 	
	 Keep track of personal belongings (book-bag, coat, gloves). 	

Reading, Writing, Speaking, and Listening





	<u>Standard</u>	<u>Page</u>
1.1	Learning to Read Independently	89
1.2	Reading Critically in all Content Areas	102
1.3	Reading, Analyzing, and Interpreting	
	Literature	105
1.4	Types of Writing	107
1.5	Quality of Writing	110
1.6	Speaking and Listening	115
1.7	Research	119

Instruction in kindergarten is focused on developing foundational skills that prepare students for later learning in the language arts. Language and literacy development encompasses reading, writing, speaking, and listening. In this foundational year, kindergarten teachers embed language and literacy learning into the daily activities of the classroom. In kindergarten, the exposure to different types of print and their uses serve as the basis upon which children develop/strengthen their knowledge of letter shapes, names, sounds, and words. A comprehensive literacy program builds upon this basis and incorporates reading, writing, speaking, and listening.

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1.1 Learning to Read Independently 4

- Identify the purposes and types of text (e.g., literary, informational) before reading
- Preview the text formats (e.g., title, headings, chapters, and table of contents)
- Use knowledge of phonics, word analysis (e.g., root words, prefixes and suffixes), syllabication, picture and context clues to decode and understand new words during reading.
- Read text using self-monitoring comprehension strategies (e.g., predict, revise predictions, reread, use headings, use organization of text, adjust reading rate)
- Acquire a reading vocabulary by identifying and correctly using words, (e.g., antonyms, synonyms, categories or words). Use a dictionary when appropriate
- Understand the meaning of and use correctly new vocabulary learned in various subject areas
- Demonstrate after reading understanding and interpretation of both fiction and nonfiction text
- Retell or summarize the major ideas, themes or procedures of the text
- Connect the new information or ideas in the text to know information
- Clarify ideas and understandings through rereading and discussion
- Make responsible assertions about the text by citing evidence from the text
- Demonstrate fluency and comprehension in reading
- Read familiar materials aloud with accuracy
- Self-correct mistakes
- Use appropriate rhythm, flow, meter, and pronunciation
- Read a variety of genres and types of text
- Demonstrate comprehension

Content for Kindergarten	Examples	Supportive Practices
A. Develop book/print knowledge and conventions (e.g., turn pages from left to right when reading, read words and sentences from left to right, read from top to bottom, return sweep, parts of a book [cover, title, author, illustrator, title	 The learner will: Hold a book correctly. Recognize the front and back of a book. Distinguish print from picture. 	 The teacher will: Model, using the appropriate language/vocabulary, concepts of print using big books, messages, charts, letters, notes, and signs. Provide daily opportunities for learners to look at and read books, daily message, charts, posters and magazines- vocab dev ,word walls, letter recognition
page], print represents language)	labels, signs, point to letters/words	

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. (continued) Develop book/print knowledge and conventions (e.g., turn pages from left to right when reading, read words and sentences from left to right, read from top to bottom, return sweep, parts of a book [cover, title, author, illustrator, title page], print represents language)	 Demonstrate top to bottom page orientation. Identify the title, title page, author, and illustrator. Identify and preview the cover of a book. Recognize and identify common signs, logos, labels, and classroom print. Demonstrate that text is read from left to right and top to bottom. Demonstrate return sweep. Demonstrate one-to-one correspondence. Distinguish a letter from a word. Differentiate words and spaces. Differentiate first and last letter in a word and first and last word in a sentence. Locate punctuation including periods, question marks, exclamation points, commas, and quotation marks. Participate in learning centers with alphabet cards, words to learn, and alphabet, word math activity, directional activity with 3 steps outlined from top to bottom Help the teacher develop charts, write labels, sentence strip signs 	 Provide a variety of opportunities for learners to demonstrate their knowledge of how print works. Read quality literature daily. Reread familiar/favorite books attending to concepts of print. Assist learners read classroom labels, signs and other environmental and classroom print. Develop charts with learners labeling the parts of a book and record directions for book use. Provide a learning center and classroom library where learners can independently practice using print conventions. Organize author/genre studies to encourage learners to become familiar with different authors, illustrators, and a variety of genres. Model, using the appropriate language/vocabulary, the uses of punctuation during shared reading, when reading aloud, and during shared and interactive writing Engage learners in playing games (finding first/last letters, punctuation marks, title,) with learners' names or classroom print. Provide opportunities for learners to explore and apply understanding of books and print knowledge throughout the school day.

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
B. Develop sentence awareness/word awareness	Discriminate words in a sentence.Clap words in a sentence.	 Model, using the appropriate language/vocabulary, clapping and counting syllables in learners' names, words, and sentences.
	• Clap syllables in a word.	 Provide opportunities for learners to clap out syllables in meaningful words (e.g., words connected to a unit of study).
	 Count and track parts in a word (syllables) and words in a sentence. 	 Provide opportunities for learners to use manipulatives to count words in spoken sentences.
	 Assist teacher in placing environmental print in classroom, participate in "Read the Room" 	 Provide opportunities for learners to explore and apply understanding of sentence and word awareness throughout the school day.
	 Use magazines, catalogs, circulars, mail, books to locate words and/or sentences 	 Read in an exaggerated way to model the purpose of punctuation
	 Point out punctuation and tell purpose 	 Can nod, snap, tap, jump, hop, bow syllables in learners' names, words and sentences Use words from vocabulary, calendar, lunch menu, students' names
		 Use buttons, counters, blocks (non-connecting manipulatives)
		 Model using morning message, chart paper poems and chants, Big Books, charts, posters

Content for Kindergarten	Examples	Supportive Practices
C. Discriminate words and sounds	 Tell whether environmental sounds are the same or different. 	 Model, using the appropriate language/vocabulary, discriminating words and sounds.
	 Tell whether speech sounds are the same or different. Identify and produce initial sounds in words. Sort and classify words by initial sound. 	 Provide opportunities for learners to listen to sounds in order to give a "thumbs up or down" when sounds are the same or different. Provide opportunities for learners to sort pictures and/or objects by beginning sounds. Model, using the appropriate language/vocabulary, "stretching" through
	 Identify initial, final and medial sounds in words. 	 words to hear each sound. Provide opportunities for learners to "stretch" through words to emphasize and identify initial, medial and final sounds in words.
	 Listen to environmental sounds (inside and outside), CD or tape of environmental sounds 	 Hint- when using consonant sounds isolation for discrimination make sure to use very dissimilar sounds in the beginning and work your way to very similar sounds
	 Bring in objects to sort by sound Use rubber bands or elastic to demonstrate stretching of words 	 Bring in subjects for learners to sort by beginning sounds; Have children stretch rubber bands or elastic if you determine learners are able to use these and stretch your voice sounds simultaneously

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
D. Discriminate, identify, and produce rhyming words and alliteration	• Recognize and identify rhyming words.	 Model, using the appropriate language/vocabulary, discriminating,
	• Identify and produce rhyming words.	identifying, and producing rhyming words and alliteration.
	 Identify and produce sentences with rhyming. 	 Engage learners in producing and mimicking rhymes, songs and finger plays.
	 Identify and produce words that begin with the same sound. 	 Read books with examples of alliterative and rhyming language and identify rhyming words and words with similar sounds.
	 Identify and produce sentences with 	 Provide opportunities for learners to identify rhyming pairs by giving a "thumbs up."
	alliteration.	 Use the cloze procedure to engage learners in completing a rhyme when reading a familiar poem/song or predictable book.
	 Repeat and recite fingerplays, rhymes and songs daily 	 Highlight the rhyme found in nursery rhymes, poems, and finger plays.
	 Listen for rhyming words in stories, poems, individual word pairs 	 Provide opportunities for learners as they "stretch" through words to emphasize and identify initial, medial and final sounds in words.
		 Provide opportunities for learners to explore and apply understanding of rhyming and alliteration throughout the school day.

Content for Kindergarten	Examples	Supportive Practices
E. Segment phonemes to form words.	 The learner will: Isolate initial consonant sounds in single-syllable words. Orally segment the onset and rime of single-syllable words. Segment individual phonemes in a single syllable word including CVC words and other two to four phoneme words. Substitute sounds to form new words. Count the phonemes heard in CVC words and other two to four phoneme words. Use egg cartons, milk cartons, teacher made sound letter mats, printed boxes on paper 	 The teacher will: Model, using the appropriate language/vocabulary, segmenting phonemes (" stretching" words into individual phonemes) in single syllable words. Provide opportunities for learners to use Elkonin boxes to segment a word into its phonemes. Engage learners in playful activities to practice manipulating letters within words to make new words. Use plastic or foam letters or letters written on index cards
F. Blend sounds to make a spoken word.	 Blend the onset and rime together to make a word. Blend two to four phonemes together to make a word. Blend letters with a partner on daily basis at specific times Blend with teacher or volunteer or when lining up for a specific journey 	 Model, using the appropriate language/vocabulary, blending phonemes together to make single syllable words. Provide opportunities for learners to blend phonemes together to make words. Provide opportunities for learners to explore and apply understanding of blending phonemes together throughout the school day. Teach and sing a song for blending phonemes Create a directed lesson using chart paper, wipe off boards, student chalkboards, magnetic board or clipboard

Content for Kindergarten Examples Supportive Practices		
Content for Kindergarten	•	
G. Develop knowledge of letters and their sounds (Alphabetic Principle)	 The learner will: Identify letters in own name and names of classmates. Recognize and name letters of the alphabet (in sequence and random order) with automaticity. Identify and name upper and lower case letters in words with automaticity. Sort letters into groups according to their letter name, not the way they visually look. Match uppercase and lowercase letter pairs. Recognize and say the common sounds of letters. Write the letter for the phoneme at the beginning of a word. Write in sand, feel sandpaper, form with model magic or playdoh or glue on paper or bend pipe cleaners Use kinesthetic or body movements when possible to form letters Use songs and chants 	 The teacher will: Model, using the appropriate language/vocabulary, the names of upper and lowercase letters. Model, using the appropriate language/vocabulary, the common sounds associated with each letter. Emphasize letter-sound relationships during large and small group shared reading experiences using big books, messages, charts, letters, poems, notes, signs and child-created texts. Display an alphabet chart in the classroom at learners' level. Provide opportunities for learners to use the alphabet chart as a strategy for reading and writing. Create and engage learners in using a name wall in the classroom. Create and engage learners in using a sight word wall in the classroom. Provide a variety of alphabet manipulatives (alphabet picture cards, magnetic letters,). Support learners as they write their name daily to sign-in for attendance try a variety of mediums

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
G (continued). Develop knowledge of letters and their sounds (Alphabetic Principle)	• Repeat- repeat -repeat for repetition is important	 Provide opportunities for learners to use letter cards to sort and match letters into lowercase and uppercase groups. Provide opportunities for learners to use letter and picture cards to create sound-symbol matches. Engage learners in singing songs that emphasize letter sounds. Provide multiple opportunities for learners to write daily for a variety of purposes. Provide opportunities for learners to explore and apply understanding of the alphabetic principle.
H. Decode words (phonics)	 Identify letters and corresponding sounds. 	 Model, using the appropriate language/vocabulary, applying the sounds of letters to the decoding process.
	 Apply knowledge of sounds and letters when reading. 	 Provide opportunities for learners to apply the sounds of letters to the decoding process (shared reading, small group differentiated reading instruction, and independent reading).
	 Read/write phonetically. 	 Provide opportunities for learners to explore and apply knowledge of letter/sound correspondence to decode print at learning centers.
		 Use all opportunities as they arise during the day

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
I. Encode words (phonics)	 Identify letters and corresponding sounds. Apply knowledge of sounds and letters when writing. 	• Model, using the appropriate language/vocabulary, applying the sounds of letters to the encoding process.
	 Assist teachers with writing letters for chart paper and then copy in own journals Write words by self on chart paper Write words by self in own journal 	• Provide opportunities for learners to apply the knowledge of the sounds of letters to the encoding process during shared/interactive writing, independent writing time, and at learning centers.
	 Read all words written on chart paper and in journal Repeat letter name, sound ,picture name daily using any alphabet picture chart 	 Conduct directed lessons on chart paper with learners providing letters for sounds; write the vowels in a different color than the consonant to bring attention to them Provide materials to copy, write, and draw
J. Read emergently with adequate fluency	 Recite nursery rhymes, poems, and finger plays ,with fluency (appropriate rate and expression). Listen to models of fluent reading. Read from familiar texts with fluency (rate, accuracy, and expression) Use understanding of end punctuation to "read like you're talking." Begin to recognize common sight words with automaticity 	 Model, using the appropriate language/vocabulary, reading with fluency Expose learners to repeated readings of big books, daily message, poems, charts, songs, fingerplays Encourage students to "read along" during shared reading Provide opportunities for learners to practice reading with fluency (rereading familiar texts independently) Provide opportunities for learners to explore and apply understanding of reading with fluency during learning centers

Content for Kindergarten	Examples	Supportive Practices
K. Name and describe new concepts	 Examples The learner will: Name, describe, and talk about new concepts. Request further information about a concept by using the correct name, label, or vocabulary word Engage in conversation, with a variety of partners, using the key vocabulary words. Define a word, using descriptive words, use synonyms and/or antonyms 	 Supportive Practices The teacher will: Model rich spoken language (vocabulary and sentence structure). Provide opportunities for learners to make meaningful connections to concept being taught Ask open ended questions Provide explicit instruction of key vocabulary words Provide artifacts and/or pictures, relevant to the concept being taught. Read aloud from a variety of picture books about the concept, highlighting concept words during the explicit follow-up conversations

Content for Kindergarten	Examples	Supportive Practices
L. Acquire a reading vocabulary consisting of common words (environmental print, sight words, word families)	 The learner will: Identify designated words in print in a variety of texts (word walls, message, poems, labels in the room). Give meaning from what they hear; answer "Why" questions from teacher Practice reading a word wall of sight words Seek assistance in choosing appropriate leveled books Find sight words in library of books and play "I Spy" with them 	 The teacher will: Model, using the appropriate language/vocabulary, the importance of recognizing sight words with automaticity. Create a word wall of sight words. Provide opportunities for learners to read and identify common reading words within a variety of texts. Provide opportunities for learners to explore and apply new sight words during shared reading, small group differentiated reading instruction, independent reading and learning centers. Provide exposure to new vocabulary in various contexts
M. Listen to new vocabulary in multiple contexts in order to understand new words and concepts	 Respond appropriately to books, stories, conversations, with words, and gestures. Listen to stories on tapes, computer, and discussions. Listen to stories on tape, CD or computer 	 Model rich spoken language (vocabulary and sentence structure). Provide exposure to new vocabulary in various contexts (Read Alouds, class discussions, spoken language of teacher, listening activities, computers).

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
N. Discuss unknown words and word meanings	 Respond appropriately to books, stories, conversations, with words, and gestures. Use new vocabulary in the context of dramatic play, daily routines, and classroom conversations. Use the new vocabulary to ask questions to extend learning. 	 Model rich spoken language (vocabulary and sentence structure). Engage students in conversations about picture books through the use of open-ended questions. Provide opportunities and support to learners as they talk to various partners. Encourage and support learners as they expand their use of language (vocabulary and sentence structure) during classroom conversations.
O. Use an increasingly complex and varied spoken vocabulary	 Demonstrate a rich spoken vocabulary in conversations across interest/content areas. Use personal pronouns in conversations. Use past, present, and future tense to describe events. Today Yesterday Tomorrow Expand their use of language- answer questions, and information, use explanations and descriptions 	 Model rich spoken language (vocabulary and sentence structure). Model different verb tenses throughout the school day. Engage students in conversations about picture books through the use of open-ended questions. Provide opportunities and support to learners as they talk to various partners. Encourage and support learners as they expand their use of language (vocabulary and sentence structure) during classroom conversations. Expand on what children say by questioning, adding information, explanations, and descriptions; individualize feedback. Scaffold learners level of learning

Content for Kindergarten	Examples	Supportive Practices
P. Demonstrate an increasing understanding of new vocabulary introduced in conversations, activities, stories or books	 The learner will: Participate in games such as "Simon Says" and demonstrate commands such as jump, skip, touch, clap and point. Use expressive language that includes new vocabulary, pronouns, descriptive words, and complex sentence structures. Play games that require listening and responding to commands (Leap Frog, word builder, Concentration, I Spy, Teacher Made Bingo) 	 The teacher will: Model rich spoken language (vocabulary and sentence structure). Provide opportunities and support to learners as they talk to various partners. Encourage and support learners as they expand their use of language (vocabulary and sentence structure) during classroom conversations. Expand on what children say by questioning, adding information, explanations, and descriptions. Utilize games that require the learner to listen and to respond to commands.
Q. Demonstrate the understanding that communication occurs in different ways including the use of various languages, devices, and gestures	 Follow classroom routines (sign-in, putting backpack in appropriate place, placing homework in basket, selecting snack and lunch items). Match movements and actions to music and directions in songs, poems and finger plays. 	 Design meaningful procedural classroom charts (sign-in, snack, center activities). Engage learners in reciting poems and finger plays, and singing songs that have accompanying movements/gestures. Resources Steve and Greg CDs, Jack Hartman, Jean Feldman, Hap Palmer; The Everything Book

1.2 Reading Critically in all Content Areas

- Read and understand essential content of informational texts and documents in all academic areas
- Differentiate fact from opinion within text
- Distinguish between essential and nonessential information within a text
- Make inferences from text when studying a topic (e.g., science, social studies) and draw conclusions based on text
- Analyze text organization and content to derive meaning from text using established criteria
- Use and understand a variety of media and evaluate the quality of material produced
- Use electronic media for research
- Identify techniques used in television and use the knowledge to distinguish between facts and misleading information
- Assess the quality of media projects (e.g., script, play, audiotape) that have been developed for a targeted audience
- Produce work in at least one literary genre that follows the conventions of the genre

Content for Kindergarten	Examples	Supportive Practices
A. Determine important ideas and messages in informational texts	 The learner will: Retell important facts from the text. Identify the main idea/message of the text. Identify how someone might use the text Complete, with teacher assistance, KWL charts before, during, and after reading, listening, or viewing informational selections. 	 The teacher will: Model, using the appropriate language/vocabulary, identifying important ideas and messages in informational texts. Include informational texts as part of Read Alouds, shared reading, small group differentiated reading instruction, and independent reading. Provide opportunities for learners to make meaning from, and identify important ideas and messages in, informational texts.

1.2 Reading Critically in all Content Areas (continued)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A (continued). Determine important ideas and messages in informational texts	 Discuss concepts and information in texts in small groups and with a partner. Connect text events and information to real life experiences and prior knowledge. Demonstrate understanding of informational text through response activities such as drawing, writing, generating questions and/or answering questions. Demonstrate an understanding of informational text by using them for real life purposes (prepare a recipe, make a picture). 	 Engage learners in completing graphic organizers (Venn diagrams, KWL charts, concept maps,) to summarize the main ideas or important facts from informational texts. Engage learners in conversations about the big ideas and concepts in reading selections. Engage learners in conversations about the author's purpose for writing the text. Provide a variety of ways for children to respond to and demonstrate understanding of texts. Include informational texts in the classroom library.
B. Recognize the characteristics of various types of texts	 Distinguish between different forms of texts and the functions they serve. Distinguish fiction from nonfiction. 	 Model, using the appropriate language/vocabulary, the important features and their purpose in informational text. Provide a variety of texts in the classroom library (fiction and nonfiction trade books, plays, poems, dictionaries, magazines, newspaper). Provide and use a variety of functional documents with simple oral, written, or rebus directions and/or labels (classroom schedules, recipes, rules, signs, posters, maps).

1.2 Reading Critically in all Content Areas (*continued***)**

Content for Kindergarten	Examples	Supportive Practices
B (continued). Recognize the characteristics of various types of texts	The learner will: • Understand that informational text is another word for nonfiction	 The teacher will: Provide a nonfiction library in the classroom that will compliment theme studies and children's interests. Engage learners in discussions to compare fiction and nonfiction texts.
C. Identify features of informational texts and use them to make meaning	 Identify how text features help us to find information – (title, table of contents, headings and subheadings, bold print, charts, diagrams, photographs, captions, labels, organization of text) Will use background knowledge to assist in comprehension 	 Model, using the appropriate language/vocabulary, how to read informational text; how to use text features to aid in understanding. Provide opportunities for learners to use text features in informational text to make meaning during Read Alouds, shared reading, and small group differentiated reading instruction Capitalize on students interests

1.3 Reading, Analyzing, and Interpreting Literature

- Read and understand works of literature
- Identify literary elements in stories describing characters, setting, and plot
- Identify literary devices in stories (e.g., rhyme, rhythm, personification)
- Identify the structures in poetry (e.g., pattern books, predictable books, nursery rhymes)
- Identify the structures in drama (e.g., dialogue, story enactment, acts, scenes)
- Read and respond to nonfiction and fiction including poetry and drama

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten A. Understand and respond to a variety of literary selections that are read, listened to or viewed	 Examples The learner will: View, listen to, share, discuss, and begin to read grade level appropriate selections. Connect personal experiences with the experiences, language, customs, and culture of literary characters. Demonstrate understanding of stories through different response modes, including talk, drawing, writing, drama, and dramatic play. 	 Supportive Practices The teacher will: Provide many opportunities for learners to read, listen to, view, share, and discuss texts from a variety of genres and types - stories, poems, nursery rhymes, songs, plays, raps, finger plays Provide opportunities for learners to listen to and discuss a variety of texts representing diverse cultures and ethnicities. Provide ideas and discussions that help learners make connections between what they read and their own life. Guide children in establishing purposes for listening, reading, or viewing.

1.3 Reading, Analyzing, and Interpreting Literature (continued)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
B. Monitor comprehension while viewing, listening to and reading literary selections	 Preview books by taking "picture walks" and making predictions about texts. 	 Model the importance of making meaning and to be aware when comprehension breaks down.
	 Use prior knowledge to anticipate meaning and make sense of texts. 	 Model, using the appropriate language/vocabulary, how to monitor understanding while reading.
	 Assess and revise predictions while reading. 	 Explicitly model comprehension strategies
	 Self-correct word recognition errors during reading. 	(making connections, visualizing, predicting and checking predictions, questioning) during interactive Read Alouds.
	 Ask oneself if what is being read "makes sense." 	 Provide opportunities for learners to use comprehension strategies during shared reading and small group differentiated reading
	 Visualize and think aloud 	instruction. –KWL, Think Along, QAR
	 Reflect through drawing, writing, talking, drama, movement 	

1.4 Types of Writing

- Write narrative pieces (e.g., stories, poems and plays)
- Include detailed descriptions of people, places, things
- Use relevant illustrations
- Include literary elements
- Write informational pieces (e.g., descriptions, letters, reports, and instructions) using illustrations when relevant
- Write an opinion and support it with facts

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Describe the role of people, places, and things in a story	 Use pictures and drawings to represent ideas. 	 Provide opportunities throughout the school day for learners to engage in shared and interactive writing.
a story	 Participate in group interactive and shared writing experiences. 	 Model, using the appropriate language/vocabulary, the writing process including pre-writing strategies, the various ways ideas can be recorded, revising, editing and publishing. Teach Kidwriting
	 Include the main idea and details in oral descriptions and drawings. 	 Model, using the appropriate language/vocabulary, how to choose characters, setting and plot for a story.
	 Utilize Kidwriting 	 Model, using the appropriate language/vocabulary, the basic writing conventions (holding the writing tool, writing left to right and top to bottom, leaving spaces between words.)
		 Provide opportunities for children to dictate or write narrative pieces from personal experiences.
		 Provide opportunities for learners to write throughout the school day.(lists, menus ,language charts, stories)
		 Provide a variety of writing tools.

1.4 Types of Writing (*continued*)

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten . B. Include simple plot when sharing information C. Identify illustrations that depict story content D. Draw or write informational sentences (letters, descriptions, definitions, collections of facts,	 The learner will: Tell a story in the correct sequence (use graphic organizers- web, Venn diagram, KWL, hand, flower) Select appropriate illustrations to accompany the story. Include illustrations depicting the story 	Supportive Practices The teacher will: • Model, using the appropriate language/vocabulary, the use of illustration to understand a story. (Remind learners that listening to a story creates a picture in our mind) • Model, using the appropriate language/vocabulary, the use of graphic organizers to help learners organize the story line in sequential order. • Read aloud from a variety of genres.(use wordless books) • Model using the appropriate language/vocabulary
D. Draw or write informational sentences (letters, descriptions, definitions, collections of facts, simple instructions) using illustrations when relevant	 Include illustrations depicting the story content as well as characters and setting of the story Make lists, record facts, write letters, create descriptions, and /or draw pictures to share important information about a topic 	books)

1.4 Types of Writing (continued)

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten E. Differentiate between fact and opinion	 Examples The learner will: Use illustrations to represent the facts. Share facts during group discussions. Share opinions during group discussions. Differentiate their opinions from facts during group discussions. Explain a fact as something that is true and can be proven while an opinion is what someone thinks about a subject 	 Supportive Practices The teacher will: Model, using the appropriate language/vocabulary, the difference between a fact and an opinion. Provide opportunities for learners to differentiate between fact and opinion. Use graphic organizers during discussions to help differentiate between fact and opinion (T-chart). Model, using the appropriate language/vocabulary, what writers do when working with fact versus opinion (science logs and recording of the news, versus editorials and persuasive writing). Should say: Model how writers use fact versus opinions.

1.5 Quality of Writing

Third Grade Standards:

- Write with a sharp, distinct focus identifying topic, task, and audience
- Write using well-developed content appropriate for the topic
- Gather and organize information
- Write a series of related sentences or paragraphs with one central idea
- Incorporate details relevant and appropriate to the topic
- Write with controlled and/or subtle organization
- Sustain a logical order
- Include a recognizable beginning, middle, and end
- Write with an awareness of the stylistic aspects of composition
- Use sentences of differing lengths and complexities
- Use descriptive words and action verbs
- Revise writing to improve detail and order by identifying missing information and determining whether ideas follow logically
- Edit writing using the conventions of language
- Spell common, frequently used words correctly
- Use capital letters correctly (first word in sentences, proper nouns, pronoun "I")
- Punctuate correctly (period, exclamation point, question mark, commas in a series)
- Use nouns, pronouns, verbs, adjectives, adverbs, and conjunctions properly
- Use complete sentences (simple, compound, declarative, interrogative, exclamatory, and imperative)
- Present and/or defend written work for publication when appropriate

Content for Kindergarten	Examples	Supportive Practices
A. Conventional Penmanship-Trace, copy and generate letters of alphabet-both uppercase and lower caseB. Create a focus for the 'piece' of writing.	 The learner will: Write upper case and lower case letters of the alphabet independently attending to the form and proper spacing of the letters Sort pictures, word cards, or objects that relate to a specific topic. 	 The teacher will: Provide opportunities throughout the school day for learners to engage in tracing, copying forming and writing letters throughout the day. Provide opportunities for learners to write throughout the school day, engaging in shared and interactive writing

The teacher will:

1.5 Quality of Writing

	The lease and and the	
	The learner will:	 Model, using the appropriate
C .Retell about specific experiences, people, objects, events, or stories with a focused topic	• Retell a story using picture cards.	language/vocabulary, the 'how tos; of creating a topic for one's "piece", mini-lessons
J / / I	• Retell using graphic organizers	 Engage learners in thinking about their 'piece' and then sharing it with a classmate prior to writing.
	• Share story with partner	 Provide learners with opportunities to sequence events or pictures.
	• Finish story starters	
D. Use appropriate content for the topic	• Brainstorm ideas to use for the topic	 Provide learners with many opportunities to speak throughout the school day to develop the foundational skills necessary to be a writer.
	Brainstorm detail/additional information to support the topic	 Model, demonstrate, encourage and support as they expand their use of language (vocabulary and sentence structure).
	• Compose sentences through dictation, pictures, and/or words with one central topic.	 Encourage learners and model ways to stretch out the sounds in words when writing (use prompts)
	• Incorporate relevant information	 Model, using the appropriate language/vocabulary, prewriting strategies(selecting a topic, gathering information, thinking about possible ideas, drawing pictures).
		 Provide opportunities for learners to draw a picture and then write what corresponds to that picture
		 Provide opportunities for learners to brainstorm ideas for the topic.

1.5 Quality of Writing (continued)

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten E. Organize words into a complete thought	Examples The learner will: • Use phonics skills when composing words • Arrange ideas in a logical order. • Use magic lines for unknown sounds • Include a beginning, middle, and end when telling a story. • Complete an idea to include the subject and	 The teacher will: Model rich spoken language (vocabulary and sentence structure). Provide learners with many opportunities to speak throughout the school day to develop the foundational skills necessary to be a writer. Encourage and support learners as they expand
F. Use a variety of pictures or words to express a thought	 Complete an idea to include the subject and verb. Use spaces between words Write left to right and top to bottom Use a variety of pictures, dictations, or words to make a complete thought Use descriptive words and verbs. 	 their use of language (vocabulary and sentence structure) during classroom conversations. Provide opportunities to sequence events or pictures. Support learners in forming a complete sentence. Model rich spoken language (vocabulary and sentence structure). Provide learners with many opportunities to speak throughout the school day to develop the foundational skills necessary to be a writer Encourage learners to expand their use of language (vocabulary and sentence structure) during classroom conversations Point out rich vocabulary, interesting uses of language and other features of Read Alouds that give the text as distinctive "voice" and style

1.5 Quality of Writing (continued)

Content for Kindergarten	Content for KindergartenExamplesSupportive Practices	
Content for Kindergarten F (continued). Use a variety of pictures or words to express a thought G. Revise writing or illustrations to sequence events and add detail	 The learner will: Use resources to spell correctly (environmental print, word walls) Reread sentences or story to oneself, a classmate, and/or an adult. Add words or pictures to include more detail. Cut and paste ideas Use word wall for assistance Use editor checklist Read to oneself and/or to friend Read finished work to the class or a small group. Take pride in authoring a page of a class book. 	 The teacher will: Provide opportunities to describe objects and pictures (show and tell,) Provide various classroom resources around the room (labels, word walls, charts, word splashes, alphabet charts). Brainstorm and list various ways to start a sentence. Complete example with learners Model, using the appropriate language/vocabulary, the process of revising a 'piece'. Support learners as they reread and think about their 'piece.' Support learners as they add words (descriptive, details) or pictures to their 'piece'. Share student work that exhibits sequence, details, and/or descriptive language.
H. Publish or present writing	 book. Arrange the finished work into an individual book. 	· · ·
		 Display examples of writing in the classroom or hallway. (published or with teacher's pencil corrections)
		 Add learners' work to a class book Help each learner publish his/her work into an individual book.

FINAL DRAFT-August, 2006





1.6 Speaking and Listening

Third Grade Standards:

- Listen to others
- Ask questions as an aid to understanding
- Distinguish fact from opinion
- Listen to a selection of literature (fiction and/or nonfiction)
- Relate it to similar experiences
- Predict what will happen next
- Retell a story in chronological order
- Recognize character and tone
- Identify and define new words and concepts
- Speak using skills appropriate to formal speech situations
- Use appropriate volume
- Pronounce most words accurately
- Demonstrate an awareness of audience
- Contribute to discussions
- Ask relevant questions and respond with appropriate information or opinions to questions asked
- Listen to and acknowledge the contributions of others
- Display appropriate turn-taking behaviors
- Participate in small and large group discussions and presentations
- Participate in everyday conversations
- Present oral readings, short reports, and interviews
- Give simple directions, explanations, and reporting of an emergency
- Use media for learning purposes

Content for Kindergarten	Examples	Supportive Practices	
A. Listen responsively to directions, stories and conversations	 The learner will: Respond by demonstrating appropriate listening behaviors such as: eyes on speaker and facing speaker. 	 The teacher will: Model, using the appropriate language/vocabulary, the behaviors of being a good listener (eye contact, turn taking, quiet body, hands to self, voice turned off) 	

1.6 Speaking and Listening (*continued*)

Content for Kindergarten	Examples	Supportive Practices
A (<i>continued</i>) Listen responsively to directions, stories and conversations	 The learner will: Respond appropriately to books and stories with facial and body gestures (smiling and laughter). Wait his/her turn to speak Follow two-step and three-step directions. 	 The teacher will: Provide oral language experiences through beginning exercises, open-ended questions, and think-pair-share experiences. Read various genres and engage learners in conversations about the story/text.
B. Student will recite rhymes, songs and familiar text	 Verbally recite poems and finger plays with peers. Sing songs and use musical instruments. 	 Lead choral readings. Use a poem of the week to develop fluency. Build a class repertoire of familiar songs and finger plays.
C. Speak clearly enough to be understood by most listeners	 Articulate most speech sounds correctly. Keep hands away from his/her mouth when speaking. Speak in a voice loud enough for the audience to hear. Look at the audience when speaking. 	 Model, using the appropriate language/vocabulary, the behaviors of speaking in a clear voice. Provide learners with many opportunities to speak throughout the school day (beginning exercises, opening circle, snack,). Encourage and support learners as they expand their use of language (vocabulary and sentence structure) and confidence at speaking during group discussions and in front of others (beginning exercises, opening circle, snack, show and tell, weekly news,).

1.6 Speaking and Listening (*continued*)

Content for Kindergarten	Examples	Supportive Practices
D. Modulate voice volume and intonation	 The learner will: Act out character roles with appropriate expression (mean, happy, sad, kind voice). Demonstrate the use of punctuation in sentence structure by using voice intonation appropriately. Use laughter and higher pitch when telling a joke. Demonstrate the use of "inside and outside voice". Modulate voice to express opinions and feelings. 	 The teacher will: Model, using the appropriate language/vocabulary, modulating one's voice volume and intonation. Model, using the appropriate language/vocabulary, the behaviors of reading and speaking with intonation reflective of end punctuation marks. Model inappropriately also Provide opportunities and support to learners as they read and reread stories, poems, finger plays, songs, and/or informational text for fluency during shared reading , differentiated reading instruction, and imaginative play.
E. Ask and answer relevant questions and share experiences individually and in groups	 Verbalize personal experiences in an appropriate sequential manner. Engage in conversations about favorite books, characters and events. Ask questions related to fiction and non-fiction books. Ask relevant questions during classroom conversations. Talk about stories before writing. 	 Model, using the appropriate language/vocabulary, the behaviors of thinking and reflecting in order to ask relevant questions. Provide opportunities and support to learners as they engage in metacognitive thinking-plan of action maintained, monitored and evaluated. Allow children to talk about personal experiences, preferences and topics of interest.

1.6 Speaking and Listening (*continued*)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
F. Initiate and respond appropriately to conversations and discussions	 Initiate appropriate conversations with adults and peers. 	 Model rich spoken language (vocabulary and sentence structure) during classroom conversations.
	 Participate appropriately (questions and answers tied to the topic of conversation) in conversations with adults and peers. 	 Encourage and support learners as they expand their use of language (vocabulary and sentence structure) and confidence at speaking during group discussions and in front of others.
		 Provide opportunities and support learners as they engage in teacher planned and learner initiated spontaneous conversations throughout the school day.

1.7 Research

Third Grade Standards:

- Select a topic for research
- Locate information using appropriate sources and strategies
- Locate resources for a particular task (, newspapers, dictionary)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Choose a topic of interest to research/talk about/share with classmates	 Use classroom library to investigate, explore, and research a topic of interest. Record information in written or picture form. 	 Create classroom literacy materials to engage and stimulate children's interests. Provide opportunities for learners to share topics of interest. Provide opportunities for learners to research topics.
B. Demonstrate increasing understanding that technology can be used to gain information	 Use appropriate interactive software programs. Identify basic computer parts (monitor, keyboard, mouse). 	 Support children's interaction with a variety of communication 'tools' (dictionaries, translators, communication devices, computer). Select software and Internet web sites to support learners' research. Select software that matches learners' skill levels. Select software that represents both fiction and non-fiction literacy.
C. Recognize the different parts of informational text that are used to locate information (table of contents, index, glossary)	 Use classroom library to investigate, explore, and research a topic of interest. Use different parts of informational text to aid in the gathering of information. 	 Create classroom literacy materials to engage and stimulate children's interests. Provide opportunities and support to learners as they use different parts of informational text to aid in the gathering of information.

FINAL DRAFT-August, 2006

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Science Pennsylvania's Kindergarten

Standards



<u>Standa</u>	ard	<u>Page</u>
Science and Te	echnology	
.3.1	Unifying Themes	125
3.2	Inquiry and Design	129
3.3	Biological Sciences	132
3.4	Physical Science, Chemistry and Physics	135
3.5	Earth Sciences	139
3.6	Technology Education	143
3.7	Technological Devices	146
Environment a	nd Ecology	
4.1	Watersheds and Wetlands	151
4.2	Renewable and Nonrenewable Resources	152
4.3	Environmental Health	153
4.4	Agriculture and Society	154
4.6	Ecosystems and their Interactions	155
4.7	Threatened, Endangered and Extinct Specie	es 156
4.8	Humans and the Environment	157
4.9	Environmental Laws and Regulations	158

Kindergarteners learn about scientific concepts through the active exploration, observation and investigation of materials and ideas. These experiences provide the foundation for abstract and scientific thought. Students who are given opportunities to conduct experiments, gather data and make conclusions are developing skills that support discovery about the natural world, the scientific process and principles and technology.

FINAL DRAFT-August, 2006

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Science

Science and Technology





	<u>Standard</u>	<u>Page</u>
3.1	Unifying Themes	125
3.2	Inquiry and Design	129
3.3	Biological Sciences	132
3.4	Physical Science, Chemistry and Physics	135
3.5	Earth Sciences	139
3.6	Technology Education	143
3.7	Technological Devices	146

FINAL DRAFT-August, 2006

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3.1 Unifying Themes

- Know that natural and human-made objects are made up of parts
- Know models as useful simplications of objects or processes
- Illustrate patterns that regularly occur and reoccur in nature
- Know that scale is an important attribute of natural and human made objects, events and phenomena
- Recognize change in natural and physical systems

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify and describe what parts make up a wholeB. Identify how a part relates to the whole in both natural and human-made objects	 Play with fraction blocks and puzzles. Complete a variety of puzzles. Use geoboards to create shapes & identify attributes that shapes share Take apart simple toys or safe household items & identify the types and uses of the parts within. Study common plants to identify the parts and explain their relationship to the whole. Sort a collection of parts into natural (nuts, twigs, seeds, leaves, etc) and human-made (buttons, laces, zippers, screws, nails, etc). Use model or toy gear-sets to explore the interdependence of parts in a system. 	 Integrate the concepts of parts and whole whenever relevant. Provide a wide variety of manipulatives that children can put together/take apart. Set up a learning station where children can take apart items, categorize parts and draw conclusions about their functions and relationships to the whole.

3.1 Unifying Themes (continued)		
Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
C. Explore realistic models D. Explore patterns that regularly occur in nature	 Explore realistic models through active learning. Identify natural patterns in leaves, insides of shells, coats of animals, etc. Replicate natural patterns using appropriate materials in the classroom. Select appropriately sized props to use in different types of play, e.g., furniture for a block building. 	 Discuss attributes of a pattern whenever appropriate and drawing children's attention to examples of patterns in the everyday environment. Provide realistic models Provide materials or experiences to help children develop understanding of non-linear patterns, e.g., concentric circles of a raindrop in a puddle, concentric rings of an onion. Set up a learning station where children can explore patterns from a variety of materials.
E. Identify observable patternsF. Develop beginning understanding of natural patterns	 Use markers and crayons in the art area for drawing to enable child to develop perspective Use recyclables to make a model of items from 	 Introduce vocabulary including size comparisons, scale, perspective and symbols when relevant to various learning situations. Draw children's attention to pictures in books
G. Begin to use the understanding of patterns to make predictions	 Use blocks and other manipulatives to recreate common structures seen in the neighborhood. 	 and have them compare the size of pictures to the size of those items in real life. Set up a learning station where children will explore with n on-fiction books and manipulatives.
H. Explore the concept of scale		 Ask thought provoking questions.
I. Begin to use symbols to represent size		

3.1 Unifying Themes

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
J. Recognize change K. Examine and explain change through simple observation and recording L. Develop simple understanding about motion M. Describe change to objects caused by heat, cold, light or chemicals	 Record his/her growth from infancy to kindergarten through the use of photographs, drawings and writing. Plant seeds, recording the change in their appearance overtime. Record the seasonal change in the appearance of a tree throughout the year. Explain fast, slow, forward and backward motion when using manipulatives and toys. Demonstrate understanding of how to put various items with wheels or without wheels into motion using inclines with different angles, e.g., make ramps in the block area and testing out how far materials will roll when slid down the ramp. Use dominoes or other similar items to discover motion can be transferred from one item to another. Investigate animals and their adaptations that enable them to move in different habitats, e.g., the shape of penguin's body, the webbed toes of a frog, etc. 	 Read books about life cycles of animals and plants, view a movie on the construction of a house or visit a construction site to observe change in natural and physical systems. Provide learning materials such as puzzles or magnetic games that require children to sequence the steps in a life cycle or to determine the order of events of everyday activities that lead to a change, e.g., the construction of a building from start to finish. Take children on nature walks to observe and discuss changes in the local plants and animals. Provide activities for observation and the documentation of change. Provide nonfiction books that discuss a variety of vehicles that can be put into motion. Build a learning station where children can explore water, wind and gravity as forces that put objects at rest into motion.

3.1 Unifying Themes		
Content for Kindergarten	Examples	Supportive Practices
	Examples The learner will: • Participate in cooking projects that build understanding of changes caused by heat. • Engage in a variety of teacher prepared experiments relating to heat, cold, light and chemical change and will be asked to make predictions, records observations and provide explanations for any change evidenced. • Put common classroom items outside in direct sunlight or shade. Return later to feel and discuss the temperature changes in each of the items.	 The teacher will: Have children compare and sequence the speeds of different types of motion, e.g., walking, skating, riding a bike, horse, car, plane, rocket, etc. Provide building materials in an area of the room where children can design vehicles and record their distance and/or speed using a chart. Utilize teachable moments like school construction to document physical changes and make a class book. Set up safe, hands-on experiments/cooking activities to demonstrate changes caused by chemicals, e.g. put plants in a variety of lighting conditions including no light; freeze a variety of common kitchen items like vinegar, milk, water, liquid soap, vegetable oil. Guide children in making predictions using charts or journals, have children record their observations using photos, drawings or writing and provide experiences that prompt children
		to explain the changes observed.Create a class book.

3.2 Inquiry and Design

- Identify and use the nature of scientific and technological knowledge
- Describe objects in the world using the five senses
- Recognize and use the elements of scientific inquiry to solve problems
- Recognize and use the technological design process to solve problems

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Build an introductory vocabulary of scientific terms	• Observe and participate in simple experiments.	 Use vocabulary when answering and posing questions
	 Ask questions about their observations. 	 Write vocabulary on cards to be hung in
B. Form clear explanations based on observation and participation in common experiments	 Predict what might happen next. 	classroom near science corner
	 Record results of experiments or observations using charts, graphs or journals. 	
C. Connect known ideas with new knowledge to build understanding or refine concepts	 Share conclusions and explanations with other students. 	
D. Distinguish between scientific fact and a belief through literature	 Respond to "what if" questions. 	

3.2 Inquiry and Design (*continued*)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
C. Use the five senses as tools with which to: observe, collect information, classify, describe	 Identify the many ways senses are used. 	 Provide many opportunities for sensory exploration.
	 Identify common items using their senses. 	 Model new vocabulary where appropriate to
	 Use vocabulary to describe the degrees of similarities and differences based on use of the five senses. 	extend children's observations (e.g. That tree bark feels scratchy. Why do you think it feels rough?).
D. Use observation to develop a descriptive vocabulary based on sensory experiences	 Explore objects, materials and events by acting upon them and noticing what happens. 	 Provide connections with literature.
		 Compare and contrast materials
	 Describe, compare, sort, and classify observable characteristics and properties. 	• Set a clear focus for inquiry.
E. Demonstrating willingness to modify explanations based on experience or observations	 Record observations, explanations and ideas through multiple forms of representation including drawing, simple graphs, writing and movement. 	 Provide opportunities to observe and explore to build a broader base of knowledge from which to construct new ideas.
	 Listen to others with different perspectives. 	 Use scientific talk to support children's thinking.
E. Demonstrate understanding of the process of scientific inquiry by:	 Work collaboratively. 	
• Participating in scientific investigations		
Asking relevant questions		
• Making predictions based on experience or observation		130

3.2 Inquiry and Design (*continued*)

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten G. Identify and explain basic problems H. Identify possible solutions I. Test out solutions J. Record steps taken	Examples The learner will: • Identify a problem to be solved. • Pose possible solutions. • Raise questions. • Test possible solutions. • Record steps taken to solve the problem using multiple forms of representations including drawing, writing and movement or by discussion with teacher assistance for charting. • Draw conclusions from results.	Supportive Practices The teacher will: • Recognize opportunities for problem solving by raising questions. • Engage children in identifying and implementing solutions. • Set up problem solving activities. • Provide materials to test out solutions. • Provide documentation of steps taken and results by charting, posters, photography, or other communication means.
K. Record results		

3.3 Biological Sciences

- Know the similarities and differences of living things
- Know that living things are made up of parts that have specific functions
- Know that characteristics are inherited and, thus, offspring closely resemble their parents
- Identify changes in living things over time

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify the similarities and differences of living thingsB. Identify the life processes of living things	 Observe and document the growth of a living thing through drawings, writing, and/or photos. Explore the life process of living things (e.g. butterflies, frogs). Sort animals according to their coverings (e.g. 	 Provide samples of living things for students to investigate (e.g. butterfly garden, worm farm, bird feeder outside). Utilize local resources to broaden children's
C. Sort organisms according to their shared characteristics	fur, feathers, scales).Sort animals according to their habitats (e.g. air, land, water).	 knowledge of living things, their habitats, and characteristics. Engage children in studying the needs of living things through growing plants, or taking care
D. Demonstrate a basic understanding of similarities and differences that relate to environmental habitat	 Identify the basic needs necessary for plants and animals to survive. Classify animals by their common external characteristics. 	 of animals. Use a Venn Diagram to sort animal habitats or characteristics. Provide connections with literature.
E. Describe basic needs of plants and animals		 Have children share pets and how they care for them
F. Know that some organisms have similar external characteristics		

SCIENCE AND TECHNOLOGY 3.3 Biological Sciences (continued)		
	The learner will:	The teacher will:
 G. Understand that living things are made up of parts that have specific functions H. Explore characteristics that can be inherited I. Identify characteristics for animal and plant survival identified with seasonal changes 	 Investigate the parts of plants. Describe through writing, drawing or identifying pictures. Investigate parts of insects. Determine how the parts make things function (e.g. human body). Identify physical characteristics that appear in parents and their off-spring using pictures. Document by drawing changes over time of trees or plants. Observe the behavior of local animals as they prepare for changes in seasons (e.g. rabbits, squirrels, birds). 	 Provide opportunities for exploration of parts of plants. Use diagrams to demonstrate the parts of plants, animals, human body. Provide nonfiction texts for students to explore parts of living things. Respond to children's questions with honesty, respect and sensitivity. Provide connections with literature. Provide pictures of adults and their offspring for identification of inherited physical characteristics. Provide opportunities for children to observe plants and animals over time during seasonal change.

SCIENCE AND TECHNOLOGY 3.3 Biological Sciences (continued)		
	The learner will:	The teacher will:
 J. Describe changes in living things over time K. Record changes in life processes L. Describe basic needs of plants and animals M. Know that some organisms have similar external characteristics 	 Observe living things over different time periods. (a week, a month, seasons). Document the changes from observations by drawing, writing or in photographs. Recognize from illustrations the process (sequence) of changes in some living things (e.g. butterfly, frog, , plants from bulbs or seeds). 	 Provide opportunities for observations of living things over time. Provide ways for children to document their observations. Provide illustrations to demonstrate changes in life process. Provide nonfiction text to illustrate concept of change over time.

3.4 Physical Science, Chemistry and Physics

- Recognize basic concepts about the structure and properties of matter
- Explore basic energy types and sources
- Explore and describe different types of force and motion
- Describe the composition and structure of the universe and the earth's place in it

Content for Kindergarten	Examples	Supportive Practices
Content for Kindergarten A. Understand the meaning of what matter is B. Describe properties of matter	 The learner will: Sort and classify common classroom materials or household items by solid, liquid or gas. Work with materials at a sensory table filled with water, rice, sand, beans, etc. to explore the properties of solids and liquids. Use a filter to remove solid material from a mixture at the water table; using a filter to remove larger items from a mixture of solids at the sand table. Conduct an experiment to convert different common liquids into solids by freezing them and recording results, such as, how long it took to change each substance from a liquid to a 	 Supportive Practices The teacher will: Fill two clear containers. One with solid objects (label solid) and one with colored liquid (labeled liquid). Use another empty container (labeled gas). Explain that all three containers are different forms/states of matter. Rotate items in the sensory table to include water, rice, beans, soil and sand—materials that reflect a range of properties and can be used with a wide variety of tools or experimentation. Draw attention to the way different materials behave at the sensory table and in the environment such as: most solids do not lose shape unless another force causes it. Liquid
	solid.Know that matter is mass that occupies space	flows and doesn't have a shape. Gas fills the space it is in.

SCIENCE AND TECHNOLOGY			
3.4 Physical Science, Chemistr	3.4 Physical Science, Chemistry and Physics (continued)		
Content for Kindergarten	Examples	Supportive Practices	
 C. Recognize that matter can change from one state to another D. Demonstrate an understanding that combining two or more substances can make new materials with different properties E. Develop a working vocabulary that manages concepts of material characteristics 	 The learner will: Participate in safe, classroom cooking activities to combine substances to create new materials, such as play dough. Make hypotheses about what will happen to different substances when water, heat or cold is added. Make an "ocean in a bottle" by adding water and vegetable or baby oil to determine that some liquids do not mix. Participate in an experiment to observe evaporation and condensation; making predictions and recording results. 	 The teacher will: Model appropriate vocabulary while facilitating children's interactions with different types of matter, including consistency, texture, thickness, mixture, liquid, solid, etc. Ask probing questions when children are experimenting with various materials, such as, "What do you suppose will happen to the consistency when we add a liquid?" Engage children in making predictions while working with different mixtures, such as, "Will the cake batter remain a liquid after we put it in the oven and add heat?" After the cake has baked ask children to think about whether the cake can be turned back into a liquid mixture; ask why they think they way they do. Set up a learning station where children can design their own play dough recipe using a variety of materials, creating a picture recipe and then testing it out to make play dough. Provide a variety of cooking experiences on a regular basis. (Make Jello, pasta, hardboiled eggs to demonstrate the substance as a liquid, gas (boiling water steam), and solid. Utilize nonfiction Big Books and Read Alouds pertaining to matter. 	

SCIENCE AND TECHNOLOGY 3.4 Physical Science, Chemistry and Physics (continued)		
	The learner will:	The teacher will:
F. Explore basic energy types and sources	 Identify energy forms, i.e. sunlight, heat, and motion. Make rockets with balloons. Explore stored energy by building rubber band cars. Demonstrate how energy can be transferred by working with dominoes. Identify common toys and household items that require an energy source to function. Bring a toy from home to discuss and share the energy source. Plant two seedlings. Put one in the sunlight and one away from the sunlight. Observe and record what happens. 	 Create a learning station where children can engage in hands-on experiments to explore sources of energy and the transfer of energy. Use nonfiction Big Books and Read Alouds. Ask probing questions, such as, "What is propelling the rocket forward?" Elaborate on children's explanations by introducing appropriate vocabulary, such as, "Yes, the air in the balloon is a source of energy." Take children on a sound walk and have them identify sources of sound; take children outside
G. Explore variations of sound	 Use a variety of containers, recyclables and materials to make sound. Identify if a sound is high or low. 	to listen to the rain and the sounds it produces when it strikes different surfaces.
H. Identify directed air as a source of movement	 Experiment when applying different force when striking an object or instrument to change the sound produced and discuss the results. Identify what creates various sounds Predict characteristics of sound a particular instrument or object will make 	 Use CD's of sounds; Create a learning station where children can design different simple instruments from recyclable materials.

SCIENCE AND TECHNOLOGY 3.4 Physical Science, Chemistry and Physics (<i>continued</i>)		
	The learner will:	The teacher will:
I. Develop a directional vocabulary	 Describe his/her play with wheeled toys, wind-up toys and boats using directional words such as forward, backwards, sideways, etc. Create directed air using a variety of items including blowing through a straw, using a paper fan, using an electric fan, squeezing a bellow or hollow container like a ketchup bottle to propel cotton balls through an obstacle course, moving items of different weights across a table surface or boats in a water table. Engage in art experiences where directed air produces different art effects, such as blowing through a straw to move paint on paper. Build different toys that are propelled by directed air, such as pinwheels, paper planes, kites, windsocks and parachutes. 	 Demonstrate how sound produces vibrations by striking a cookie sheet above the head of a drum. Place rice on the drum head and the vibrations from the cookie sheet will cause the rice to jump off the drum head. Rotate materials in the classroom so that children can explore motion in numerous ways, such as adding inclines and wheeled toys to the block area, adding clear tubing to the water table to observe the movement of water, etc. Create a learning station where children follow picture directions to create a variety of wind toys. Create a chart to record the conditions outside and the results achieved with each toy. Compare these results with children's attempts to power the toys by creating their own directed air with straws, fans and bellows inside the classroom. Have children move in different directions (forward, backward, sideways, use sensorimotor activities etc.).

3.5 Earth Sciences

- Know basic landforms and earth history
- Know types and uses of earth material
- Know basic weather elements
- Recognize the earth's different water resources

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
 A. Identify flat land, hills and mountains B. Distinguish between three types of earth: soil, rock and sand 	 Use the terms flat land, hills and mountains to describe local spaces in the surrounding community. Study pictures/maps in fiction and non-fiction books to create a class mural that illustrates the concepts flat land, hills and mountains. Examine materials in a learning center and labeling them as soil, rock or sand and studying soil as weathered rock and decomposed organic remains. Study rocks as pieces of the earth and studying sand as rock particles. Sort rocks by different attributes on a rock chart. 	 Identify and use books that show the appropriate land forms and draw the children's attention to these concepts. Take the children on a walk or fieldtrip to experience these landforms. Provide children with paper-mache and other art materials to create a model of these land forms. Rotate soil, sand and different rock types in the sensory table for exploration; add water to these materials too. Take the children on a dig for soil samples and observing what is in the soil. (worms, leaves, rocks, etc.).

SCIENCE AND TECHNOLOGY		
3.5 Earth Sciences (<i>continued</i>)		
Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
 B (continued). Distinguish between three types of earth: soil, rock and sand C. Build a vocabulary of weather related terms D. Distinguish between different types of precipitation 	 Investigate a collection of rocks and compare/contrast them. Explore the process of erosion by breaking rock into smaller pieces using a wooden hammer and examine sand under a magnifying glass to identify broken pieces of rock and/or shell. Conduct an experiment where small plants are grown in soil, rock or sand and the results are tracked over time and recorded on a chart. Explore what a fossil is. Discuss the weather as it pertains to meaningful events such as going outside for recess, going on a fieldtrip, conducting an experiment that requires sunlight, wind, etc. Create a mural using different art materials to illustrate the different types of precipitation. 	 Take the children on a rock discovery walk. Ask questions about the attributes of the rocks. Set up a learning center with earth materials where children can examine soil, rock and sand with magnifying glasses, describe their characteristics and classify/sort these items. Guide the children in collecting a soil sample from a school garden or lawn and investigating its contents; label the contents as soil, rock or sand (possibly introduce the term clay). Do a hands-on fossil making activity with coffee grinds and objects like leaves or clay, petroleum jelly, and objects to press into the clay. Use nonfiction and fiction Big Books and Read Alouds. Design a learning station where children conduct hands-on experiments to investigate weather concepts, such as, making a cloud in a jar, making hail with different colored clay, building a wind-vane from cardstock and straws, etc.

3.5 Earth Sciences (*continued*)

5.5 Earth Sciences (commund)		
Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
E. Distinguish between clouds and fog	 Conduct an experiment using a rain gauge or other water collecting device to discover the difference between drizzle, rain, pouring, etc. 	 Create learning materials where children sort pictures according to weather or season. Place prisms in the classroom to explore the
F. Explore thermometers as tools for measuring temperature	 Sort pictures of activities, clothing and toys according to the types of weather and season they would most closely be linked to, e.g. a kite 	creation of rainbows and create rainbows outside on a sunny day by sprinkling water in the air.
G. Identify how weather affects daily circumstances	would go with wind, an umbrella with rain, sunglasses with sun, etc.Create a seasonal collage or booklet.	 Chart the daily temperature with the children and at the conclusion of the month transfer this information to a bar or line graph.
H. Explain how the different seasons affect plants, animals and daily human life	 Conduct an experiment using thermometers to explore the temperatures of liquids found throughout the school grounds, e.g., water from a fountain, the milk in a refrigerator, water from a puddle, paint at the art easel, etc. 	 Create a daily weather graph. Can use this to compare and contrast monthly weather patterns. Draw attention to the daily weather report in
I Identify stream given laber and energy	 Identify streams, lakes, rivers, and oceans on a picture, map or globe in a learning station 	the newspaper and discuss how weather is not the same in other areas of the state, country or world.
I. Identify stream, river, lake, and ocean	 activity. Explain what makes water solid and what makes ice melt. Create a list of the ways water is used in their 	 Create a K-W-L chart with the children about what they know about water on Earth. What they want to know and what they've learned
J. Explore the difference between fresh and salt- water bodies	 Create a list of the ways water is used in their homes/communities and in the school. Design a poster suggesting a way to take care of water. 	 at the end of the unit. Design a learning station for hands-on activities making different bodies of water. Read books about fresh and salt-water bodies.

SCIENCE AND TECHNOLOGY		
3.5 Earth Sciences (continued))	
Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
K. Identify examples of water in solid and liquid states L. Identify a variety of uses for water	 Bring to class examples of water used in a solid form and water in a liquid form Identify through drawings or speech when water is in a solid or a liquid form (ex. Ice cube, lemonade, iced tea, snow cone) 	 Expose the children to globes and maps. Plan visits to local fresh water bodies if appropriate to study the habitat and wildlife Add appropriate animals to the water table so children can recreate habitats. Bring icicles into the classroom and discuss what will happen, record how long it takes to melt, put the water back into the freezer—did it take the same amount of time to return to a solid? Put snow in the sensory table for exploration and encourage the children to describe as well as explain the changes to the pile of snow. Design a learning station to investigate water as a source of transportation.

3.6 Technology Education

- Know that biotechnologies relate to propagating, growing, maintaining, adapting, treating and converting
- Know that information technologies involve encoding, transmitting, receiving, storing, retrieving, and decoding
- Know physical technologies of structural design, analysis and engineering, finance, production, marketing, research and design

Content for Kindergarten	Examples	Supportive Practices
A. Identify examples of technology and how these impact various aspects of daily life	 The learner will: Cut out examples of technological devices from magazines, flyers, catalogs, etc. and classifying them on a poster into 3 categories: in my home, in my school, at people's workplace. Sort examples of technological devices according to shared functions, e.g., things that send pictures, things that work with numbers, things used to make food, things that send water, vehicles that carry people, etc. 	 The teacher will: Draw attention to age-appropriate examples of technology throughout the course of study of all themes or topics. Add discarded technological devices to play areas for exploration, such as, an old typewriter in the writing area, a rotary phone and pushbutton phone to dramatic play, etc. Set up projects where children can compare and contrast older technology versus newer technology, such as, make applesauce using a hand-held masher, an applesauce mill and a food -processor. Compare the effort and time it took to prepare the applesauce using each method. Utilize fieldtrips to inform children about the various forms of technology in the local community and broaden children's understanding of how such devices assist people in using less effort, using less time, creating more of something at one time, etc.

SCIENCE AND TECHNOLOGY

3.6 Technology Education (*continued*)

Content for Kindergarten	Examples	Supportive Practices
B. Identify communication methods that exist in the communityC. Discuss common use of information technology	 Learn about the varied forms of written communication by making classroom signs, following picture recipes for making paint or cooking, following picture directions for science experiments, using charts and graphs, keeping different types of journals, writing 	Supportive Practices The teacher will: Integrate the use of technology in ways that are relevant and meaningful to the children's explorations and play, such as, "If we take a picture of your block structure you will always be able to remember it. We could even write a story about it later."
including photocopying, photography and video D. Narrate drawings and sketches using computer technology	 letters to class visitors, sending postcards to their homes, using the computer for writing projects, sending e-mail to a class in another city, etc. Participate in making a classroom newsletter with the teacher's assistance or newspaper that informs others about what the children are doing in kindergarten from week to week. Use photography to document various projects or fieldtrips discussed earlier in the science standards. Use video to record something of interest to share with the rest of the class, e.g., several children may act out a story and videotape it to share with the class during a group time. Use painting programs to create a design and add text, e.g., if the children wanted to invite parents to school for a special event they could design an invitation on the computer. 	 Direct children to use technology in ways that it will help them to accomplish projects, such as, "If we type out your story on the computer, then we could print out 2 copies and each of you could illustrate the story in your own ways." Make use of learning opportunities in the local community to explore different forms of communication, such as visiting a newspaper branch, radio station, book publisher, etc. Design prop boxes from different field trips where children can role-play and integrate information gained from these experiences, such as, set up a television station prop box with interview forms, old microphones, dress up clothes, a "video camera" made from recyclables, etc.

SCIENCE AND TECHNOLOGY

3.6 Technology Education (*continued*)

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
E. Identify steps in erecting a buildingF. Develop understanding of the nature of a project as having several components that need to be coordinated	 Identify all the possible community helpers that visit the school on a regular basis or that were involved in the building of a school, playground or classroom. Visit a project under construction or watch a video of something being built or manufactured. List the steps observed. 	 Identify field trips and other resources for making this information as concrete as possible so that children can experience the concepts through active exploration, e.g., bring in a real- life example of a blue-print, invite an architect to visit the classroom or building contractor Ask thought provoking questions during the
G. Experiment with simple machines	 Visit a site through weekly photos Use toys and manipulatives to recreate the project and illustrate the different components being coordinated, such as, children could use blocks, pipe cleaners, toy vehicles to recreate 	children's explorations, "How do you suppose the water reached the new hospital? Do you think it was already there? If not, what community workers were needed? What tools would they have needed to do the work?"
H. Identify how materials might arrive at a work site	 blocks, pipe cleaners, toy vehicles to recreate the construction of a bridge or use Legos to build a miniature grocery store, delivery trucks, or milk containers etc. Develop understanding of simple machines by engaging in concrete activities at a learning station. Afterwards identify examples of simple machines in the classroom and in their homes, e.g., levers, hinges, inclines, things that 	 Set up a learning activity or station where children can simulate a real-life construction project using toys, manipulatives, recyclables, etc. Engage the children in the numerous processes of a project, such as, brainstorming ideas together, creating a blue print for the design, gathering materials, ordering or purchasing additional materials with assistance. Design a learning station where children will conduct concrete experiments to learn about simple machines, e.g., make a lever with blocks, use cylinder cans to roll an item from one end of the table to the other, use a pulley to move material, etc.

SCIENCE AND TECHNOLOGY

3.7 Technological Devices

- Explore the use of basic tools, simple materials and techniques to safely solve problems.
- Select appropriate instruments to study materials.
- Identify basic computer operations and concepts.
- Use basic computer software.
- Identify basic computer communications systems.

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Sort tools by their function	 Access appropriate tools to assist with a variety of situations, e.g., use a calculator to figure out how many of an item is needed for a project, 	 Encourage children to utilize tools throughout the classroom and with all aspects of the curriculum. Utilize a wide variety of cooking utensils.
B. Select appropriate tools and materials to solve simple problems	use a ruler to measure how much fabric is needed to make a parachute for a toy, select a magnifying glass to observe an insect	 Utilize in-depth projects that encourage children to integrate use of tools—many of the
C. Develop simple skills to measure, record, cut and fasten	 discovered on the playground, etc. Engage in a class activity where children sort classroom tools according to shared functions or uses.(bring tools from home) 	 projects listed in the science standards easily lend themselves to this approach. Provide a variety of tools for art or writing experiences, such as, hole punches, paper
D. Identify different instruments for measuring weight	Play a matching game to identify which tool each community helper uses with their work or job. Identify appropriate tools to put out for different classroom projects or science experiments.	 punches, embossers, sticker makers, crimping tools, crocodile scissors, regular scissors, plastic needles, etc. Rotate classroom tools in all areas to reflect a wide variety of tasks and functions, such as
E. Select appropriate instruments for magnifying images to study detail including magnifying glasses and microscopes		rulers, yardsticks, measuring tape, folding measuring deices, food scales, large scales, spring scales, balances, etc.

SCIENCE AND TECHNOLOGY

3.7 Technological Devices (*continued*)

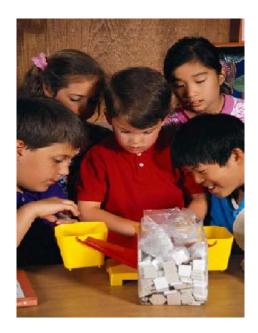
Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
F. Name major parts of the computer (screen, keyboard, mouse, disc drive, etc.)	 List and collect the tools needed to design a prop box for the classroom that reflects different aspects of life, such as, carpenter's tools, farmer's tools, medical tools, etc. 	 Take tools outdoors for children to use for investigations with nature, planting a garden, building a composting box, setting up an outdoors game, etc.
G. Use computer in a variety of applications including beginning writing and graphics, teacher-guided internet research and basic instructional software	 Make "play tools" when appropriate by studying pictures or real life items; for example, construct an imitation microscope to use in their play. Use paper and markers to design an imaginary tool or device to do a chore or task in their life. 	 Model the appropriate technological terms while working with children at the computer. Guide children in learning the basic functions of the computer, such as, how to turn it on, how to find programs on the desktop, how to insert a disk properly, etc.
H. Access information via a web browser with teacher support	 Have regular computer access during play and structured parts of the day. Select from a variety of activities on the computer that interest him or her. Use the computer to enhance other learning 	 Utilize the computer to enhance other project that are taking place in the classroom; e.g., C data collected from a science experiment be inserted into computer generated charts or graphs?
I. Explore personal communication via E-mail	 that is taking place in the classroom, such as, create an order form to use with a postal service prop box. Send an e-mail to a parent, relative or friend with teacher assistance. 	 Draw attention whenever appropriate to the many uses for computers in everyday life. Point out the applications of computers while taking fieldtrips to various places. Label computer parts and/or hang a wall poster
	• Use computer vocabulary while working at the computer.	
	 Identifying topics to explore using a web browser with teacher support and using this information to solve a problem, augment a project, make a book, etc. 	

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Environment and Ecology





	<u>Standard</u>	<u>Page</u>
4.1	Watersheds and Wetlands	151
4.2	Renewable and Nonrenewable Resources	152
4.3	Environmental Health	153
4.4	Agriculture and Society	154
4.6	Ecosystems and their Interactions	155
4.7	Threatened, Endangered and Extinct Species	156
4.8	Humans and the Environment	157
4.9	Environmental Laws and Regulations	158
	-	

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4.1 Watersheds and Wetlands

- Identify various types of water environments
- Explain the differences between moving and still water

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify different bodies of water (e.g., creeks, rivers, streams, ponds, lakes, swamps, ocean)	 Describe the differences between bodies of water, such as ocean, river, lake, puddle 	 Read fiction and non-fiction books to describe different bodies of water.
B. Begin to understand the differences between moving and still water	 Identify different bodies of water as seen in pictures and books. 	 Provide photographs of different bodies of water.
	 Participate in experiments to determine how water moves 	• Take class on field trips, whenever possible, to experience first hand different bodies of water .
		 Provide opportunities for learners to participate in experiments to understand the movement of water.

4.2 Renewable and Nonrenewable Resources

- Identify needs of people (basic)
- Identify products derived from natural resources
- Know that some natural resources have limited life spans

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Identify needs of people (basic)	 Distinguish between people's needs and wants. Describe people's basic needs such as sleep and food, shelter, water 	 Facilitate class discussions to generate a listing of peoples' basic needs.(explore why) Talking with children about the origin of
B. Identify products that come from nature	 Distinguish between something in its natural state and in its manufactured state. (ex cotton to clothes) Listen to and discuss stories that describe where 	 where things come from Read related fiction and non-fiction books (read Little Red Hen or Pancakes, Pancakes).
	things come from, such as sheep's wool and sweater; milk and cheese; tree and paper/furniture; apples and	 Facilitate discussions on the importance of water and ways to conserve it.
C. Identify ways to conserve	applesauce.Generate ways to conserve water at home, in school.	 Help learners understand what can be recycled and reused.
	 Create illustrations, posters, and/or murals showing ways to save water. Describe effects of pollution, such as cars' pollution 	 Recycle materials in the classroom. Help learners understand the hows and whys of recycling.
	on air, water pollution on fish).Sort objects into those things that can be recycled and those that cannot.	 Take class on a field trip to or watch a video about a visit a recycling center. Read related non-fiction and fiction books.
	Bring items to school that recycle at home	 Facilitate experiments that demonstrate the effects of pollution (oil spills, excessive noise).

4.3 Environmental Health

- Know that plants, animals, and humans are dependent on air and water
- Identify how human actions affect environmental health

Content for Kindergarten	Examples	Supportive Practices
	The learner will:	The teacher will:
A. Know that all living things need air and water to survive	 Observe and describe plants growing in different experimental conditions. 	 Facilitate class discussions describing the need of all living things to have air and water.
	 Create a list of things that litter the local environment. 	 Provide opportunities for learners to observe and record the growth of plants with and without water and with and without air.
B. Identify litter and its effect on the environment	 Take a walk around the school or school grounds and pick-up any litter. 	 Read related non-fiction and fiction books. Have a class pet or plant
	 Participate in a discussion about the effects of litter on the environment. 	Have a class pet or plantRead related non-fiction and fiction books.
	 Share with class areas seen littered 	 Facilitate class discussions about litter and its effect on the environment.
		 Help students create a "litter corner" in the room for discussion on effects to classroom

4.4 Agriculture and Society

- Know the importance of agriculture to humans.
- Identify the role of the sciences in Pennsylvania agriculture.

Content for Kindergarten	Examples	Supportive Practices
A. Understand the importance of agriculture	Ĭ	 The teacher will: Provide concrete experiences and examples of how and where food comes from. Take class on a trip to visit a local farm, dairy, and/or grocery store to see where food comes from. Invite a guest farmer and/or master gardener to visit the classroom to share what they do. Provide photographs of Pennsylvania farms. Read related informational and fiction books
B. Identify the components of the farming system, (farmer's role, animals, buildings, land).	 Create and label illustrations that show farm products. Interview a visiting farmer or master gardener about what they do. 	to expand and deepen background knowledge.Show a video about farm animals.

4.6 Ecosystems and their Interactions

- Understand that living things are dependent on nonliving things in the environment for survival
- Understand the concept of cycles

things • Create a list of living and nonliving things. • What is nonliving. • Describe ways in which living things are dependent on nonliving things for survival. • Facilitate conversations about the survival needs of living things- those that are living and those that are nonliving. • Illustrate and/or describe the cycle of day and night. • Display living and non-living items, such a rocks, plants, pets, shells, insects.	Content for Kindergarten	Examples	Supportive Practices
	A. Identify and categorize living and nonliving	 The learner will: Sort living and non-living things. Create a list of living and nonliving things. Describe ways in which living things are dependent on nonliving things for survival. Illustrate and/or describe the cycle of day and 	 The teacher will: Help learners understand what is living and what is nonliving. Facilitate conversations about the survival needs of living things- those that are living and those that are nonliving. Display living and non-living items, such as rocks, plants, pets, shells, insects. Read related non-fiction and fiction books. Read books that illustrate a cyclical pattern

4.7 Threatened, Endangered and Extinct Species

- Identify differences in living things
- Know that adaptations are important for survival

Content for Kindergarten	Examples	Supportive Practices	
	The learner will:	The teacher will:	
A. Identify differences in plants and animals	• Describe ways in which living things are alike and how they are different.	 Provide many opportunities for learners to observe, describe and compare animals and plants. 	
	 Recognize and describe the differences between plants and animals. 	 Provide a variety of opportunities to classify, match, sort, and graph plants and animals. 	
B. Explain how specific adaptations can help a living organism to survive	 Describe how different animals and people adapt to the seasonal temperature change Describe the way in which the body structure of certain animals helps them survive in their environment (e.g., web feet, long neck of the giraffe, beaks). 	 match, sort, and graph plants and animals. Read non-fiction to expand and deepen background knowledge. Help students understand how living things adapt in order to manage change in their environment and for their own survival. Help students understand the adaptive body structures of certain animals to their environment. Read non-fiction books to expand and deepen background knowledge. 	

4.8 Humans and the Environment

- Identify the biological requirements of humans
- Explain how human activities may change the environment

Content for Kindergarten	The learner will:	The teacher will:
	The learner will:	The teacher will:
A. Explain how humans can change their environment or their behavior to live	 Describe how peoples' clothing and specific activities change according to the different seasons. Draw and describe ways in which peoples' helperious and describe ways in which peoples' 	 Facilitate class discussions about the range of opportunities humans have to alter their environment and/or behavior
B. Identify human activities that affect the environment	behaviors are different during the night and day .	 Read literature to expand and deepen background knowledge.
environment	 Describe safety precautions which are used in the dark 	 Bring clothing to school worn in different seasons/weather
	 Describe protective clothing and shelter. 	
	 Sort clothing by climate attributes 	 Support learners in looking for and finding community improvement activities.
	 Take care of a garden, plant flowers or trees, put up a bird house, start a compost pile, and/or begin a recycling effort in the school, etc. And describe the impact it has on the environment. 	 Facilitate class discussions describing ongoing environmental changes.

4.9 Environmental Laws and Regulations

Fourth Grade Standards

• Know that there are laws and regulations for the environment

The learner will:	Examples	Supportive Practices
The learner will: A. Understand how laws and regulations can protect the environment	Examples The learner will: • Discuss the importance of following rules. • Describe ways in which the environmental laws and regulations are helpful. • Discuss good environmental practice	 The teacher will: Facilitate class discussions about the importance of having laws and regulations to ensure the well being of all. Facilitate class discussions specific to environmental laws and regulations. Invite people who hold jobs dealing with the
	 Describe how polluting waterways or air will impact natural resources (fish, crops, air). 	environment (e.g., recycling and waste reduction) into the classroom to describe what they do and why it is important.





	<u>Standard</u>	<u>Page</u>
5.1	Principles and Documents of Government	161
5.2	Rights and Responsibilities of Citizenship	162
5.3	How Government Works	163
6.1	Economic Systems	164
6.2	Scarcity of Choice	165
6.5	Work and Earnings	166
7.1	Basic Geography Literacy	167
7.2	The Physical Characteristics of Places and Regions	168
7.3	The Interaction Between People and Places	169
8.1	Historical Analysis and Skills Development	170
8.3	United States History	171

The foundation for social studies, economics, history and the workings of government begin with children's personal experiences and their initial understanding of themselves in relation to their families, homes and schools. Gradually, students expand their understanding to include communities and the larger world. As their perception grows, they further expand this scope to understand how systems work together. Teachers facilitate children's social studies skill development by helping them engage in active investigations that build knowledge and understanding.

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SOCIAL STUDIES-Civics and Government

5.1 Principles and Documents of Government

- Discuss what government is
- Explain the purposes of rules and laws and why they are important in the home, classroom, and community

Content for Kindergarten	Examples	Supportive Practice
	 The learner will: Discuss how rules help to keep us. Identify rules in school related to fire drills, lunch, walking in the halls, bus safety, classroom., playground, etc. Explain what happens when rules are broken. Suggest several rules which could make the classroom or the school a better place to work and play. Demonstrate respect for authority by following 	 Supportive Practice The teacher will: Arrange for students to take a "special bus ride" where there is a focus on bus safety rules and an explanation about why bus safety rules are important. Take students on a campus walk to identify important safety considerations and the rules associated with such matters as crosswalks, bus waiting areas, playground, restrooms, etc. Provide for structured opportunities for children to see the relationship between rules,
	 classroom and school rules. Understand that the proper exercise of authority is a form of government. 	 children to see the relationship between rules, order, authority, and the existence of governance. Have bus driver visit class to discuss and demonstrate bus safety

SOCIAL STUDIES - Rights and Responsibilities of Citizens

5.2 Rights and Responsibilities of Citizenship

- Identify personal rights and responsibilities as they pertain to home, classroom, and society
- Identify civic responsibilities

Content for Kindergarten	Examples	Supportive Practice
	The learner will:	The teacher will:
A. Identify personal rights and responsibilities at school	 Demonstrate the ability to maintain his/ her personal materials in an orderly manner. Honor the space and personal property rights of fellow learners. Help care for classroom and school equipment, tools, materials, and environment. Understand that respect for others is a responsibility of being a member of a group, such as a classroom group or a school group. List examples of behaviors that demonstrate good citizenship Recite a bully free pledge 	 Define the expectations for maintaining order and cleanliness in the classroom and at individual work areas Help learners by defining expectations relative to maintaining order and cleanliness as a learner in the classroom. Recognize learners who demonstrate traits of good citizenship and character. Provide an opportunity for learners to talk about or draw pictures of others doing "good deeds". Support the children in understanding that everyone has a right to be happy and secure in school. Use "what if" scenarios Support the children in understanding that everyone has the right to be free from teasing and bullying. Help learners select a school in the school building or in the classroom that will improve those environments.

SOCIAL STUDIES

5.3 How Government Works

Third Grade Indicators:

Identify services performed by government

Content for Kindergarten	Examples	Supportive Practice
	The learner will:	The teacher will:
A. Identify services performed by, but not limited to local government	 Examine pictures of government workers performing service to the community in order to identify what services government performs. 	 Invite various "guests" to talk with the children about how they help establish or maintain rules (i.e. principal, school police, etc.) or invite persons who provide government services (fireman, postal worker, street maintenance, etc.). Invite principals, childcare directors, parents to speak about importance of rules because these people can be more familiar Collect and display pictures of government workers providing services to the community. Read various stories that demonstrate government services personnel.

SOCIAL STUDIES – Economics

6.1 Economic Systems

- Describe how families, school, and communities with limited resources make choices
- Identify local economic activities (employment)
- Identify local businesses opening or closing

Content for Kindergarten	Examples	Supportive Practice
	The learner will:	The teacher will:
A. Identify the role of people in a community and what they do to make a living	 Match simple descriptions of work which people do in a community with pictures illustrating the jobs. Recognize how jobs are similar and different. Practice exchanging play money for make believe goods to demonstrate the process of buying and selling. Identify reasons people might save money for the future. Discuss the difference between goods and services and compile a list of each category. Give examples of how people can be both buyers and sellers of goods and services. Identify different kinds of resources (human, natural, and capital) that help us provide for our needs and wants. Listen to various stories about community helpers and various jobs. 	 Read and discuss trade books describing different jobs. Discuss why people have to work and what motivates them to do their work. Invite parents and/or community members to share their work. Create any number of classroom simulations that involve economic decision-making in the family, school or community. (e.g., set-up a supermarket or other store in the classroom). Read and discuss trade books describing producers and resources (natural, human, capital). Take learners on a tour of the community while highlighting what each business does, how it serves the members of the community and its length of existence.(video, JA people) Provide various pictures from magazines which can be used by learners to identify various kinds of resources.

6.2 Scarcity and Choice

- Identify scarcity and limited resources
- Identify needs of people
- Identify wants of people
- Explain how wants are often confused with needs in making choices

Content for Kindergarten	Examples	Supportive Practice
	The learner will:	The teacher will:
A. Identify scarcity as the concept that all resources are limited (i.e., why all of us can't have everything we want)	 Recognize the difference between basic needs and wants by providing common examples of each consideration. Explain how scarcity often prevents us from having everything we want or need. Practice the process of making wise choices involving needs and wants. Identify from pictures the needs and wants of people. 	 Create activities in which learners gain practice and insight into making wise choices by identifying the needs and wants of people, realizing this is a difficult concept. Provide pictures for learners to use in the process of clarifying the difference between needs and wants-use Maslow's Hierarchy of Needs Help learners reflect on how wants are sometimes confused for needs. Use graphic organizer to elicit learner's ideas of wants and needs

SOCIAL STUDIES - Economics

6.5 Work and Earnings

- Explain why people work to get goods and services
- Identify different occupations

Content for Kindergarten	Examples	Supportive Practice
	The learner will:	The teacher will:
A. Explain why people work	 Explain why adults work. Identify the occupation of parents, caretakers, and/or other known adults. Name occupations and what they do. Identify an occupation that he/she likes Draw a picture and write about an occupation Dress like a worker for a particular occupation. 	 Create a list of the things people use money to purchase. Read various stories about occupations. Invite guests into the classroom to describe their occupations(especially parents) Read various stories about occupations Bring in clothing of particular occupations

SOCIAL STUDIES - Geography

7.1 Basic Geography Literacy

Third Grade Standards:

Identify geographic tools and their uses

Content for Kindergarten:	Examples	Supportive Practice
Content for Kindergarten: A. Identify the following geographic tools: maps, globe, map elements, diagrams, and photographs, map key	ExamplesThe learner will:• Use maps as tools that show actual representations of real places.• Use maps to identify and locate familiar places or objects within the classroom or school environment.• Make maps, using blocks or paper and pencil to represent familiar places such as the classroom, the school playground, or their home environment.• Use maps or pictures to identify relationship, such as what object or place is located near some other object or place.	 Supportive Practice The teacher will: Create authentic situations in which students practice using a map to get quickly and efficiently from one place to another (i.e. how to get to the bathroom, the playground, the office, the lunchroom, etc). Support learners in the construction/building of a three-dimensional representation of a familiar environment such as their bedroom, classroom, or playground. Provide learners with high quality developmentally appropriate geographic tools.

SOCIAL STUDIES – Geography

7.2 The Physical Characteristics of Places and Regions

Third Grade Standards:

• Identify the physical characteristics of places

Content for Kindergarten	Examples	Supportive Practice
	The learner will:	The teacher will:
A. Identify physical characteristics of places, noting physical properties (landforms such as swamps, hills, and mountains), bodies of water such as creeks, rivers, ponds, lakes, and human forms such as highways, streets, buildings, bridges	 Respond to pictures of places by describing the physical characteristics. Discuss the impact the physical features of an environment have on the people who live there. Distinguish between human forms, such as roads and buildings, and physical characteristics. Create land and water with clay, colored saran wrap, cardboard, etc. 	 Take learners on a walking tour of the playground, neighborhood, and/or another local site and discuss the physical features. Show videos for better understanding

SOCIAL STUDIES - Geography

7.3 The Interaction Between People and Places

- Identify the impacts of physical systems on people
- Identify the impacts of people on physical systems

Content for Kindergarten	Examples	Supportive Practice
	The learner will:	The teacher will:
A. Identify how physical systems impact people (e.g., soil quality for agriculture)	 Discuss how the temperature gets warmer or colder as the seasons change and how these seasonal changes cause people to respond. Discuss how farms are displaced by housing developments and shopping centers and how this impacts our society. Discuss the way in which natural resources help us produce things needed to live e.g., rich soil, pure streams). Create a list of things people do to negatively impact the environment. 	 Take learners to places where they can appreciate human and/or natural resources (e.g., farms, greenhouses). Create an opportunity for learners to grow plants with different soil conditions and to discuss ways to positively influence the environment. Investigate the idea of creating a composting pile. Establish a school or classroom recycling initiative. Share clothing changes for outdoor versus indoor activities

SOCIAL STUDIES - History

8.1 Historical Analysis and Skills Development

- Distinguish between past, present, and future.
- Develop an understanding of historical sources.
- Understand fundamentals of historical interpretation.

Content for Kindergarten	Examples	Supportive Practice
A. Understand chronological thinking through	The learner will:	The teacher will:
days, weeks, months, years (calendar time)	 Create a personal timeline with photographs and/or drawings from birth to present. 	 Use a class calendar to chart the weather recording to support learners in thinking about the past, present, and future.
B. Begin to develop an understanding of historical interpretation.	 Practice past, present and future time with a classroom calendar and daily monthly weather recording. Place photographs of school and classroom events in order based on when the event happened. Inquire about history through the process of meeting and talking with grandparents and senior citizens in the community. Dramatize stories of history 	 Provide opportunities for grandparents and senior citizens to visit the classroom to provide learners with living history lessons (Take field trips) Take and collect photographs of various class and school for learners to order by days, weeks, months, or years. Expose learners to historical interpretation through storytelling, folklore, and national holiday celebrations. Use videos about Plymouth Rock, Sturbridge Village, Willliamsburg, invite Reenactors to class, show video or read book <i>The Oxcart Man</i> (Reading Rainbow)

SOCIAL STUDIES - History

8.3 United States History

- F. Identify contributions of individuals and groups to United States history
- G. Identify and describe primary documents, materials artifacts and historic sites important in United States history

Content for Kindergarten	Examples	Supportive Practice
A. Identify important individuals that contributed to United State history.	 The learner will: Identify George Washington as the first President of the United States. Identify the current President of the United States. Recognize the Pilgrims as one of the first groups of settlers in the United States. Understand the Native Americans were living in the United States before any settlers arrived. Identify the United States Flag. Name the colors in the United States Flag. Recite the Pledge of Allegiance. Recognize the tune of the National Anthem and show respect for the song. Sing America the Beautiful, My Country 'Tis of Thee 	 The teacher will: Read and discuss literature about George Washington. Show illustrations and dollar bill Introduce the President of the United States with literature, pictures and perhaps video clips of televised appearances. Read, retell, and recreate the Thanksgiving story involving the Pilgrims and Native Americans. Give opportunity to make a replica of the flag. Introduce the Pledge of Allegiance and make time to recite it daily. Introduce the National Anthem as an important song of the United States.

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GLOSSARY OF TERMS FOR KINDERGARTEN STANDARDS

Concepts of Print

Does your learner know that...? Print carries the message Print goes left to right One to one match with voice to print Concept of first and last Concept of letter, word, sentence Letter order in words is important Different punctuations have meaning

Decoding – analyzing text in order to identify and understand individual reading

Developmentally Appropriate Practices – the way children are given opportunities to learn and produce new skills. The children are challenged but not beyond their level of mastery. Psychological and physical needs are met.

Echo Reading - reading of a text where an adult or an experienced reader reads a line of text and student repeats the line

Emergent Literacy – one stage of literacy development; reading and writing behaviors that precede and develop into convention and literacy

Expressive Language – being able to convey messages using words

Fine Motor- demonstrate increased control of hand and eye coordination; using hands and fingers such as in writing, painting, drawing, molding clay, pinching clothespins

Guided Reading – teachers work with students at their instructional level to guide them in using context, visual and structural cues within stories to generate meaning; guided reading is conducted for a smaller number of students and focuses more on individual reading needs of each child

Higher Level Thinking/higher order questions- instead of just asking to recall information, ask the learner to restate in own words, apply what was learned, analyze information, or create something; using open-ended questions

Language Experience – reading own writing; teacher takes dictation from students or students do own writing. Use student's own words as reading material; an effective way to encourage self-expression and build awareness of the connections between oral and written language

Learning Styles- Visual (learn through seeing); needs to see the teacher's body language and facial expression to fully understand the lesson content

Auditory (learn through listening) – learns through lectures, discussion and listening and needs to talk things through Tactile/Kinesthetic (learn through moving, ding and touching) – learns best through a hands-on approach actively exploring the

physical world around them

Multiple Intelligences - Howard Gardner's theory of seven intelligences

Visual spatial-ability to perceive the visual Verbal-linguistic – ability to use words and language Logical/mathematical – ability to use reason, logic and numbers Bodily/kinesthetic – ability to control body movements and handle objects skillfully Musical/rhythmic –ability to produce/appreciate music, sound, rhythm Interpersonal- ability to relate and understand others; other people's feelings Intrapersonal – ability to self-reflect and be aware of one's inner state of being; self-awareness Naturalist -

Onset – sound in word that comes before the vowel

Phonemic Awareness – ability to hear and identify parts of spoken language and auditorily divide into phonemes

Phoneme – sound unit of speech

Phonics – a way of teaching reading that stress sound symbol relationship; refers to the relationship between the letters and letter sounds of a language

Phonological Awareness – a broad term that includes phonemic awareness. In addition to phonemes, phonological awareness refers to larger spoken units such as rhymes, words, syllables, and onsets and rimes

Picture Walk – a pre-reading strategy that is an examination of the text looking at pictures to gain an understanding of a the story and to illicit story related language in advance of reading the story

Print Awareness – ability to understand how print works

Reading Awareness

Uses the language of literacy (top, bottom. same, different, etc); Identifies the beginning, middle, and end of a story, with the main idea coming first and details added later; Demonstrates awareness that language can be written down and read later Differentiates between pictures and words Shows curiosity about environmental print Shows curiosity about environmental print Differentiates between pictures and words

Receptive Language – being able to receive and give meaning to message/words heard

Rime – part of a syllable that contains vowel and all that follows

Shared Reading – teacher guides the entire class through stories with a high level of support; sharing and reading a story together (echo reading, choral reading, or fill the gap reading)

Shared Writing – teacher and learner work together to compose a message or story



Appendix- Kindergarten Committee Participants

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