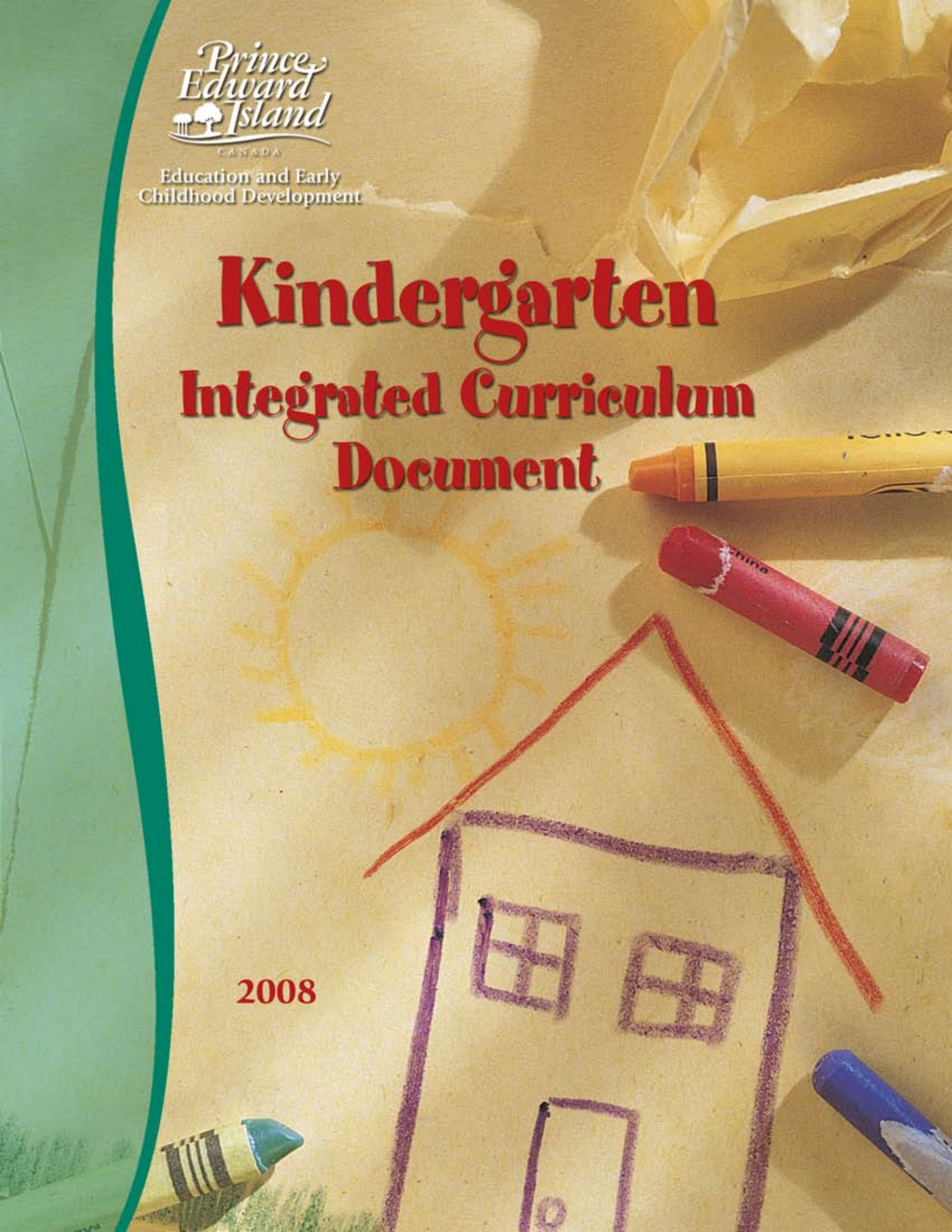




Education and Early
Childhood Development

Kindergarten Integrated Curriculum Document

2008



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Foundation

Vision

*The Kindergarten program of Prince Edward Island
fosters children's growth and learning:
socially, emotionally, intellectually, physically, and creatively,
to become lifelong learners in an environment
that is nurturing, play-based, and developmentally appropriate.*

Philosophy

Kindergarten is a child-centred, developmentally appropriate, early childhood program for children in the year prior to grade one. The purpose of kindergarten is to nurture the continuing growth of children's knowledge and understanding of themselves and their world by providing a safe, caring, and stimulating environment where learning flourishes.

The kindergarten program on Prince Edward Island recognizes that children are individuals and that every child is unique. The program accommodates the broad range of children's needs, as well as their learning rates and styles, which facilitates continuous learning. This is accomplished through an integrated curriculum, that incorporates a variety of instructional models, strategies, and resources.

Integration is above all a practice that is not learned or taught, but is lived.

Curriculum integration provides educators with a practical approach to connect outcomes in a meaningful way. It is a holistic approach that reflects the real world and prepares children for lifelong learning. Integration is above all a practice that is not learned or taught, but is lived.

The kindergarten program values the development of the whole child by recognizing

- the individual and social nature of learning
- that children learn through active involvement and meaningful play
- the importance of developmentally appropriate practices that enhance children's learning
- the significance of all areas of development
- the early years as the strong foundation for lifelong learning.

It takes a village to raise a child.
- African Proverb

The kindergarten program views assessment and evaluation as integral components of the teaching/learning process. This supports the child's learning and assists the educator in making developmentally appropriate educational decisions.

The kindergarten program values educators and families as partners in a child's education. Educators and families collaborate to create a climate of respect, success, and joy for *lifelong learning*.

Introduction

Early childhood is a significant period in human development. Independence, decision making, creativity, the ability to learn, the ability to relate to others, and feelings of self-worth all have their beginnings in early childhood.

Kindergarten on Prince Edward Island has been and continues to be an integral component of the early childhood system. Working with families and communities, dedicated early childhood educators have been delivering kindergarten programs on Prince Edward Island since the 1960's.

Following the submission report of the PEI Task Force on Education in March 1992, government established a Steering Committee to guide reforms to the education system. Five working groups were established to address specific issues, one of which was a group to look at Age of Entry and Kindergarten.

As a result of this report, in October 1993, Executive Council requested that a Kindergarten Curriculum be established. Responsibility was given to the Child Care Facilities Board, and a committee was struck consisting of two early childhood centre supervisors, two grade one teachers, one staff member from Health & Social Services, and one consultant from the Department of Education.

While this committee began work immediately, information soon became available to the committee on the work being done by the Atlantic Provinces Education Foundation (APEF). The decision was made by the committee to wait for the Atlantic Curriculum for entry-grade 12 that was being developed by the Atlantic Provinces Education Foundation.

In the fall of 1998, the APEF English Language Arts and English Mathematics Curricula became available, and the Kindergarten Curriculum Committee was re-struck to develop a process for implementation.

In April of 2000, a community-based, publicly funded Kindergarten program was established on Prince Edward Island. This included the introduction of the APEF curriculum documents and supporting resources to English Kindergarten programs. The development and implementation for French and French Immersion curricula followed in 2001-2003.

The Department of Education and Early Childhood Development collaborated with the former Department of Health and Social Services, the community, early childhood educators, owners/operators, and others in developing the provincial

program. The Department of Education and Early Childhood Development is responsible for core funding to kindergarten programs as well as curriculum development, implementation, and support.

The purpose of this document is to provide kindergarten educators on Prince Edward Island with a curriculum that is integrated and supports a play-based, developmentally appropriate approach. Educators will continue to follow the lead of the child in their programming and planning, using the outcomes to guide them, recognizing that all children enter kindergarten at different stages of development.

The Child, The Lifelong Learner

Each child is unique with his or her own interests, strengths, and learning styles. The following outlines some common developmental characteristics of the kindergarten child. These in turn can support the educator in the planning of an integrated, child-centred learning environment.

Creative Development

Most kindergarten children

- have vivid imaginations, a sense of wonder, and enjoy creating.
- draw, paint, and build spontaneously to express themselves.
- describe and name what has been drawn, painted, or constructed.
- may show imaginative and creative ways to move and dance as they respond to music and rhythm.
- express their imagination and creativity when participating in dramatic play activities.





In order to enhance creative development using an integrated kindergarten curriculum, the educator

- invites children to create and communicate with a variety of materials.
- provides a variety of drawing, painting, and construction supplies and invites children to express themselves creatively.
- displays children's creations along with other works of art, photographs, and paintings.
- provides opportunities for creative movement, dance, and other responses to music and rhythm.
- provides opportunities for children to dramatize their favourite books, poems, or songs, as well as to create their own role-plays.

Physical Development

Most kindergarten children

- have good motor control, generally with large muscles developing before small muscles.
- increase their ability to control and coordinate movements, such as running, jumping, lifting, carrying, balancing, throwing, catching, and building with blocks and boxes.
- develop the skills required to manipulate small materials such as writing tools, scissors, and shoe-laces.
- find sitting still for extended periods of time difficult, and they therefore need a balance of active and quiet times.





In order to enhance physical development using an integrated kindergarten curriculum, the educator

- provides a variety of developmentally appropriate activities, materials, and equipment that support large muscle development such as obstacle courses, hula-hoops, climbing equipment, balls, parachutes, etc.
- provides activities to develop small muscles at a variety of learning centres, using developmentally appropriate materials or equipment such as puzzles, string beads, tools (pencils, paint brushes, crayons, scissors, etc.) play dough, small blocks, cars, etc.
- allows time and opportunities for children to develop self-help skills, such as dressing, zippering, snapping, tying, etc.

Social/Emotional Development

Most kindergarten children

- need recognition for accomplishments, respond to praise and encouragement, and are anxious to please.
- find security in routines.
- like to talk, but are learning to listen purposefully to others, to share, and to take turns.
- play best in small groups.
- need to belong and see the friendship of other children.
- will seek adult support and approval to adjust to unfamiliar situations.





In order to enhance social/emotional development using an integrated kindergarten curriculum, the educator

- provides opportunities for children to choose from a variety of individual and small group activities.
- guides and encourages children to take risks such as joining groups, trying something new, participating in group discussions, etc., and supports their efforts.
- observes and acknowledges children's behaviour and language as they develop their ability to interact with others in various situations.
- encourages development of independence by providing opportunities to make choices, decisions, and use problem-solving skills while learning to be a part of a group.

Intellectual Development

Most kindergarten children

- learn at their own rate through active, meaningful, and hands-on exploration as well as through interaction with other children and adults.
- learn through the five senses by doing, experiencing, observing, questioning, imitating, examining, exploring, and investigating.
- like to finish what they start, but can carry work over from one day to the next.
- are learning to make choices and follow through, but often think and act in the here-and-now.
- are increasing their memory and attention span.





In order to enhance intellectual development using an integrated kindergarten curriculum, the educator

- provides hands-on activities and materials to help children apply and test their understanding.
- engages children in many opportunities to act out and build on previous experiences.
- plans activities building on the individual needs and interests of the children.
- observes, accepts, comments on, and values children's efforts.
- provides opportunities for children to experiment, explore, and investigate using all their senses.

Language and Literacy Development

Most kindergarten children

- are eager to use language orally and in print.
- demonstrate a rapid growth in language development as they interact with and imitate their peers, the educator, or other adults.
- enjoy experimenting with different sounds of language as they begin to express ideas through their pictures and writing.
- ask numerous questions to clarify knowledge.
- are interested in exploring books and being read to.
- are particularly interested in stories/poems that rely heavily on rhyme and rhythm.





In order to enhance language and literacy development using an integrated kindergarten curriculum, the educator

- provides many opportunities for purposeful talk as children work together in pairs, small, or larger groups.
- prolongs and expands children's conversations by joining in, asking open-ended questions, and challenging them to extend their conversation.
- interacts frequently with each child on a personal and informal basis.
- provides a variety of media such as audio recordings, educational films, artwork, informative books, posters, poems, etc.
- provides daily opportunities for children to develop phonological awareness through music and movement, singing, reading, rhyming, playing with language, etc.
- provides daily opportunities for children to learn about and engage in reading and writing activities (daily message, read-a-louds, big books, guided reading, shared writing, guided writing, etc.)
- engages children in conversations about their learning.

Numeracy Development

Most kindergarten children

- react in a positive way when faced with finding solutions.
- problem solve in their own way, not relying on methods/solutions used by others.
- are starting to show an understanding of cause and effect.
- are starting to identify and describe similarities and differences between things/situations in their environment.
- are naturally curious and imaginative, ready to question, explore, create, and invent.





In order to enhance numeracy development using an integrated kindergarten curriculum, the educator

- plans learning activities that help children understand that there can exist more than one solution to any given problem that can be discovered through teamwork and/or cooperation.
- encourages mathematical thinking and reasoning by asking open-ended questions.
- provides children with opportunities to share their knowledge, experiences, and problem-solving strategies with others.
- observes, supports, and challenges children in their problem-solving process.
- integrates mathematical vocabulary and processes in daily learning centre activities.
- observes children as they choose and use materials and adjusts teaching strategies in order to meet children's needs.

Play

*“Children play in order to understand the world around them,
to express themselves, and to practice new skills.
Play contributes to children’s physical and social knowledge,
logical understanding, and sense of self-worth.”*
(Empowering Children, Dale Shipley, c. 1993.)

Play and Learning

It is through play that much of children's early learning is achieved. The physical, social/emotional, and intellectual development of children is dependent upon activity. Therefore, opportunity for play is a key aspect of the kindergarten program. Through touching, manipulating, exploring, and investigating, children find out about the world around them. Through indoor and outdoor play, they develop their imagination, creativity, learn how to solve problems, and work cooperatively. Play should be seen as an essential experience that extends, enhances, and enriches a child's learning.

Play and active involvement are fundamental to a good kindergarten program. Through the process of play, children learn to represent their real and imagined worlds using listening, speaking, reading, writing, role playing, painting, drawing, building, measuring, estimating, and exploring. The kindergarten educator uses play as an essential learning experience that supports, sustains, facilitates, extends, enhances, and enriches the child's learning.

"Play is a behaviour that is self-motivated, freely chosen, process oriented, and enjoyable."

(Hilda Jackman, Early Education Curriculum)

Many researchers have identified stages of social play. Understanding these stages of play will guide educators in planning developmentally appropriate play-based activities.

- **Unoccupied behaviour** involves a child moving around the room, going from one area to another, observing, but not getting involved.
- In **Onlooker play**, children watch other children playing, ask questions, and make suggestions but do not enter into the play.
- In **Solitary play**, children play alone and independently following their own interests without reference to others.
- In **Parallel play**, children play beside each other with similar materials.
- **Associative play** occurs when children play with each other, sharing similar materials and activities in an unorganized way.
- **Cooperative play** is the social form of play and involves children playing together in a shared activity.
- In **Symbolic play**, children use one thing to represent another.

Symbolic play is the stage of play used by many kindergarten children. Playing with language/literacy and numeracy is an important component of symbolic play. Developmentally appropriate teaching includes creating environments that facilitate learning through meaningful play. Playing with oral language (ex. songs, rhymes, finger plays), written language (ex. writing a doctor's note in dramatic play or open/close

signs for learning centres), numbers (ex. using number cubes when playing games), and shapes (ex. puzzles and pattern blocks) lays a strong foundation for the development of concepts and skills as children begin to understand and make sense of their world.

Piaget and Vygotsky maintain that children's learning is influenced by developmental and social factors. According to Piaget, it is through play that children construct a sense of order and meaning out of their environment. They are constantly organizing and re-organizing new information and experiences. For Vygotsky, learning occurs through social interactions and within a child's zone of proximal development. The zone of proximal development can be thought of as an area in which children experience a challenge as they pursue a task, but do not become frustrated. (Isenberb & Jalongo, 1997.) Social interaction and children's play are the two ways the zone is activated.

"Children expand their knowledge of the world through play."
Owocki, 1999

Experience has an effect on children's play. In kindergarten, there may be some children who do not know how to play constructively and imaginatively. They engage in physical activities such as climbing, running, or swinging, but are not able to concentrate very long or develop an idea through several levels of play. The natural tendencies to investigate and ask questions may not have been encouraged. Therefore, it is important to scaffold children's play by asking open-ended questions and engaging in play activities with the child.

Children who have achieved a degree of self-confidence, appropriate social skills, and self-direction are ready to engage in the kind of sustained play that enables significant growth in knowledge and understanding.

Meeting the Needs of All Children

The Prince Edward Island kindergarten program is based on the belief that all children can learn. Children's development is shaped by many factors, including gender, social and cultural backgrounds, and the extent to which individual needs are met. The Prince Edward Island kindergarten curriculum is inclusive and is designed to help all children reach their developmental goals through equal opportunities and a wide variety of learning experiences. In planning for children, educators should consider the learning needs, experiences, abilities, interests, and values of all children and their families.

Special Needs

A developmentally appropriate kindergarten program is based on knowledge of child development and how children learn. Instructional strategies that grow out of observational data and the use of play as a way of learning should be able to accommodate all children including those with special educational needs (diagnosed special needs, gifted, etc.). The kindergarten program promotes the development of understanding, respect, and appreciation of individual differences in children. Some young children have intellectual, emotional, sensory, communication, and/or physical needs that affect their learning.

To ensure successful learning for all children, modification and enhancement of the learning environment may be considered. This might include modification of instructional strategies, materials, and/or equipment. Educators may collaborate with families, colleagues, and other professionals to coordinate appropriate learning experiences that help meet the identified special educational needs of children. By creating environments in which each child's ability and unique contribution are recognized and celebrated, we honour not only the abilities but also the unique needs of *all* children.

English as an Additional Language (EAL)

English as an Additional Language learners are primarily from homes in which English is not the first language of communication. This would include some immigrant children and children born in this province whose first language is not English or French.

Children from EAL homes may begin kindergarten with limited experience in the English language. The challenge for kindergarten educators is to meet the language development needs for all children in a child-centred kindergarten program. All children begin language acquisition in the home, whether it is English or any other language. If home experiences have

developed children's abilities to speak and listen, they will be equipped to apply their knowledge about how language works when acquiring a second language. Children who have developed competency in their first language may understand the purpose of an alphabet, as well as print directionality. Children who have been read to in their first language may already understand that print conveys meaning and that reading is a meaning-seeking process.

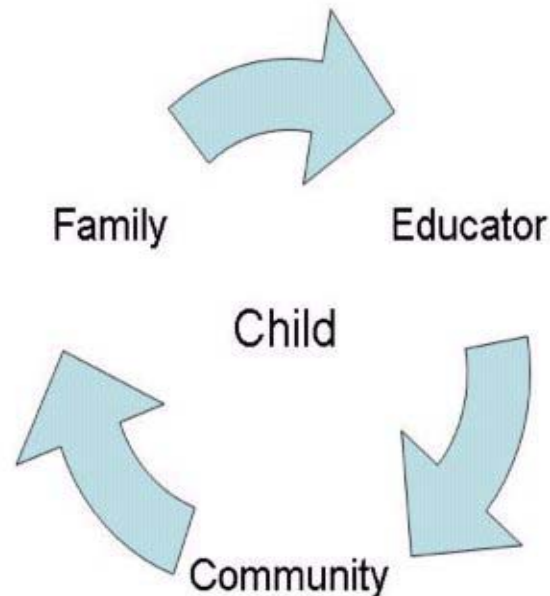
Kindergarten children trying to develop competency in a second language will experiment with language if they perceive they are in a supportive environment that encourages risk taking and collaboration among children. However, there may be times when educators observe that such children are reluctant to communicate orally. This is not necessarily a sign that children are not developing language competency in English. Frequently, this is an indication that they are listening and observing in order to develop their receptive language abilities, which will in turn help them develop the confidence to attempt to use the English language. It is essential that educators immerse these children in a language-rich environment to promote competence and confidence in English.

Social and Cultural Diversity

Social and cultural diversity is a resource for expanding and enriching the learning experiences of all children. All children need to see their lives and experiences reflected in the kindergarten environment. Learning activities, resources, and materials used in the kindergarten program should include books, music, art, and props from diverse social and cultural contexts. They should allow children to make meaningful connections between what they are learning and their own backgrounds, experiences, and learning styles.

Partners in Learning: Roles and Responsibilities

A major goal of the kindergarten program is to help children build on successful learning experiences they have had prior to their kindergarten year. Educators, family, and community are seen as partners in a child's journey to becoming a *lifelong learner*. The following descriptors provide an indication of the roles and responsibilities of all partners.



"A child's life is like a piece of paper on which everyone who passes by leaves an impression."

Chinese proverb

The Family

- is the child's first and most influential educator
- is encouraged to work cooperatively and collaboratively with the kindergarten educator to support the child's growth in all developmental areas
- is encouraged to become involved in their child's kindergarten experience by sharing their expertise and culture, helping to organize activities, and participating in various group activities such as field trips, parties, and special guest visitors
- is encouraged to communicate with the kindergarten educator through telephone calls and/or attending information sessions and parent-educator conferences.

The Educator

- provides a play-based, developmentally appropriate learning experience and materials that enhance the development and learning of all children
- provides a balance between educator-initiated activities (times when the educator guides the children's learning) and child-initiated activities (times when the children are

given opportunities to choose activities to manipulate, explore, and experiment)

- uses reflective practice, planned observations, and a range of assessment strategies to identify the strengths, needs, and interests of individual children. This provides opportunities for learning that are appropriate for each child (differentiated learning)
- provides parents with ongoing communication on their child's progress in all developmental areas through information/orientation sessions, parent-educator conferences, progress reports, portfolios, etc.
- works cooperatively and collaboratively with families
- continues to develop expertise through on-going professional training.

The Community

- provides services that help parents respond to their children's needs, including health care, family resource centres, cultural associations, library, recreational organizations, and many other groups working with children and their families.

Curriculum Integration

Developmentally Appropriate Practices in Kindergarten

“Developmentally appropriate practice means doing what’s best for children based on what is known about them.”
Hirsh, c. 2004

Developmentally appropriate practice means doing what is best for children based on what is known about them. Developmentally appropriate kindergarten programs provide for all areas of a child’s development: creative, physical, social/emotional, intellectual, literacy, and numeracy. An understanding of child development, an awareness of the individual needs and differences in each child, and a knowledge of the curriculum outcomes should be the basis for developmentally appropriate curriculum delivery and when selecting appropriate instructional strategies.

The instructional strategies chosen by a kindergarten educator should help children develop as knowledgeable, self-assured learners. All children must be challenged, and educators who use developmentally appropriate instructional practices must use a variety of teaching methods to make this a reality. It is recognized that any one teaching method may not be successful with all children. Determining the most effective method for each child will require that the educator become an avid observer of children and the learning environment.

An important part of instructional strategies is the assessment component. Assessment is integral to the teaching-learning process and provides the educator with valuable information about the child’s learning styles, level of development, and achievement. This information provides educators with ongoing direction to support their planning of developmentally appropriate activities.

Using a variety of instructional practices supports the educator in meeting the various learning needs of kindergarten children. Inherent in such instructional practices are many opportunities for learning through play, direct and indirect instruction, experimentation, independent learning, and interactive instruction.

The Kindergarten Learning Environment

The kindergarten environment is bright and filled with children's voices. There is often a steady hum as children move around the room chatting with each other and choosing a variety of "hands-on" "minds-on" learning activities. Children are reading in the book corner, painting in the art centre, cooking at a restaurant in the dramatic play centre, and exploring natural objects with magnifying glasses in the science centre. The educator moves around the room engaging in conversations with individual children and scaffolding children's learning as she asks open-ended questions. The walls are filled with samples of children's creativity from paintings to stories using invented spelling, as well as poems, songs, and charts to support literacy development. The environment is a safe and nurturing place for children to grow and learn.

"We will not have done our best for young children if we deny them the path to learning they seek through play, because young children are made to play."

M. Trehearne, c. 2000

The kindergarten environment is ever changing and dynamic. A well-planned kindergarten environment will support children's growth and learning. It will provide opportunities for a wide variety of play activities: messy and organized, quiet and active, large-group, small-group, and individual. Young children learn by doing, by actively engaging with materials, equipment, and people in their learning environment. Young children learn from everything around them. The kindergarten environment should provide a place for children to feel safe and supported to take risks, work cooperatively with others, and become confident, independent learners.

Learning Centres

Learning centres in a well-planned integrated kindergarten environment provide developmentally appropriate activities and materials for each child to explore in a variety of ways. Learning centres promote play-based opportunities for children to engage in "hands-on" and "minds-on" learning experiences. Kindergarten children should be provided with large blocks of time daily to participate in learning centre activities. Learning centres are designed to provide a balance of teacher-directed activities and spontaneous child-generated activities. The amount of learning is affected by the nature of the materials provided and the quality of the educator's involvement in the play activity. Besides providing suitable materials and appropriate conditions for play, the educator should help children structure and extend their play.

A wide variety of centres accommodating different learning styles may include reading centre, listening centre, writing centre, art centre, sensory centre (sand/water), math centre, dramatic play, and building blocks.

Learning centre activities allow children to

- work independently or cooperatively in small groups.
- explore, discover, and practice new concepts or skills in many curriculum areas through hands-on experiences and active learning.
- problem-solve and use critical thinking skills.
- self-select activities and materials.
- develop and expand vocabulary and communication skills.

Learning centres provide opportunities for educators to

- promote development in all areas.
- document growth and progress.
- hold conferences with individuals or small groups (guided reading, writing, etc.).
- scaffold children's learning by observing, supporting, asking questions, and listening to children.
- introduce new concepts or skills in any curriculum area.
- support curriculum integration.
- meet many outcomes on a daily basis, depending on the activities and resources provided.
- build on the current interests of children.
- accommodate different learning styles and intelligences.

Educators need to be continually monitoring children's interest in learning centres and changing materials regularly to maintain interest and promote ongoing progress.

Integration

Integration is the drawing together of the natural connections among various curriculum areas to assist children in making sense of their world.

While curriculum content and learning outcomes in the curriculum section of this document are organized in separate subjects, it is intended that educators will use an integrated delivery model. Where appropriate, some outcomes have been cross-referenced within the body of the document to show where natural connections can be made. *It is important that educators have a strong understanding of all curriculum outcomes in order to facilitate the integration process.*

For the kindergarten child, the experiences of living and learning are inseparable. Learning is part of the total experience of living. Separating learning experiences into subjects taught in isolation is contrary to what is known about how children learn.

Integration is the drawing together of the natural connections among various curriculum areas to assist children in making sense of their world. It assists learners in acquiring the skills, attitudes, and knowledge that will allow them to grow and learn in a holistic manner. Integration provides educators with opportunities to organize and choose teaching strategies. This integrates learning experiences, which builds on the child's level of development and strengthens and extends their base for future learning.

It is important to determine what children already know, what they need to know, and what they want to know. When an integrated child-centred curriculum is planned by the children and the educator in a collaborative manner, themes and activities are more likely to meet the needs of the children and be more developmentally appropriate. The educator who invites children to be an integral part of the planning for integration becomes a partner and guide in the learning process. Such instructional planning ensures a balance between child-initiated and teacher-directed experiences, individual and group activities, and among the various content areas.

Integration can be facilitated in many ways. These strategies include but are not limited to literacy-based integration, project approach, emergent curriculum, mind mapping, K-W-L charts, six-step planning model, and multiple intelligences. The appendix provides samples and further elaborations. Samples of integrated daily activities including snack, sign-in, question of the day, calendar, and daily message have been provided to show how integration of outcomes happens naturally.

Literature-Based Integration

Literature-based integration uses a story to build a unit and plan integrated activities. Using children's literature captures children's interest and imagination. The characters and settings provide a natural way to introduce a variety of concepts in literacy, numeracy, social studies, science, health and physical development, and creative development.

Project Approach

Project approach refers to a set of teaching strategies that enable teachers to guide children through in-depth studies of real world topics. The key feature of a topic is that it is an investigation - a piece of research that involves children in seeking answers to questions that they have formulated by themselves or in cooperation with their teacher and that arise as the investigation proceeds. (*Engaging Children's Minds: The Project Approach* 2nd Edition - Katz & Chard, c. 2000).

"Curriculum integration provides a practical means for teachers to connect outcomes in a meaningful way."
Planning for Curriculum Integration,
c. 2006

Emergent Curriculum

"Emergent curriculum is an approach to teacher planning that begins with listening. Teachers collaborate to watch for children's interests, worries, desires, understandings, and misunderstandings, and use these as beginning points for curriculum. It is developmentally appropriate and builds on well-developed observation skills of early childhood teachers. Once teachers select a focus, they plan provocations or interesting events that stimulate children's thinking and activity. Teachers document children's responses and think carefully about the next step. The intent of emergent curriculum is to slow down and deepen positive relationships among children, teachers, families, and their environment." (Wien & Stacey, 2000) *Emergent Curriculum* by Carol Ann Wien, Connections vol. 101.

Mind Mapping/Webbing

Mind mapping/webbing is brainstorming what children know about a given topic. This method allows the educator to determine at a glance the interests of the children. By following the lead of children, educators plan integrated activities that support children's needs and meet curriculum outcomes. This method is an integral component of the project approach and six step planning model.

K-W-L Chart

The K-W-L chart is another way to find out what children already know about a given topic and then what they want to know. **K**-Know, **W**-what I **W**ant to know, **L**-what I want to **L**earn. This method gives educators a starting point for planning integrated units.

Six-Step Planning Model is taken from the *CAMET Planning for Curriculum Integration: A Resource for Educators*. This strategy takes educators through the following six steps:

1. Choose a unifying idea.
2. Brainstorm meaningful connections.
3. Identify curriculum outcomes.
4. Formulate essential questions.
5. Choose and/or design learning experiences.
6. Decide on assessment strategies.

The educator's familiarity with specific curriculum outcomes and the above six steps will guide them through the development of an integrated unit.

Eight Multiple Intelligences

Integration can also be approached by using Howard Gardner's theory of multiple intelligences. Gardner has identified eight intelligences. These are musical, logical/mathematical, interpersonal, intrapersonal, bodily/kinesthetic, spatial, naturalist, and verbal/linguistic. By understanding the characteristics of each of the intelligences, educators can provide a variety of learning experiences that will support all children's learning styles.

Essential Graduation Learnings in Kindergarten

Essential Graduation Learnings (EGLs) are statements describing the knowledge, skills, and attitudes expected of all students who graduate from high school. Achievement of the essential graduation learnings will prepare students to continue to learn throughout their lives. These learnings describe expectations, not in terms of individual school subjects, but in terms of knowledge, skills, and attitudes developed throughout the curriculum (*Foundation for Atlantic Canada Curriculum*). The following table provides examples of what this might look like in kindergarten.

Essential Graduation Learning	Examples for Kindergarten
Aesthetic Expression Graduates will be able to respond with critical awareness to various forms of the arts and be able to express themselves through the arts.	Kindergarten children <ul style="list-style-type: none"> • are creative and expressive. • enjoy drawing, singing, dancing, and moving.
Citizenship Graduates will be able to assess social, cultural, economic, and environmental interdependence in local and global context.	Kindergarten children are <ul style="list-style-type: none"> • developing a sense of fairness and understanding of consequences for actions. • starting to understand others feelings. • curious about the world around them.
Communication Graduates will be able to use listening, viewing, speaking, reading, and writing modes of language(s), as well as mathematical and scientific concepts to think, learn, and communicate effectively.	Kindergarten children are beginning to <ul style="list-style-type: none"> • learn to read and write. • express their thoughts through pictures, drama, songs, or words. • tell their own stories, thrive on asking questions, and learn to listen to others. • use their five senses to describe the world around them. • use mathematical terminology to describe their world.
Personal Development Graduates will be able to continue to learn and pursue an active, healthy lifestyle.	Kindergarten children are <ul style="list-style-type: none"> • actively engaged in their own development and learning. • learning through movement and play.
Problem Solving Graduates will be able to use the strategies and processes needed to solve a wide variety of problems, including those requiring language, mathematical, and scientific concepts.	Kindergarten children are <ul style="list-style-type: none"> • curious, explore possibilities, manipulate materials, and ask questions. • developing problem-solving strategies as they investigate, try things, and figure out how things work.
Technological Competence Graduates will be able to use a variety of technologies, demonstrate an understanding of technological applications, and apply appropriate technologies for solving problems.	Kindergarten children <ul style="list-style-type: none"> • experiment with technology. • explore technological tools such as computers, calculators, and audio/visual equipment.

Four-Column Curriculum Layout

The curriculum areas in this document have been organized into four columns to relate learning experiences to the outcomes by

- providing a range of strategies for learning and teaching associated with a specific outcome or cluster of outcomes.
- demonstrating the relationship between outcomes and assessment strategies.
- suggesting ways that educators can make cross-curricular connections.
- providing educators with resource suggestions.

The topic or strand for each subject is identified on the top left side of the page.

Column 1: Outcomes

This provides specific curriculum outcomes indicating what children are expected to know and be able to do by the end of kindergarten.

Specific curriculum outcomes are identified by strand/topic and then by outcome. For example, Early Numeracy has four strands (1-4). The first strand, second outcome is identified as 1.2. Each subject also has an abbreviation: Early Literacy (EL), Early Numeracy (EN), Social Studies (SS), Science (S), Health and Physical Development (H&PD), and Creative Development (CD).

Column 2: Elaboration-Strategies for Learning and Teaching

This provides clarification of the specific curriculum outcome(s), as well as suggestions of possible strategies/activities that might be used to help children achieve the outcome(s). These are only suggestions, and it is not necessary for educators to use any or all the suggested strategies.

Some strategies have also been cross-referenced to other outcomes to support integration.

Column 3: Worthwhile Tasks for Instruction and/or Assessment

This provides suggestions for ongoing assessment that forms an integral part of the learning experience. While the suggested tasks presented may be used for assessment, they will also further clarify the specific curriculum outcome(s) and will often represent useful instructional activities. Again, these are suggestions only, and educators may want to tailor them to meet the needs and interests of the children in their kindergarten.

Column 4: Resources

This column provides a list of resources that will support the outcome and teaching strategies.

Final Thoughts

To support the educator in planning developmentally appropriate experiences for kindergarten children, the outcomes for the kindergarten program are organized under

- Early Literacy
- Early Numeracy
- Social Studies
- Science
- Health and Physical Development
- Creative Development.

The curriculum outcomes for the specific subject areas are intended to provide direction for the overall planning and integration of curriculum experiences. It is essential that all outcomes, either integrated or individual for the various subjects, be used to provide integrated experiences for the kindergarten child. Meaningful integration will ensure that adequate time is available to provide a good foundation during the kindergarten year to support children on their journey to becoming *lifelong learners*.

Early Literacy

Language and Literacy Development

Language development begins at birth and continues to develop over time. With multiple opportunities to speak, listen, read, and write, children continually expand their concepts, skills, and strategies. Language and literacy development is best accomplished through meaningful learning experiences that balance and integrate the language processes (speaking and listening, reading and viewing, writing and representing). A child's growth in one area influences, contributes to, and is affected by development in all the other areas. For instance, it is difficult to grow as a reader or writer without talking about what one is feeling, visualizing, and thinking.

It is important that children see themselves as individuals who talk, listen, read, write, and view texts in order to make sense of their world. Children need time to reflect and to make connections between what they know and what they see and read. Children will use language in all areas of learning as they participate in large-group activities such as read-alouds, shared reading, modelled and shared writing, and small-group activities such as guided reading and writing, as well as planned activities at various learning centres. This will give them opportunities to communicate their thoughts, pose questions, and investigate ideas. By using literacy materials in the learning centres, children learn to see reading and writing as integral aspects of their daily lives. For example, children explore books about fire trucks at the block centre as they make a fire station; they use writing materials to make signs or maps for roads at the sand table; or they view and discuss menus as they learn about ordering food in restaurants at the dramatic play centre.

To support development in speaking, listening, reading, viewing, writing and representing, it is necessary that the kindergarten program focus on

- oral language as a means of making sense of experiences and new learning.
- a safe risk-taking environment that allows children to feel accepted and encouraged to extend their language and literacy development.
- positive feedback and modelling that are an integral part of the day.
- child-centred learning.
- daily opportunities for reading, writing, speaking, and listening.
- problem solving where children continue to predict, try out, approximate, and confirm.

- flexible groupings involving children in whole-group, small-group, and individual learning situations.
- quality literature where children are involved in reading fiction and non-fiction.
- conferencing with children to scaffold their learning.
- opportunities for children to engage in conversations, to answer and ask questions, and to express their thoughts.
- lifelong learning whereby children use all of the language processes to become thinking, literate individuals.

There can be considerable variation in the language and literacy development of children when they enter kindergarten and in their rate of progress. Children generally pass through several broad stages on their way to becoming independent communicators, orally and through print. These stages can be identified as early emergent, emergent, and early.

In kindergarten, many children exhibit characteristics of early emergent and emergent readers and writers. However, some children will begin kindergarten at a more advanced stage (early). It must be emphasized that this process of literacy development is not lockstep or linear. The rate of progress varies for each child. The goal is to accept children where they are and provide opportunities for them to build on their understanding. Through ongoing and meaningful assessment, educators become aware of the child's stage of literacy development.

Early Emergent

During the early emergent stage (usually occurring during the preschool years), children view reading and writing as something people do. They attempt to read by using pictures, and they do not realize that print carries a message. Initial reading attempts involve labelling and commenting on pictures, telling a story in oral-like language, and using written-like language to tell the story from pictures.

Writing in the early emergent stage is characterized by scribbles, letter-like shapes, and imitative cursive writing. Children relate these initial writing attempts to speech.

Emergent

Emergent readers (usually during the kindergarten year) know that language can be written. They discover the concepts of print such as directionality and one-to-one correspondence, as well as concepts of a word and the alphabetic principal. They understand that text and illustrations carry the message or story. As readers, they use pictures to predict and make sense

of text. They also use their memory of text structure, their knowledge of some common sight words, and initial sounds to reread familiar text.

Young children's writing also shows the development of their knowledge of how the written language works. They are beginning to develop many important concepts of print. They begin to understand that print holds meaning, that print has directionality, and that talk can be written down. They become familiar with the letters of the alphabet and start to make connections between them and spoken sounds.

Although beginning emergent writers often tell their stories through drawing, when they are provided with opportunities for independent writing in a supportive, risk-free environment, they will begin to use invented spelling and add labels and eventually sentences to their drawings.

Young children experiment with many functions of written language. Participation in activities such as dramatic play will provide them with "authentic reading and writing situations" such as preparing and reading lists, menus, etc. As emergent learners, they use what they know about language and how language works to write their messages and in turn read what they have written. They begin to understand the concept of audience and will also ask others to "read" what they have written.

Early

Children in the early literacy stage (end of kindergarten through early grade one) show increasing knowledge of concepts of print. They show growing confidence in the use of their prior knowledge and their experience to make sense of unfamiliar text. When reading, they take risks by making approximations, and they use meaning, sentence and text structure, as well as their knowledge of letters and sounds to predict and confirm what they have read. They are beginning to self-correct. They know the basic relationships between the most common sounds and letters, have a basic sight word vocabulary, and are displaying fluency when reading.

When writing, the children will write about topics of personal interest. They write letters, stories with a character, notes, labels, poems, etc. They compose sentences that make sense, and they begin to develop a sense of story structure (beginning, middle, and end). They can arrange ideas in a logical sequence, and they can read their own writing. They will use words that they can spell correctly, as well as approximations and invented spelling to write their messages. As a result of

repeated exposure to and positive involvement with written text, children will make the transition to conventional spelling. They use conventional spacing between words and show awareness of the use of upper and lower case letters and other basic conventions.

Effective Literacy Instruction

Effective Literacy Instruction is where reading, writing, listening, and speaking are integrated into a child-centred, print-rich, natural, language-learning environment. Effective Literacy Instruction in kindergarten includes whole-group, small-group, and independent instruction. Effective Literacy Instruction provides

- opportunities for speaking and listening.
- opportunities to manipulate and play with language.
- rich literacy experiences.
- a variety of writing experiences.

Through ongoing observation and assessment in a literacy-friendly environment, educators support and scaffold children's learning. As children learn to take risks in a safe environment, they move towards becoming independent readers and writers.

Children learn to talk by talking, read by reading, and write by writing.

Vygotsky said that we shouldn't do for children what children can do for themselves. Children learn to *talk by talking*, they learn to *read by reading*, and they learn to *write by writing*. This can be achieved by ensuring that children see language as meaningful and purposeful and by keeping the program child-centred and the environment full of books and writing.

Children learn language when they are immersed in it. When educators provide a language-rich environment in which language is used in various ways for a variety of authentic purposes, children develop and grow as language users.

Oral Language

Oral language (speaking and listening) is an integral part of learning. Children learn best when they have frequent opportunities to share their thinking orally with their peers and with adults. This change in focus from having the educator always leading the classroom talk to allowing and valuing peer discussion in small-and large-group interaction supports children's meaning-making process in all learning situations.

Oral language is the foundation of literacy learning. Reading and writing are meaningful because they represent and extend the oral language system.

-Fountas and Pinnell, *Voices on Word Matters*, c. 1999

In kindergarten, children need to feel safe to take risks, recognize that their contributions are valued and worthwhile, and feel free to express their ideas, opinions and feelings. Children need many opportunities throughout the day to use oral language as they extend their learning. They need time to extend, clarify, and reflect on their thoughts, feelings, and experiences as they communicate with others.

Children's knowledge of oral language and how language works will support them in the reading and writing processes. The educator, through careful observation of children's oral language, needs to support the development of reading and writing by connecting oral language knowledge to the reading and writing process.

Phonological Awareness

Phonological awareness is the awareness of the sound structure of language. Phonological awareness involves identifying and manipulating larger parts of spoken language, such as whole words, syllables, onsets, and rimes (Lesley M. Monrrow, c. 2007). Children demonstrate the beginning understandings of phonological awareness when they march to the beat of music, play rhyming games, and clap the syllables of spoken words. This is an important skill that children need to develop.

It is important to recognize that phonological awareness is an oral skill independent of print, whereas phonics is the relationship between what is heard and seen (sound and print).

*"Children's level of phonological awareness at the end of kindergarten is one of the strongest predictors of future reading success."
(Miriam Trehearne, c. 2000.)*

It is important to recognize that phonological awareness is an oral skill independent of print, whereas phonics is the relationship between what is heard and seen (sound and print). There is growing evidence to suggest a strong connection between children's phonological awareness and their future reading/writing development. Children's level of phonological awareness at the end of kindergarten is one of the strongest predictors of future reading success (Miriam Trehearne, c. 2000). Many children enter kindergarten with a strong understanding of phonological awareness. However, some children may require a more direct focus on specific phonological awareness skills. Phonological awareness is an important piece of effective literacy instruction. To be most successful, it needs to be integrated into a literature and language-rich environment.

The following is a list of some natural and spontaneous ways that educators can use to support the development of phonological awareness:

- word play in stories, singing songs, chanting, and reading poems with sound repetition and rhyming.
- drawing children's attention to the fact that *Bailey* and *Benjamin* start with the same sound.
- clapping the number of syllables in a child's name when singing a song like *Hickety Tickety Bumble Bee*.

Educators can also support the development of phonological awareness by allowing, encouraging, and supporting invented, temporary, or phonetic spelling. When children are encouraged to take risks with their spelling, they are learning to

listen to their own words, break words into sounds, and then match the sounds to letters. Using invented/temporary spelling is a normal strategy in the developmental process. Children need to feel safe and supported as they take risks in this process.

Reading and Viewing

“Letter naming drills in isolation or reciting the alphabet from memory do not create readers.”

Rog., 2001

Reading and viewing are the processes of constructing meaning from a variety of representations including print, film, television, and technological and other texts. Becoming a reader is a continuous process that begins with the development of oral language skills and eventually leads to independent reading.

With a strong understanding of oral language, kindergarten children begin to develop the strategies (see next page) necessary to problem-solve words and understand text. As children are exposed to the reading process, they become aware that letters make sounds, that words are made up of letters, that sentences are made up of words, and that reading the words brings meaning to what is being read.

Many children in kindergarten are just beginning to experiment with reading. As children learn to read, they begin to use a variety of reading strategies to problem-solve unknown words and to understand text. It is the educator’s role to introduce and model reading strategies during read-alouds and shared reading. The educator also supports children in their use of reading strategies during guided and independent reading.

Educators need to provide literacy-friendly environments where all early attempts at reading are acknowledged and accepted in order for children to believe that they are readers.

Children learn to read/view most easily when

- they are immersed in reading and viewing.
- they receive positive responses and feedback.
- they see strategies demonstrated and modelled in context.
- they are supported in risk taking and approximations.
- they see the value of reading and viewing and develop the desire to engage in reading and reading-like behaviour.

Educators also support children in learning to read by using effective literacy instruction. This includes a combination of shared reading, guided reading, independent reading, and read-alouds, as well as modelling, demonstrations, and direct teaching. Writing and oral language are also integral parts of effective literacy instruction.

Sample Reading Strategies for Supporting Comprehension and Word Problem Solving

Reading Strategies	Prompting for Reading Strategies
Predicting - using what the reader knows about how language works and visual information (letters, sounds, word length, etc.) to make a decision about what the word may be or what might happen next in a story	<ul style="list-style-type: none"> • Look at the pictures. What do you think will happen next? • Think about what has happened so far. What would make sense? • Look at the beginning letter. What do you think the word could be?
Searching for and using information - looking for and using all types of information including: meaning - what makes sense structure of language - what sounds right visual information - letters and the sounds they represent, word length, etc.	<ul style="list-style-type: none"> • Let's look at the sentence. Do you see any words you know? • Let's look at the picture again. What would make sense? • Do you know any letters in this word? Let's try it. Does that sound right? Does that look right? • You said...Can we say it that way? • Let's reread that sentence. Did that make sense?
Monitoring & Correcting - checking whether reading sounds right, looks right, and makes sense, and solving problems when it doesn't	<ul style="list-style-type: none"> • Point to each word. Did that match? • Did that make sense? Let's try that again. • I liked the way you noticed something wasn't right. How did you know? Let's try that again.

Adapted from Fountas and Pinnell, c. 2007

Read Aloud

Reading to children is an essential component of any reading program. It is one of the best ways to interest them in reading and to demonstrate that reading can be enjoyable and worthwhile. Reading to children helps them understand the nature and purpose of reading. It also helps them become familiar with the patterns of written language. It can interest them in different types of literature and authors. Reading aloud can also be used to model effective reading strategies (ex. predicting, confirming, and self-correcting) and the use of

various sources of information. Reading aloud to children has been shown to have positive effects on

- reading comprehension
- listening comprehension
- quality of oral and written language
- reading interests.

A variety of texts should be used for read-aloud sessions, including fiction, non-fiction, and poetry. The age, needs, and interests of children, as well as their previous exposure to books, need to be taken into consideration when selecting texts for read-aloud. Appropriate texts are those that extend children's thinking, develop their imaginations, increase their interests, and expose them to interesting language and illustrations.

Shared Reading

Shared reading is an interactive reading experience that supports and challenges children, regardless of their literacy level. In shared reading, the educator uses big books or enlarged print (daily message, poems, songs, lists, etc.) that all the children can see. The educator involves the children in reading together by pointing to each word in the text. The educator deliberately draws attention to the print and models early reading behaviours moving from left to right and word-by-word matching. During shared reading, the educator creates an environment where children learn to *read by reading*. This important step between reading to children and independent reading is an essential component of effective literacy instruction in the kindergarten program.

Shared reading sessions involve multiple readings of the text over several days. As children explore big books, rhymes, songs, and poems with the educator, they are actively involved in the reading process.

During the first reading, the educator

- emphasizes reading for enjoyment.
- introduces the book (examines title, cover, illustrations, and makes predictions).
- relates prior experience to text.
- encourages children to use background knowledge to make predictions.
- encourages children's participation while reading.
- asks open-ended questions and encourages discussion.

Further readings provide

- motivation for reading, demonstrating to children the joy and fun of being a part of a reading group.

- the opportunity for children to be successful as they practice reading in a supportive risk-free environment.
- the opportunity to teach numerous concepts in the context of reading such as
 - concepts of print directionality, words, spaces, capitals, and punctuation
 - reading strategies including predicting, monitoring, self-correcting, and searching for and using information
 - sound-letter connections
 - book knowledge (concepts of story) - character, setting, beginning/middle/end, illustrations, genre
 - high frequency words and new vocabulary

For further information refer to *Literacy Place for the Early Years Reading Guide*, p. 37, *Story Box Reading Program*, p. 55, and *The Kindergarten Teacher's Resource Book*.

Guided Reading

Guided reading is an important component of effective literacy instruction. In guided reading sessions, educators support small groups of children in reading texts they are unable to read independently. The focus is on helping children to develop concepts, skills, and strategies and learn to apply them in other reading situations. A particular guided reading session might, for example, focus on one of the following strategies:

- directionality or one-to-one matching
- using prior knowledge and experience to make sense of a text
- using various sources of information to predict, monitor, and self-correct
- reinforce or introduce high frequency words
- reading on when one is challenged by a difficult word.

The focus for a guided reading session is based on careful observation of children and their needs, as well as an understanding of the reading process and reading development.

For guided reading sessions, educators form flexible groups of three to five children with similar needs. In this way, educators are able to choose a text and a focus of instruction appropriate to the needs of the group.

While guided reading is being done with one group, the rest of the kindergarten may be engaged in learning centre activities. It is important to encourage children to be independent at this time and not to interrupt the reading group unless there is an emergency. Small-group work can be

started at the beginning of the year so as to have the children working independently when guided reading groups are formed later in the year.

Independent Reading

Independent reading provides children with opportunities to choose their own text and to practice reading and reading-like behaviours. It is important for educators to provide daily opportunities for children to engage in independent reading. Educators provide a variety of reading materials including familiar texts, fiction, nonfiction, big books, class-made books, songs, charts, poems, children's literature, and environmental print. After guided reading has been introduced, book baskets containing previously read leveled texts should be made available. Support children's engagement in independent reading by encouraging them to respond to text they have read/viewed through drawings, paintings, creations, etc.

Independent reading

- builds self-confidence and independence as readers
- provides an opportunity to self-select reading materials and to engage in reading or reading-like behaviour.
- provides an opportunity to apply strategies that have been introduced during read-aloud, shared, and guided reading.

Writing and Representing

"Although their pages may appear to be filled with nothing but scribbles, we must remember that they are writing."
Culham, 2005

Learning to write is a developmental process. The writing process of emergent writers will not look exactly the same as the writing process of fluent writers. From the first day, educators can start to help children become familiar with the writing process through group-writing situations such as shared writing and modelling while thinking aloud. Children need opportunities to write every day. Gradually, with the help of mini-lessons, demonstrations through books, writing conferences, and frequent practice, kindergarten children will develop a more and more sophisticated writing process.

Modelled Writing

Children benefit from having opportunities to see parents and educators writing for everyday purposes (ex. letters, notes, lists, and diaries). When given the opportunity and encouragement, children often engage in similar kinds of writing, even though conventional print may not be used in initial attempts.

It is important that educators demonstrate correct letter formation during modelled as well as shared and guided writing (i.e., top to bottom). It is not intended that children make rows of letters but that they have ample opportunity to write everyday. Providing children with opportunities to

engage in meaningful writing reinforces that they are writers as well as allowing them time to practice letter formation in the context of writing.

Educators should also provide opportunities to model various aspects of the writing process, skills and strategies such as directionality, punctuation, and spelling. Educators might model such processes and strategies in a variety of contexts such as

- class rules or instructions
- signs and labels
- invitations/thank-you letters
- letters to parents
- innovations of stories read (class big books)
- response journals
- daily message.

Shared Writing/Shared Interactive Writing

Shared writing is similar to modelled writing, except that children are encouraged to participate as much as possible, both by contributing to the content and by physically attempting some parts of the writing (shared interactive writing). This writing strategy is also useful for developing positive attitudes to writing as children find it non-threatening, supportive, and enjoyable.

The purposes of shared writing include

- providing kindergarten children with opportunities to participate in writing experiences (recording thoughts and ideas) and to behave like writers.
- helping children understand that print carries a message.
- developing an awareness of some conventions of written language including directionality, one-to-one correspondence, spacing between words, punctuation, letter formation (upper and lower case), and letter-sound relationships.
- opportunities to demonstrate drafting with emergent writers. *Note: Educators demonstrate early forms of writing such as communicating through drawing and invented spelling.*
- opportunities to demonstrate editing with emergent writers. *Note: Educators demonstrate beginning steps to editing by rereading what has been written, adding detail to a picture, adding punctuation, checking familiar words for spelling, etc.*

Shared writing opportunities can include writing

- response to text
- news of the day
- re-telling of familiar stories
- shared experiences, ex. field trips, invited guests.

Guided Writing

Guided writing scaffolds and supports children in their journey to becoming independent writers. It is done in small groups or with individual children. Children do the writing but are supported as needed by an educator through mini-lessons and conferences. Guided writing gives children the opportunity to build on their writing knowledge and to take risks with their writing. From drawings to writing their name and a few words, they progress to more words and eventually to sentences. Educators may use guided writing to

- focus on specific writing strategies or needs shared by some children.
- support the use of approximation and invented spelling.
- provide opportunities to write for different purposes and audiences.
- encourage the development of creativity as children publish their writing in different forms (books, poetry, letters, lists, stories, etc.).

“From the first day of kindergarten, children should be expected to write every day.”

Rog., 2001

Independent Writing

Independent writing in kindergarten allows children to communicate through print using scribbles, drawings, approximations, letters, and words. Learning centres in kindergarten provide many opportunities for children to experiment with writing independently. For example, children may record a plant’s growth in the science centre, take orders in a restaurant in dramatic play, or make a birthday card for someone special in the writing centre.

When children write independently, they experiment with

- letter formation (size of writing, space, and correct letter formation)
- recording letter/sound connections in context
- the use of environmental print, words with personal meaning, and high-frequency words to record a full thought
- simple punctuation.

1. Oral Language - Speaking & Listening

By the end of kindergarten children will

1.1 express feelings and opinions and describe personal experiences and interests (H&PD 3.1)

1.2 listen to the ideas and opinions of others

1.3 begin to ask and respond to questions, seeking help or information (who? what? why? where? when?)

Elaboration - Suggestions for Learning and Teaching

1.1, 1.2 Through whole-class and small-group discussions, provide opportunities and encourage children to tell stories, report information, and describe experiences and events (e.g., news time).

Give children opportunities to express feelings about books read aloud in class and during shared reading, as well as about music, plays, guest speakers, or movies. Discuss things that make them happy, sad, etc.

Help children make connections between what they are hearing and their own experiences (e.g., That reminds me of the time...That makes me think about...Remember in the story when...I used to...)

Involve children in group problem-solving activities. Learning centres provide many opportunities for this to happen naturally.

1.3 Model the kinds of open-ended questions you would like children to ask. Create a group list of questions suitable to ask a guest speaker. Discuss with children the difference between questions and stories. Role-play this before going on a field trip or when having a guest speaker in.

Children need to be given many opportunities to talk and ask questions in twos or in small groups. This may happen during learning centres and snack time.

1.1, 1.2, 1.3 Make *show and tell* an opportunity to help children develop their vocabulary knowledge and abilities to describe items. During *show and tell* time, model asking questions using the who, what, etc. format. (See *Kindergarten Teacher's Resource Book*, p. 207, for Vocabulary Wheel.) You may wish to enlarge the wheel and colour code - this may trigger children's memory when asking questions during show and tell.

1. Oral Language - Speaking & Listening

Worthwhile Tasks for Assessment and Instruction

1.1, 1.2, 1.3 Use observations and anecdotal records to note the confidence and ease with which children talk about personal experiences, express thoughts and feelings, ask and respond to questions, and express opinions.

Make use of checklists such as

- talks socially with classmates
- listens to others
- stays on topic
- asks/answers questions
- contributes to group discussion
- shows confidence and communicates effectively when speaking, e.g., during show and tell, when talking about something special they may have done, reporting weekend news.

Suggested Resources

Kindergarten Teacher's Resource Book
(Ch. 3)

1. Oral Language - Speaking & Listening

By the end of kindergarten children will

1.4 follow and give directions in different contexts

Elaboration - Suggestions for Learning and Teaching

1.4 Play games like *Simon Says*, *What Time Is It, Mr. Wolf*, or go on treasure hunts (SS 3.3).

When sending children to learning centres, give them verbal directions. Start easy and build on expectation.

Educator Talk

“When you go to the writing centre today, I want you to draw me a picture of how the story made you feel.” Remind children of the next step by saying, “Now that you’ve finished your picture, don’t forget to date stamp it and put it in your portfolio.” Visuals work well to remind children what they need to do next.

1.5 participate in conversation and in small-and whole-group discussion

1.5 Create a classroom environment that encourages interaction and talk. Provide situations that invite children to engage in meaningful talk (e.g., oral discussion about text read aloud or viewed, field trips, presentations, problem solving).

1.6 begin to use gestures and tone to convey meaning

1.6 During role-playing situations (play telephones, hospital, restaurant, store) or when acting out stories, comment on how children supplement the meaning through the use of gestures and/or tone of voice. Providing children with opportunities to engage in choral speaking (finger plays, poems) is a great way to model gestures and tone.

1.7 engage in simple oral presentations and respond to oral presentations

1.7 After reading to children, respond by acting it out, doing art, or writing. This can be done as part of a learning centre and/or presentation to a larger group.

Provide opportunities for children to listen and respond to guest presentations in the classroom (firefighter, dentist, author, artist, etc.).

Show children a video presentation of a book previously read, and involve them in talking about which they prefer, the differences and similarities between them.

1. Oral Language - Speaking & Listening

Worthwhile Tasks for Assessment and Instruction

1.4 Observe children's ability to finish tasks when more than one instruction is given. Do you have to give them the same instructions many times to finish what has been asked? Ex:

- when going to learning centres
- obstacle course
- every day tasks - arrival and departure, snack (wash hands before you come to snack table, etc.)

Initially: children may only be able to follow one-step instruction.

Eventually: children should be able to follow directions with more than one instruction.

Observe children's ability to give directions. Are they clear? Do others understand the directions?

1.5, 1.6, 1.7 Observe children's abilities to participate in conversations in one-to-one situations, as well as in group interactions.

Observe which children use and respond to non-verbal communication during classroom routines and group discussions.

Suggested Resources

Kindergarten Teacher's Resource Book
(Ch. 3)

1. Oral Language - Speaking & Listening

By the end of kindergarten children will

1.8 demonstrate that they are becoming aware of social conventions in group work and cooperative play

1.9 develop the concepts/vocabulary of feelings and an awareness that some vocabulary choices can hurt people

Elaboration - Suggestions for Learning and Teaching

1.8 Take the time at the beginning of the year to discuss the importance of cooperative behaviours/social conventions:

- sharing materials
- turn-taking in conversation
- asking permission to join an activity
- showing respect and consideration for others
- offering/asking for help
- using polite conventions such as please, thank you, excuse me.

Model and explicitly discuss and describe the above cooperative behaviours/social conventions. Discuss appropriate and inappropriate behaviour. Use a talking stick to focus attention on taking turns. Begin to talk about how to work in groups. Give children specific tasks within their cooperative groups. Discuss and model the roles and responsibilities of each group member. (SS 1.3)

1.9 Explore feelings and help children develop the vocabulary of feelings by encouraging them to talk about feelings they have and how they express them. (H&PD 3.1)

Ask children how they might express each feeling (smiling, singing, crying, etc.).

Invite children to choose a feeling and act it out while the rest of the class tries to guess what the feeling is.

Sing the song *When You're Happy and You Know It, Clap Your Hands*. Involve children in making up other verses for feelings they have identified.

When conflicts arise, have students use I-messages to describe how they feel and why. Ex. I like it when you play with me. I don't like it when you hit me. *Note: Emphasize the action, not the person.*

Brainstorm some feelings with children. In a modelled writing activity, categorize words by how they make you feel.

Ex. <u>Words that Hurt Me</u>	<u>Words that Make Me Feel Good</u>
Stupid!	Good Job!
Fraidy Cat!	I like you!
Carrot top	Will you be my friend?
Fatty	Thank you for helping me.

1. Oral Language - Speaking and Listening

Worthwhile Tasks for Assessment and Instruction

1.8, 1.9 Use observation/anecdotal records to listen to children's conversations as they work in groups. Note the extent to which they

- take turns communicating
- share materials
- agree and disagree using appropriate language
- use polite conversation
- offer/ask for help.

Observe/note

- appropriate use of vocabulary to express feelings
- identification of feelings
- ability to differentiate between language that hurts and language that affirms.

Suggested Resources

Kindergarten Teacher's Resource Book
(Ch. 3)

2. Oral Language - Phonological Awareness

By the end of kindergarten children will

2.1 identify how many words are in a spoken sentence

Elaboration - Suggestions for Learning and Teaching

2.1 Model for children during large-group time how to count the number of words in a simple sentence by clapping their hands, stamping their feet, or tapping with sticks. Reciting nursery rhymes, poems, or finger plays works well for counting the number of words in a sentence.

Educator Talk

"I'm going to say a sentence, and I want you to clap once for each word. *My cat is white.*"

Note: These are not in print, but recited. Children are listening for the number of words.

See Miriam Trehearne, p. 134-137, for Effective Techniques for Developing Word Awareness.

2.2 begin to segment and blend words into syllables

2.2 Segmentation is a phonological awareness skill in which children segment words into individual sounds.

During circle time, have children clap or tap (rhythm sticks) the number of syllables in a word - a good place to start is with a child's name: Bai-ley, Sa-man-tha, Al.

Sing: *Icktey-ticktey bumble bee, can you say your name for me? Susan.*

Educator Talk

"I want to spell the word butterfly. Let's say the word butterfly together slowly. How many syllables do you hear? I hear 3 parts (syllables) in but-ter-fly. Have the children tap the syllables and count how many.

Blending is a phonological awareness skill in which children combine individual sounds to form words.

Play a game with objects in a bag. Select one object and say "I see a cray-on." Have the children guess what the word is.

See Miriam Trehearne, p. 138-141, for Effective Techniques for Developing Syllable Awareness.

2. Oral Language - Phonological Awareness

Worthwhile Tasks for Assessment and Instruction

2.1 Observe children's ability to hear words in a spoken sentence. A good activity to observe is the Word Segmenting Place Mat Activity (*Kindergarten Teacher's Resource Book*, p. 135).

2.2 Create picture puzzles. Choose pictures and cut them into the number of syllables in a word. For example, cut a picture of a doghouse into two parts and then ask the children to say each syllable while pointing to each part of the picture (segmenting) and then blend the syllables as they put together the puzzle (blending). Observe and note children's ability to segment and blend compound words and eventually 2 and 3 syllable words.

Suggested Resources

Kindergarten Teacher's Resource Book
(Ch. 2)

Sounds in Action

*Literacy Place for the Early Years -
Working With Words*

2. Oral Language - Phonological Awareness

By the end of kindergarten children will

2.3 recognize and produce rhyming words in oral language

Elaboration - Suggestions for Learning and Teaching

2.3 As a follow-up activity to a read-aloud or shared reading, draw children’s attention to words that may have rhymed in the story.

Sing songs that contain rhyming or nonsense sequences. Ex. “The Name Game”.

Connor, Connor bo bonner, banana bana bo bonnor, fee fie fo fonnor, Connor; Sara Sara bo bara, banana bana bo bara, fee fie fo fara, Sara

Have children produce rhyming words. “Who knows a word that rhymes with ‘cat?’”...give children time to respond.

See Miriam Trehearne, p. 141-145, for Effective Techniques for Developing Rhyme Awareness.

2.4 recognize beginning and final phonemes (sounds) in oral language

2.4 During transition times (going to the bathroom, getting ready for home, etc.) have children listen for the beginning sound of their name to do what you have asked. Later in the year, you might want to ask children to do the same, only use the last sound in their name.

Educator Talk

“Anyone whose name starts with the sound /b/ please go wash your hands.”

See Miriam Trehearne, p. 146-152, for Effective Techniques for Developing Sound Awareness.

2. Oral Language - Phonological Awareness

Worthwhile Tasks for Assessment and Instruction

2.3 Observe children's ability to recognize and produce rhyming words.

Kindergarten Teacher's Resource Book Assessment Blackline Masters, p. 157-159

2.4 Observe children's ability to hear sounds in words while doing an activity such as Odd Man Out (*Kindergarten Teacher's Resource Book*, p. 147).

Kindergarten Teacher's Resource Book Assessment Blackline Masters, p. 157-159

Suggested Resources

Kindergarten Teacher's Resource Book (Ch. 2)

Sounds in Action

Literacy Place for the Early Years - Working With Words

3. ~~Reading and Viewing~~

~~By the end of kindergarten children will~~

~~3.1 regard reading/viewing as sources of interest, enjoyment, and information~~

Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations

~~3.2 understand basic concepts of print including directionality, word, space, letter, and sound~~

~~Elaboration – Suggestions for Learning and Teaching~~

~~3.1 Read to children and share the enjoyment of reading daily (Literacy Place Reading Guide, p. 20-36).~~

~~Provide a print-rich environment (books, environmental print, posters, signs, labels).~~

~~In the context of shared reading (daily message, big books, poems, recipes) with enlarged print, engage children in reading and re-reading a wide variety of predictable texts featuring rhyme, rhythm, and repetition. (See Shared Reading, p. 55-85, Teaching With the Story Box Reading Program.)~~

~~Provide daily opportunities for children to read and view a variety of texts and talk about them:~~

- ~~• Engage children in talking about books read during shared, guided and independent reading. (See Guided Reading, p. 87-123, Teaching With the Story Box Reading Program).~~
- ~~• Involve children in talking about what they enjoyed or what they learned from viewing videos, plays, pictures, things seen on field trips, etc.~~

~~3.2 Draw children’s attention to conventions of print during shared reading by using a pointer.~~

~~Educator Talk~~

~~“While I’m reading the daily message, I’m going to point to the words. Now that I’m at the end of the sentence, where do I go?”~~

~~During guided reading, have children use their “reading finger” or make pointers from small straws or popsicle sticks to point to words to track print from left to right.~~

~~During shared or guided reading, draw attention to the spaces between words by using a space maker (a tongue depressor or popsicle stick works well).~~

~~During shared reading (daily message, big books, or poems) or guided reading, have children circle or “frame” words. Count the number of words in a sentence (small stickies work well during guided reading).~~

~~During shared and guided reading, draw children’s attention to the letters and the sound a letter makes. Educator talk: “Today we’re going to read ‘To Town’. ‘To’ and ‘Town’ both start with the /t/ sound, that’s the letter ‘t’.”~~

3. Reading and Viewing

Worthwhile Tasks for Assessment and Instruction

3.1 Observe and record such behaviours and responses as

- listening with interest during read-alouds
- sharing ideas during book talks and other discussions about texts (e.g., books, videos, TV programs, pictures)
- participating in shared reading
- identifying and interpreting environmental print
- responding to the rhyme and rhythm of language by chiming in
- showing appreciation of various forms of representation such as illustrations, role playing, poetry, and stories through a variety of responses

3.2 Observe and note children's responses when asked during shared or guided reading to

- point to a word
- point to a letter
- point to a space
- show where to begin reading
- show where to go at the end of a line.

Suggested Resources

Teaching with the Story Box Reading Program

Literacy Place for the Early Years Working With Words

Kindergarten Teacher's Resource Book (Ch. 2)

Joyful Learning in Kindergarten
shared reading Ch. 5 & 6

Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations

3. Reading and Viewing

~~By the end of kindergarten children will~~

~~3.3 engage in reading or reading-like behaviour as they experience a variety of literature~~

~~Elaboration – Suggestions for Learning and Teaching~~

~~3.3 Provide daily opportunities for children to visit your reading centre to practice reading or reading-like behaviour, allowing them to select from a variety of texts, fiction, and non-fiction, as well as simple predictable texts. (See *Literacy Place Reading Guide* Setting Up Learning Centres, p. 54-63; *Teaching With the Story Box Reading Program*, p. 125-136; and *Kindergarten Teacher’s Resource Book*, p. 285-315.)~~

~~Provide various contexts for reading – shared reading, guided reading, and independent reading.~~

**Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations**

3. Reading and Viewing

Worthwhile Tasks for Assessment and Instruction

3.3 Observe and note children's behaviours when viewing/reading:

- holding the book right side up
- reading from left to right
- using memory of the story to produce meaningful retellings
- reading the pictures
- using both the print and pictures to read the story
- pointing to the words as they read
- producing meaningful substitutions (ex. substituting the word "jump" for "hop")

Note: Based on observation of the children, provide material that supports all interests and levels. Ex.:

- pamphlets on tractors, motorcycles, skidoos, etc.
- class-made books
- wordless books.

When visiting the public library, help children find material they are interested in. If you are unable to visit the library with the children, ask them what they might be interested in, and bring back books that appeal to their interests.

Suggested Resources

Joyful Learning in Kindergarten

Teaching with the Story Box Reading Program Ch. 2

Literacy Place Reading Guide

Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations

3. Reading and Viewing

By the end of kindergarten children will

3.4 use picture cues and prior knowledge to make sense of unfamiliar text

Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations

3.5 use knowledge of oral language to make sense of unfamiliar text

Elaboration – Suggestions for Learning and Teaching

3.4 3.8 Many children in kindergarten are just beginning to experiment with reading. It is the educator's role to model reading strategies during read alouds and shared reading, as well to scaffold children's understanding of these concepts during guided and independent reading.

3.4 Help children understand reading/viewing as a meaning-making process by encouraging them to use the illustrations and prior knowledge to predict what the story might be about or what might happen next.

During a read aloud or shared reading, the educator encourages children to look at the pictures on the front cover and asks the following:

Educator Talk

"What do you think the story might be about? What does the picture tell us about what might happen in the book? While reading, the educator pauses and asks "What do you think might happen next? How did you figure that out? What do you know about dogs that will help us read this book?"

Involve children in predicting for meaning through oral cloze. Leave words out of a daily message, poem, or song. Ex. Twinkle, Twinkle, Little _____.

Encourage confirming/self-correcting while conferencing with a child during guided reading: "I noticed that you looked at the picture before you tried that word. Were you right? How did you know?"

(See guided reading: *Story Box*, p. 87-123, & *Literacy Place Reading Guide*, p. 73-93)

3.5 During shared reading, model predicting using oral language by thinking out loud:

Educator Talk

Educator reads: "I said a snowman. Hmm, that doesn't sound right. What could it be?" Rereads: I saw a snowman. That sounds better."

During shared and/or guided reading, model confirming/self-correcting on the basis of what *sounds right* oral language structure: Child reads I *want* to the park. Educator says, "Is that how we talk? What would make sense here?" With support from the educator, the child goes back and rereads "I *went* to the park".

3. Reading and Viewing

Worthwhile Tasks for Assessment and Instruction

3.4 Initially children will use the pictures to tell the story. Eventually children will use the pictures to make predictions (words) and to confirm their prediction(s).

Observe and note children's participation during group discussions of read a louds and shared reading. Note: Do children use pictures and prior knowledge in making predictions that make sense?

Are children aware of when their predictions don't match the text?

Do children confirm/self correct with support or when prompted?

3.5 Observe and note children's ability to understand text read to them or by them. Do their responses reflect their understanding?

While modelling use of oral language, note children's ability to hear and identify what doesn't sound right. Do children react when the educator makes an obvious mistake when reading?

When conferencing with children during guided or independent reading, note children's confidence when predicting and the support needed in confirming/self correcting.

Do their predictions sound right and make sense? Are they visually similar to the word read? Ex. The word is *grain*, they read *grass*.

Do they realize when their predictions do not produce meaningful reading?

Suggested Resources

Literacy Place Reading Guide

Teaching with the Storybox Reading Program

Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations

3. Reading and Viewing

~~By the end of kindergarten children will~~

~~3.6 begin to use knowledge of sound/letter relationships to problem solve unknown words~~

Elaboration – Suggestions for Learning and Teaching

~~In the contexts of shared and guided reading and shared and modelled writing, talk about letters in relation to the sounds they represent.~~

~~Using oral cloze (p. 65, *Kindergarten Teacher’s Resource Book*) in the context of shared reading, ask children to predict what the word might be on the basis of the initial consonant as well as meaning.~~

~~During shared reading, model for children confirming/self-correcting.~~

Educator Talk

~~Educator reads: “The rabbit hopped.” Hmm, that doesn’t look right, I know the word starts with /j/. What would make sense? Allow time for children to respond. “Let’s reread that sentence. The rabbit /j/umped. Now it looks right and makes sense.”~~

~~Give children daily opportunities to write, developing knowledge of sound/letter relationships as they use invented spelling to record their thoughts.~~

~~See the *Kindergarten Teacher’s Resource Book*, p. 63-68; *Sounds in Action* p. 62-64.~~

~~3.7 begin to match one-to-one spoken to printed word~~

~~3.7 Model for children pointing to the words with a pointer during shared reading (morning message, poems, big books). Eventually have children take turns pointing to the words as they lead the group in reading. It is important that educators point to one word at a time and not glide the pointer under the words.~~

~~During guided reading, have children use their finger to point to each word that is read.~~

**Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations**

3. Reading and Viewing

Worthwhile Tasks for Assessment and Instruction

3.6 During shared and guided reading, note children's ability to predict a word based on sound/letter relationship.

While conferencing with a child during guided reading, observe and note the child's ability to self-correct (with support).

Educator Talk

While reading the book *Snowman*, a child reads...two eyes and a carrot...Educator asks: "Could that word be carrot? What sound does carrot start with?" Child responds /c/. Educator says, "What letter do you see here?" (pointing to the letter "n" for nose.) Child responds /n/. Educator says, "That looks like the word nose. Let's try reading that again." This time child reads...two eyes, and a nose... "You got it...great job!"

3.7 During shared and guided reading, observe and note whether children are beginning to word-match.
Do they slide their finger or pointer without attending to the words on the page? Do children point to each word as they read? (monitor)
Do they realize when they don't match? (monitor)
Do they reread to self-correct?

Suggested Resources

Kindergarten Teacher's Resource Book

Sounds in Action

Literacy Place Working with Words

**Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations**

3. Reading and Viewing

By the end of kindergarten children will

3.8 begin to use some sight words, environmental print, and words that have personal significance to make sense of unfamiliar text

3.9 name most of the letters of the alphabet in context

Elaboration – Suggestions for Learning and Teaching

3.8 Draw attention informally to sight words in the contexts of shared reading and guided reading (e.g., show children the word “the” and ask them if they can find the same word again in the text). As these words are introduced, add them to your word wall, pond, tree, etc. Words can also be added to word rings for children to refer to later.

Have children find their name and put it on the attendance chart upon arrival.

Draw children’s attention to environmental print: EXIT, STOP.

See the *Kindergarten Teacher’s Resource Book*, p. 68-71.

3.9 Help children become familiar with letters of the alphabet in context (ex. signs and labels, songs and poems, big books, daily message).

During shared and guided reading, draw children’s attention to both upper and lower case letters. Have children circle or frame a suggested letter.

Use magnetic letters when writing the daily message to help children recognize particular letters.

See the *Kindergarten Teacher’s Resource Book*, p. 46-62.

Click HERE
to access the K-3 GC04
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grade level expectations

3. Reading and Viewing

Worthwhile Tasks for Assessment and Instruction

3.8 Observe and note children's ability to recognize, locate, and use sight words in the context of reading (ex. shared reading, reading the room, guided reading, or independent reading).

3.9 During shared and guided reading, observe and note which letters children recognize and name.

When conferencing with children, record the letters children can recognize and name.

Kindergarten Teacher's Resource Book Blackline Masters, p. 79-113.

Suggested Resources

Kindergarten Teacher's Resource Book

Literacy Place Working with Words

**Click HERE
to access the K-3 GC04
Amendment for updated
grade level expectations**

3. Reading and Viewing

By the end of kindergarten children will

3.10 respond personally to texts in a variety of ways to demonstrate comprehension

3.11 develop an awareness of different types of text

Click HERE

to access the K-3 GC04 Amendment for updated grade level expectations

Elaboration – Suggestions for Learning and Teaching

3.10 Encourage children to make personal connections to texts they read (e.g., how it made them feel, what it reminded them of, which part they liked best).

After reading aloud to children or doing shared reading, provide opportunities during learning centre time to respond to texts in a variety of ways:

- drawing
- painting
- writing
- sculpture (e.g., plasticine art/playdough)
- talking
- re-telling orally
- drama (acting the story out)

Children need to be exposed to a variety of literature that represents ethnic, gender, social, and cultural diversity and abilities.

3.11 When talking to children about different types of text, it is important to use the proper names (ex. This is a poster about Remembrance Day; today we are going to read a poem).

When introducing literature to children, discuss fiction and non fiction texts and what they mean.

Educator Talk

“Today we are going to read *Sing a Song*. This is a fiction story which means it’s make believe or pretend.” Educators may proceed to ask questions such as “Do tigers really sing?” or “Do tigers take baths in a bath tub?” to help children with what is fiction and non fiction.

Children should have access to a variety of different types of literature (fiction, non fiction). A well stocked reading centre that children have access to and visit everyday allows children to view a variety of literature.

Encourage discussion and value critical thinking about texts. Model using personal experience to ask questions about a text.

Educator Talk

“I wonder why the author made that pig purple – my father’s pigs aren’t purple.”

3. Reading and Viewing

Worthwhile Tasks for Assessment and Instruction

3.10 In the context of read-alouds, shared or guided reading, observe/keep anecdotal records, noting instances of children connecting personally with text.

After reading *My Puppy*, ask children to draw a picture to show what they learned about what dogs need. (SS 1.1)

Samples of children's responses can be date-stamped and included in their portfolio.

3.11 Observe/note the way in which children refer to the texts they are reading and viewing. Ex. Do they say "this is real" when viewing a non-fiction text or "I like the poem we read yesterday."

Suggested Resources

Literacy Place for the Early Years - Reading Guide

- Read-alouds
- Shared Reading BB

Kindergarten Teacher's Resource Book

3. Reading and Viewing

By the end of kindergarten children will

3.12 begin to ask questions about a text

3.13 recognize some basic components of text such as author, illustrator, and title

Elaboration - Suggestions for Learning and Teaching

3.12 Model curiosity and expand understanding by encouraging questioning of text when reading to children.

Educator Talk

“Today we’re going to read The Rescue of Nanoose. This story is non-fiction. Who remembers what non-fiction means? Right! It means that the story is real. This story is about a humpback whale that gets tangled in some rope and can’t get free. How do you think the whale felt when it got tangled in the rope?”

It is important that educators allow time for children to ask questions while reading. Educators should model this by asking questions periodically while reading.

3.13 Point out title, author, and illustrator when sharing books during read-aloud, shared, or guided reading.

Talk about how the title relates to the book, and the difference between an author and an illustrator.

Compare the work of different authors and illustrators.

Note: It is important to draw attention to the fact that sometimes an illustrator is a photographer. This lends itself to the fact that books are “illustrated” in a variety of ways, ex. pictures, drawings, collages, plasticine, etc.

3. Reading and Viewing

Worthwhile Tasks for Assessment and Instruction

3.12 During read-alouds and shared reading, observe which children ask and respond to questions during or after the story.

Note:

- Do children display confidence when asking questions?
- Do children ask questions that may help them better understand the story?
- Do children ask questions about the character(s), setting, storyline, etc. to confirm comprehension?
- Do the questions make sense and relate to the story?

3.13 Note children's responses when asked what an author or illustrator does. Can they distinguish the difference?

Create a class book and ask the children to be "authors" and "illustrators."

Provide pre-made booklets (blank pages stapled together) in learning centres to encourage children to be "authors" and "illustrators."

Suggested Resources

Kindergarten Teacher's Resource Book

Literacy Place for the Early Years - Reading Guide

- Read-alouds
- Shared Reading BB

4. Writing and Representing

By the end of kindergarten children will

4.1 understand that print (illustration/symbols) carries a message

4.2 begin to demonstrate an awareness of audience and purpose

Elaboration - Suggestions for Learning and Teaching

4.1 Demonstrate through modelled and shared writing the connection between oral and written language.

Demonstrate that print carries a constant message, ex. child writes a story about his baby sister in his journal. When he reads it to his friends, is it the same story as when he reads it to the educator.

4.2 Demonstrate that writing has a purpose and an audience. For example, when writing a thank-you letter, involve children in a discussion of who the audience is, why the letter is written, and what information needs to be included so that it will be understood.

During modelled and shared writing, demonstrate writing for a variety of purposes (*Literacy Place Writing*, p. 57):

- to tell a story (narrative writing)
- to describe (descriptive writing)
- to persuade or convince someone (persuasive writing)
- to recount experiences (retell)
- to tell the reader how to do something (procedure), ex. recipe, instruction, rules, etc.
- to explain.

Provide opportunities daily that encourage children to write for different purposes and audiences:

- inviting guests to classroom events
- making lists
- drawing up classroom procedures
- writing messages to parents or friends
- writing thank-you notes to classroom guests.

Read a variety of texts to children to help them make the reading/writing connection and to introduce them to a variety of different types of writing (See *Literacy Place for the Early Years - Writing*).

4. Writing and Representing

Worthwhile Tasks for Assessment and Instruction

4.1 Observe and note behaviours that suggest children's understanding that print carries a message:

- constructing meaning through drawing/writing
- explaining the meaning of their drawings or reading back their writing
- message stays constant.

Observe growth through dated writing samples. When conferencing with children, question them about their understanding of their writing.

4.2 Collect dated writing samples in a portfolio, noting experimentation with simple writing forms, audience, and purpose:

- lists
- birthday cards
- messages/letters
- signs
- labels
- stories
- reading responses.

Use conferences to question children about their audience and purpose.

Suggested Resources

Teaching with the Story Box Reading Program, p. 18-27

Literacy Place Writing Guide

Joyful Learning in Kindergarten Ch. 9

Kindergarten Teacher's Resource Book

4. Writing and Representing

By the end of kindergarten children will

4.3 write simple messages

Elaboration - Suggestions for Learning and Teaching

4.3 Demonstrate writing every day through modelled and shared writing. Model for children stretching out words to hear and represent individual sounds.

During guided and independent writing, children should be encouraged and supported to

- draw pictures to represent their thoughts.
- record the sounds they hear in words (invented spelling).
- use environmental print (see below).

It is important to note that children enter kindergarten at different developmental writing levels. The developmental stages of writing are scribbles, draws, letters, words.

Educator Talk

“Let’s write about fall. When we are learning to write, we put down the sounds we hear. Let’s write “Today is the first day of fall. What sounds do you hear in the word ‘today’?” The educator stretches out the word and supports children in identifying individual sounds. The educator acts as a scribe and records the sounds identified by the children for each word. Early in the year, the sentence may look like this: Today iz the frst day v fol. (Today - spell correctly - used daily message as a resource; is & the - sight words). As children’s understanding of how language works, more letters will be used to represent sounds heard.

Educators need to make writing and other ways of representing an integral part of the curriculum every day. For example:

- write letters at the post office centre
- make signs at the block centre
- record their findings at the water centre or science centre
- make a list of classmates’ names
- make greeting cards at the visual arts centre
- write grocery lists, menus, or prescriptions at dramatic play
- write to the class mascot
- tell stories at the writing centre.

Children may also use environmental print as a strategy to support their writing:

- referring to word walls for correct spelling of sight words that have been introduced
- picture dictionaries
- labels found in the room
- individual word rings (word rings have words that are important to each child).

4. Writing and Representing

Worthwhile Tasks for Assessment and Instruction

4.3 Collect and date-stamp a variety of children's writing samples for a portfolio. See *Kindergarten Teacher's Resource Book*, p. 252-254.) Observe and note if children use a variety of ways to write.

- Do they use drawings to communicate a message?
- Do they use approximation to label pictures?
- Do they use strings of letters or words?
- Do they use letters to represent predominant sounds in words?
- Do they use invented spelling?
- Do they use the environment to support them when writing? (word walls, word rings, picture dictionary).

Initially: children will use drawings and strings of random letters and words.

Eventually: they will use familiar words and invented spelling.

Note: The developmental stages of writing are scribbles, drawings, letters, words.

Suggested Resources

Teaching with the Story Box Reading Program, p. 18-27

Literacy Place Writing Guide

Joyful Learning in Kindergarten, Ch. 9

Kindergarten Teacher's Resource Book

4. Writing and Representing

By the end of kindergarten children will

4.4 begin to develop an awareness of editing strategies

Elaboration - Suggestions for Learning and Teaching

4.4 While it is not expected that kindergarten children will be revising or editing their own work, it is important that they be introduced to the concept. Editing is more about “educator talk” than the actual changes a child may do to a piece of work. This can be done during modelled or guided writing.

Educator Talk

“Today I’m going to write about what I did on the weekend. Let’s see. I’m going to start with ‘I went skating.’ Ok, that’s good. Let’s go back and re-read what we have written. Hey, you know what? I forgot to put a period at the end of my sentence and I think I will add one more sentence just so everyone knows I had fun. Let’s add ‘I had fun’. You know what else? I’m going to add more skaters to my picture because I wasn’t skating by myself. There, now it’s finished.”

During guided writing, conference with children about writing, asking questions/providing feedback that encourages them to think about what they might add or explain. (While emergent writers often do not use this feedback to actually change their writing, being able to respond orally and show where they might put additional information is an important first step in revising.) See *Literacy Place - Writing Guide*, p. 16-17 - Revising and Editing.

4. Writing and Representing

Worthwhile Tasks for Assessment and Instruction

4.4 When conferencing with children, observe and note how they respond to suggestions about their writing. Do they provide more detail verbally when asked about their drawing/writing?

As mentioned previously, it is not expected that children will edit or change their drawing/writing; however, it is important that educators expose children to strategies for editing.

Suggested Resources

Teaching with the Story Box Reading Program, p. 18-27

Literacy Place Writing Guide

Joyful Learning in Kindergarten
Ch. 9

Kindergarten Teacher's Resource Book

4. Writing and Representing

By the end of kindergarten children will

4.5 develop the concept of directionality

4.6 develop one-to-one correspondence between spoken and written words

4.7 understand that letters can be written in upper and lower case (use them indiscriminately)

4.8 use letters to represent the predominant sounds in words

4.9 begin to use some sight words, environmental print, and words that have personal significance to support their writing

4.10 experiment with punctuation
4.11 begin to use spaces between words

Elaboration - Suggestions for Learning and Teaching

4.5 During modelled and shared writing, and through shared reading, help children develop the concept of directionality.

Educator Talk

"I'm going to write the sentence 'I like spring'. I'm going to start at the top of my page on the left side and go across just like when we read."

4.6 During modelled writing, draw children's attention to what you say, what you write down.

Educator Talk

"I know in our sentence 'I like spring' there are 3 words. Let's listen to the sentence again and count the words we hear. I'm going to write one word for every word I say in my sentence."

4.7, 4.8 Display an alphabet chart and have alphabet strips available to children in various centres.

Provide plastic, wooden, or magnetic letters for children to manipulate.

Provide opportunities for children to engage in word and picture sorting activities (e.g., words beginning with the same letter, words beginning with the same sound, rhyming words).

Provide opportunities for children to write every day (journal writing, lists in dramatic play, notes to their friends, signs to let friends know they're not finished with something, etc.). See *Literacy Place - Working with Words*, p. 127-132.

4.9 Encourage children to use the "word wall" when writing. Provide picture dictionaries and word rings to support children's writing.

4.10, 4.11 During modelled and shared writing, help children develop an awareness of punctuation and space between words.

4. Writing and Representing

Worthwhile Tasks for Assessment and Instruction

4.5-4.11 To support observation of children's growth as writers, it is suggested that dated writing samples be kept. Portfolios are a great way to store children's work. During guided writing, or when they are writing on their own, observe

- where children start writing on the page, if they go left to right or write randomly on the page
- use approximations (scribbles, letter-like symbols to label drawings)
- strings of letters of words to convey meaning
- do they represent each word in the sentence
- use the environment to support their writing
- use letters to represent predominant sounds in words
- gradually increasing the number of sounds reflected in words
- some punctuation
- spaces beginning to appear between words

Note: 4.7 **Initially:** use paintbrushes, markers, crayons that are short and thick; **Eventually:** use pencils and unlined paper, produce letters in a range of sizes, produce a combination of upper and lower case letters that may include some letter reversals.

Suggested Resources

Teaching with the Story Box Reading Program, p. 18-27

Literacy Place Writing Guide

Joyful Learning in Kindergarten
Ch. 9

Kindergarten Teacher's Resource Book

Early Numeracy

Early Numeracy

Early numeracy in kindergarten builds on children's desire to make sense of their world and helps them develop and demonstrate their mathematical understanding. Children use mathematics intuitively and develop their understanding of mathematics through their individual approaches to learning. Children need to be given learning experiences that are within the range of things they can do with and without guidance (that is, in their zone of proximal development).

Through active participation in mathematics investigation, including problem solving and discussions, children develop their ability to use mathematics as a way of making sense of their daily experiences. Educators introduce mathematics in kindergarten through active, hands-on, child-centred, and problem-based exploration in various learning centres. Concrete materials provide children with tactile experiences to help them explore and describe mathematical problems and solutions.

Early numeracy in kindergarten is organized into the following four strands:

Number Sense: "Number sense development must begin in kindergarten, as it forms the foundation of number-related ideas to be accumulated throughout the school years." (Van de Walle, c. 2001) Number exploration in kindergarten focuses on the nature and uses of counting, ordering, and comparing. Numbers are used to quantify, locate, identify, name, and measure everything from how many friends in kindergarten to ingredients in a recipe. Giving children a variety of hands-on experiences with numbers will help them develop an understanding of the importance of numbers in their world.

Patterns: Patterns can be heard in language and music, felt in beats in motion, constructed, and described in simple models. Children develop their ability to recognize, extend, create, and use numerical and non-numerical patterns to better understand the world around them, as well as the world of mathematics. As children begin to develop the concepts of patterns, they begin to use this knowledge to predict what might happen next and to solve problems.

Measurement: Children can see from their own experiences that measurement has a very important function in their lives. Through exploration in learning centres, children compare objects using a single attribute such as length, capacity, and mass. They also begin to develop and use the language associated with measurement.

Geometry: Through meaningful exploration of 3-D objects, children begin to develop an understanding of geometric relationships in their environment. In kindergarten, hands-on activities in learning centres provide opportunities for children to sort, build, and describe 3-D objects and help them make sense of their world.

1. Number Sense

By the end of kindergarten children will

1.1 count in a variety of ways

1.2 explore a variety of physical representations of numbers 1 to 10

Elaboration - Suggestions for Learning and Teaching

1.1 Most children come to kindergarten with some prior knowledge of the number sequence from 1-10. Educators scaffold and support this knowledge by providing counting situations that occur naturally through daily tasks, such as those that occur at learning centres.

Children should have many experiences in which they

- count forward to special days, count the number of steps to the slide, etc.
- count backwards while taking items out of the water table.
- count while performing finger plays, songs, nursery rhymes, or exercises (Ten Little Monkeys Jumping on the Bed).
- count on while determining the total on a pair of number cubes.

To encourage “counting on” rather than always counting from 1, children might play a game with a pair of number cubes. Children will identify the number on the first number cube and then count on. Ex. First number cube shows 3 and second number cube shows 5. Child counts 4, 5, 6, 7, 8.

1.2 Children should recognize that there are many ways to arrange a set of objects and that some arrangements are easier to recognize quickly than others. For example:



Show a group of children a dot card for approximately 3 seconds. Ask - How many? Include lots of easy patterns and eventually some more difficult ones as you build their confidence. This activity can be added to the math centre for children to play in pairs or small groups.

Particularly useful equipment would include dice, board games, dominos, playing cards, five-frames, and ten-frames.

Introduce the five-frame and eventually the ten-frame to support children in establishing an anchor for the numbers 5 and 10. Play “five-frame flash”. Flash five-frames to a group of children. Ask how many dots? Eventually this can be played with ten-frames.

1. Number Sense

Worthwhile Tasks for Assessment and Instruction

1.1 Many activities in kindergarten provide children with the opportunity for counting. Observe and note if children can

- count from 1 to 10. Ex. Is the number sequence in order? Are any numbers omitted?
- name the number that comes after a given number, one to nine. Ex. Which number comes after 3? After 6?
- name the number that comes before a given number, two to ten. Ex. Which number comes before 4? Before 6?
- recite numbers from a given number to a stated number (forward - one to ten, backward - ten to one) using visual aids. Ex. Start at 2 and count to 7? Start at 6 and count to 2?

Note whether or not children

- recognize natural counting situations.
- need to line objects up to count them.
- need to touch objects to count them.
- need to start from the beginning when counting additional objects.
- correct one another as they count together.

Educator counts to 10 omitting some of the numbers. Allow the child(ren) to fill in the numbers you skip.

1.2 Observe which representations of numbers are easier for various children to identify. Note

- whether children count the dots on a number cube or simply recognize the pattern.
- whether a linear representation or a larger number makes it harder to identify than other (e.g., paired) representations.
- what else children discover about representing numbers.

Have children work in pairs. Provide a set of cards and ask them to sort them according to number. Ask - Which were the easiest to sort? Why?

E.g. “5” cards



“8” cards



Suggested Resources

Investigations: Collecting, Counting, and Measuring

1. Number Sense

By the end of kindergarten children will

1.3 count to determine the number in a group (0 to 10)

Elaboration - Suggestions for Learning and Teaching

1.3 As contrasted with rote counting, meaningful counting involves an understanding of the following principles:

- One number is said for each item in the group.
- Counting begins with the number 1.
- No item is counted twice.
- The arrangement of objects is irrelevant.
- The number in the set is the last number said.

Children might play a variety of games that require counting:

- bowling (counting both the pins knocked down and the pins left standing).
- board games (counting the number of spaces to be moved based on a spin).
- throwing bean bags (counting how many land in the target).
- sing counting and rhyming songs.
- attendance sticks.

Counting Jar (Investigation 2 from *Mathematical Thinking in Kindergarten*) is a great way to get children counting weekly or as appropriate. Add a number of objects to a jar. Have children count to find out how many are in the jar. Represent their findings on a small piece of paper.

1.4 create sets of a given number (0 to 10)

1.4 Once children are able to determine the number in a group by counting, the next step is to be able to create a group of that number. This can best be accomplished in context. For example:

- In the dramatic play centre, children might be asked to set the table for 5, to put birthday candles on a cake for someone turning 6, etc.
- To extend the counting jar activity, have the children create another set of the number they have identified with other manipulatives.

Collecting, Counting, and Measuring: Investigation 1 (p. 4-21)

1. Number Sense

Worthwhile Tasks for Assessment and Instruction

1.3 Observe children to determine their understanding of each of the principles underlying meaningful counting.

In the math centre, add a variety of counters (counting bears, cubes, etc.) in containers. Have the children grab a handful of counters and count how many.

Note the way in which children count:

- Do they touch each object as they count?
- Do they show confidence in their counting or feel the need to check?
- Do they set items aside as they count them?
- Do they check their counting in the same order as the first count, or in a different order?

1.4 Note children's confidence and the strategies used when creating sets of a given number:

- if a model set of that number is visible
- if no model of that number is visible
- with a given number of items
- which must have more items than a given amount (e.g., sets with more than 5)
- which must have exactly 1 more or 1 less than a given amount.

Children might select a favourite number and create a "book" showing that number in many different ways. (*Investigation 1 - Collecting, Counting, and Measuring*)

Suggested Resources

Investigations: Mathematical Thinking in Kindergarten

Collecting, Counting, and Measuring

1. Number Sense

By the end of kindergarten children will

1.5 show a given number as two parts concretely and name the two parts (2 to 10)

Elaboration - Suggestions for Learning and Teaching

1.5 Children should be given many opportunities to represent a given number as two parts (part-part-whole), using their fingers, manipulatives, or other objects. Ex. Four can be seen as 2, and 2, 3, and 1, 1 and 3, etc.

Have children work in pairs in the math centre recording combinations of a given number found when playing “snap”. Have them snap a cube-a-link tower of a given number into 2 parts and record the different combinations on a chart. Initially create towers up to 5. Eventually, extend this, working with numbers up to 10.

Play “How Did I Show 6?” Have the children work in pairs. Each player has 6 objects, such as counting bears, buttons, or erasers. Each child separates their objects into 2 parts, concealing how they separated the objects. Ex. 3 and 3 or 2 and 4, etc. Children take turns guessing the combinations created by the other.

1. Number Sense

Worthwhile Tasks for Assessment and Instruction

1.5 Ask the children to count out six counters. Shake them up in both hands and then open hands to display a “6” combination, e.g., 4 in one hand, 2 in the other. Have children represent their different combinations. Observe and note:

- How can 6 be separated into 2 parts?
- Can children easily show different combinations?
- Do they need to count out each combination?

Play “five-frame tell about”. Ask children to put the given number of counters on a five-frame. Have children tell about the given number. Ask questions like

- What do we see when “2” is represented on a five-frame? Look for answers like - There are 2 counters and 3 empty squares.
- How many more do you need to make 5? As children display confidence using the five-frame, expand to the ten-frame.

Suggested Resources

Investigations: Mathematical Thinking in Kindergarten

Collecting, Counting, and Measuring

1. Number Sense

By the end of kindergarten children will

1.6 determine which group has more, which group has less, or which are equivalent

Elaboration - Suggestions for Learning and Teaching

1.6 Most children have an intuitive idea that, to decide if one group is more than another, it is possible to match items up in one-to-one correspondence to see if one group has any leftovers.

Children should have many opportunities to pose or answer questions such as

- Who has less? Who has more?
- Are there as many napkins as plates?
- Are there more boys or girls here today?
- Is there a child here for every name tag?
- Are there the same number of chairs and children?

Children can vote for an idea. To clarify the results, the “yes” line and the “no” line can hold hands to find which line has more (or less).

Introduce children to Question of the Day (p. 54, *Mathematical Thinking in Kindergarten - Introduction*). Early in the year, you might ask “Are you a boy or girl”? The children add their clothespin to the appropriate row. Compare the rows to find out if there are more boys or girls or if the two groups are the same. The question can be changed regularly to reflect what is happening in kindergarten.

Use cube-a-links for children to represent the number of letters in their name (sticky dot circles can be added with each letter of the child’s name). Have children determine whose name has more letters than theirs, less letters than theirs or whose name has the same. (SS 1.1) This activity can be done as a follow-up activity to books such as *Chrysanthemum* by Kevin Henkes (EL 3.1).

Invite children to play “Dot Challenge”. Provide a deck of dot cards (1 to 10 dots each). Each child turns up a card; the one with the greater number of dots gets both cards. The winner is the one finishing with the greater total number of cards.

1. Number Sense

Worthwhile Tasks for Assessment and Instruction

1.6 Observe and note children's use of language to describe quantities when comparing two sets. Do they use terms like more than, less than, the same as?

When doing Question of the Day, observe and note children's ability to determine which groups have more, less, or if the two groups are the same.

Observe whether or not the following extraneous factors influence children as they compare:

- arrangements that take up different amounts of space, for example



- arrangements involving different heights, for example



Note whether or not children regularly use matching to answer questions. Ex. are there enough napkins for everyone in the group? Enough skipping ropes for those who want them?

Suggested Resources

Investigations: Collecting, Counting, and Measuring

1. Number Sense

By the end of kindergarten children will

1.7 use symbols to represent numbers in a variety of meaningful contexts

Elaboration - Suggestions for Learning and Teaching

1.7 Numeral writing should be taught in context and as requested, i.e., as children are ready to record information and need to write the appropriate numeral. Children should be shown how to make numerals and guided in this process.

Children should be given many opportunities to write numbers in context. For example:

- write their phone numbers in a class book
- record numbers on a hopscotch grid or number line
- have children go on a number hunt
- add paper to dramatic play for children to record numbers when playing store, restaurant, etc.
- when bowling, have children record using the numeral that represents the number of pins left standing or the number of pins that have fallen.

1. Number Sense

Worthwhile Tasks for Assessment and Instruction

1.7 Children should not be expected to write rows of numbers. Educators should observe and note that children are writing numerals for a purpose or when needed. Ex. their phone number, the number of friends in kindergarten, etc.

Have children play in small groups or individually. Have one child roll a number cube. Record each number rolled on an organizer board (see appendix). Have children date-stamp and add to their portfolio.

Suggested Resources

Investigations: Collecting, Counting, and Measuring

2. Patterns

By the end of kindergarten children will

2.1 demonstrate an understanding of repeating patterns (two or three elements) by identifying, describing, copying, extending, and creating patterns.

Elaboration - Suggestions for Learning and Teaching

2.1. Children will notice and hear patterns in many contexts. It is important to help them recognize the mathematical aspects of these patterns. Before they can create patterns, children need a great deal of experience with given patterns. For example, use children to model a “stand sit” pattern and then have small groups copy and extend. Have children read/describe the pattern.

Children will require many patterning experiences with concrete materials prior to recording patterns on paper and/or working from patterns on pictures.

Have children reproduce, extend, and create patterns that focus on

- action: touch toes/pat head/touch toes
- sound patterns: clap/clap/clap/pause/snap/snap/snap
- shape: circle/square/circle/square
- size: big/little/big/little
- colour: red/blue/red/blue
- orientation: sit/stand/sit/stand

Educators should also draw children’s attention to naturally occurring patterns. Ex. seasons, morning, noon, night, days of the week, etc., as well as patterns in familiar songs, nursery rhymes, etc.

2. Patterns

Worthwhile Tasks for Assessment and Instruction

2.1 Children should initially identify, describe, copy, extend, and create repeating patterns of two elements and eventually patterns of three repeating elements using actions, sounds, colour, size, shape, and orientation.

- 2-element patterns (A/B/A/B/) early
- complex patterns (AA/B/AA/B/AA) later
- 3-elements (A/B/C/A/B/C) late stage

Ask the children to copy an action pattern that you model.
Ex. clap/clap/snap/snap.

Ask the children to use concrete materials to copy a pattern.

Show the child a pattern: red bear/blue bear/red bear/..... Ask the child to finish or *extend* the pattern. What comes next? (Activity, p. 12 from *Patterns Trains and Hopscotch Paths*)

Have children create their own patterns with a variety of material such as play-dough and cookie cutters, finger paint, teddy bears, and pattern blocks. Eventually have children describe the pattern.

Have the children create snake patterns with the pattern blocks and then reproduce it with paper shapes. Eventually have children read the pattern.

Suggested Resources

Investigations: Patterns, Trains and Hopscotch Paths

Brown Bear, Brown Bear, What Do You See? by Bill Martin Jr./Eric Carle

3. Measurement

By the end of kindergarten children will

3.1 compare two objects based on a single attribute, such as length (height), mass (weight), and volume (capacity)

Elaboration - Suggestions for Learning and Teaching

3.1 It is important at this stage that children focus on “what it means to measure”, rather than “how to measure with non-standard or standard units.” Educators can provide a variety of items in the math centre for children to explore and compare length, capacity, and mass.

Length: Many children’s first experiences with measurement involve length. They are often interested in who is taller, which toy car went further, etc. As children become familiar with the various terms associated with length (long, short, wide, tall, high, far), they should have opportunities to compare lengths by measuring directly (standing two children back to back). It is important that children have a significant amount of comparison experience prior to using non-standard or standard units for describing length.

It is important for educators to provide many opportunities for children to compare the lengths of two objects and use the language associated with it (longer, taller, shorter, or almost the same):

- comparing structures they have built in terms of height and width
- comparing their height, arm length, shoe length (SS 1.1)
- various objects in the environment.

Capacity: Children enjoy filling containers with sand and water to determine their capacities. It is important to provide a wide range of materials including many sizes and shapes of containers.

- Children might explore the effect of pouring the same amount of water or sand into containers of different shapes and sizes. The focus should be on comparison, using such words as less, more, bigger, smaller, almost the same.
- Children might compare the capacities of different types of cups, spoons, pails, boxes, and bowls and explain the comparison.

Mass: Children are often interested in the “heaviness” of objects, particularly when they have to move them. Some of the objects of most interest to children in this respect are quite large, and only gross comparisons can be made. However, this interest can be transferred to smaller objects that are amenable to comparison on a balance.

- Children might compare the masses of different rocks, fruits, and vegetables.
- Children can use a bucket balance to determine which item is heavier, lighter, or almost the same.

3. Measurement

Worthwhile Tasks for Assessment and Instruction

3.1 Observe and note children's use of language to compare two objects. Educators may consider asking the following questions to scaffold children's learning:

- Can you find a block that is longer than mine? Shorter than mine?
- Whose block tower is taller?
- Which is heavier, the rock or the feather?
- Which container holds more water?

Length

A story such as *Chrysanthemum* by Kevin Henkes could be read to the children (EL 3.1). Have the children use cube-a-links to represent the number of letters in the child's name. Have the children compare names. Whose name is longer, shorter? (Investigation 4 *Collecting, Counting and Measuring*, p.52-61) (SS1.1)

Use their name towers to find things in the math centre that are longer/shorter than their name (cube tower). Sort the items. Record their findings.

As children compare the length of objects, note

- whether or not they recognize the importance of a baseline, i.e., comparing by starting both objects at the same place.
- their use of language when comparing two objects (shorter, taller, almost the same as).

Capacity

Observe and note children's use of material to compare two objects (capacity/volume) and the language associated with it (lighter, heavier, almost the same as).

Mass

Observe children as they consider the masses of objects. Note whether or not they

- accurately use terms like "heavier," "lighter," "heaviest," "lightest."
- are familiar with which types of materials are generally light or heavy.

Suggested Resources

Investigation in Number, Data, and Space: *Collecting Counting, and Measuring*

How Many in All?

4. Geometry

By the end of kindergarten children will

4.1 sort 3-D objects using a single attribute

4.2 build and describe 3-D objects

Elaboration - Suggestions for Learning and Teaching

The block centre is an important place for children to regularly explore and experiment. As they make their constructions, they begin to learn, often through trial and error, about the attributes of various shapes. Early kindergarten experiences should include sorting and describing 3-D shapes.

4.1 Sort

Children should be given many opportunities to sort based on a single attribute (size, shape, colour, etc.) in the context of everyday activities (ex. putting blocks away in the proper place). With experience, children learn that each shape has many attributes and that one shape may fit in more than one category.

- During a large group activity model, demonstrate sorting 3-D objects using a single attribute and explain your sorting rule. For example, sort items based on size, shape, colour, etc.
- In the math centre, provide a variety of 3-D objects (geo-blocks, pattern blocks, attribute blocks, etc.) for children to sort based on a single attribute.

4.2 Build

Children's exploration and development are enhanced by the educator's interest and questions, space and time to build and elaborate, opportunities to discuss their constructions, and permission to leave them standing for free play and additions.

As children engage in building activities, they have many opportunities to explore geometric concepts. Ex. How can the same blocks be arranged in different ways? Which blocks make the best bases for structures? Which are most stable? How many different blocks can be arranged for strength?

Provide regular opportunities for children to build 3-D objects using a variety of materials such as boxes, cans, balls, paper, play dough, paper rolls, etc.

Describe

Encourage children to describe given 3-D objects using words such as big, little, round, like a ball, like a can, etc.

- Place a 3-D solid in a feely-bag. Provide a variety of matching real-world objects (ball, can, party hat, pencil, etc.) Have the child describe one object found in the feely-bag to a partner or small group. Encourage children to use words such as big, little, round, like a box, like a can, etc., giving one hint at a time to see if the child(ren) can guess what real-world object the shape represents.

4. Geometry

Worthwhile Tasks for Assessment and Instruction

4.1 Observe and note children sorting a given set of 3-D objects using a single attribute such as size, shape, etc, and explain their sorting rule.

- Provide pairs of children with a collection of toys that one might find in a toy box. These might include balls of various sizes, several building blocks, boxes containing games, cylindrical containers holding games (ex. Pick-up sticks) and building material (ex. Linking blocks, Lego). Ask the children to sort these according to their rules.
- Provide a number of grocery store containers. Ask the child to sort them and to explain the sorting rule. Have the child sort in a different way.

4.2 Take pictures of 3-D structures to add to children's portfolios.

Observe and note if children use words such as big, little, round, like a box, like a can, etc. to describe 3-D objects. Educators might consider the following questions to support children in the use of the language:

- Is the object big or little?
- Is the object like a box?
- Does the object roll in your hand?
- Are the sides flat or round?
- What is the same? Different?

Note: Children's exploration and development are enhanced by the educator's interest and questions, space and time to build and elaborate, opportunities to discuss their constructions, and permission to leave them standing for free play and additions.

Suggested Resources

Investigations: *Making Shapes and Building Blocks*

Social Studies

Social Studies

Children bring to kindergarten their own unique understanding of the world. Social Studies curriculum builds on their natural curiosity as they explore and discover the world around them and make connections to people and places.

Social Studies in kindergarten is organized into the following three strands.

In the first strand, *I am Unique*, children will explore their relationships with others and with the world beyond themselves. They will develop an awareness of themselves as being unique and special and identify needs and wants that are common to all children. They will identify and describe groups to which they belong and demonstrate an understanding that cooperation is an important part of being a member of a group.

In the second strand, *Family*, children will identify the important people that they consider as members of their family and extended family. They will gain an understanding that families have historic roots. They will explore that families everywhere have varied traditions, rituals, and celebrations.

In the third strand, *Community*, children will explore their own community and the connections between their community and other communities. They will develop an awareness that communities depend on each other to meet their needs and wants. They will also begin to develop some basic mapping skills as they explore their community.

Children will be provided with a variety of opportunities through age-appropriate, play-based learning activities to explore and experience social studies through the lens of personal experiences in their daily lives.

1. I Am Unique

By the end of kindergarten children will

1.1 recognize and discuss personal interests, characteristics, and preferences that make them unique and special

Elaboration - Suggestions for Learning and Teaching

1.1 This first outcome helps children to further develop an understanding of themselves. The value that individuals place on their unique qualities comes from within, as well as from interactions with others.

Identify characteristics unique to each child:

- name
- address
- birth date
- height
- hair colour
- eye colour

Children's names should be displayed in many places in the kindergarten.

A story such as *Chrysanthemum* by Kevin Henkes could be read to the children. (EL 3.1) Have the children use the cube-a-links to represent the number of letters in the child's name. (EN 1.2) Have the children compare names. Whose name is longer, or shorter? (EN3.1) (EN Link-*Collecting, Counting and Measuring*, p. 52-61.)

Compare baby pictures with present-day pictures.

Have children draw self-portraits, or the educator could trace each child on large piece of paper and then the children draw in their own features such as hair and eye colour and clothes they are wearing on that particular day. (CD 1.1 & EN link-Investigations: *Counting Ourselves and Others*-Choice Time, p. 25)

A valuable prop for a kindergarten is a hand-held mirror or a mirror inside a box. The mirror can be used to teach children understanding of themselves as unique and special.

Brainstorm activities, foods, and things that children like or dislike. Use this information as part of a class "Wall of Fame." Display photographs, silhouettes and information about each child as part of the "Wall of Fame."

1. I Am Unique

Worthwhile Tasks for Assessment and Instruction

1.1 Create a class big book using the stem sentence:

Child's name likes to...

Encourage children to contribute ideas for their classmates.

This will illustrate children's understanding of similarities and uniqueness.

See *Discovery Links Social Studies Teacher's Guide - Entry*, p. 4, for the shared writing activity, "I can..."

Suggested Resources

Discovery Links:

Teacher's Guide, p. 1-7, 29-30

My First Birthday Gift - BB

We Are Special - BB

Investigations:

- *Counting Ourselves and Others*
- *How Many In All*

1. I Am Unique

By the end of kindergarten children will

1.2 begin to develop an awareness of needs and wants that are common to all children

Elaboration - Suggestions for Learning and Teaching

1.2 This outcome is intended to create an awareness that there are basic human needs. Children form a particular social group that is vulnerable, requiring others to provide for these needs. The most basic of needs are air, food, drinking water, and shelter. In order for children to become contributing members of society, they also need to be protected and loved. They need to feel as though they belong and that they are worthwhile.

Discuss the concept of “wants”. Ask children to think about where they get their ideas about what they want. Help them establish the idea that some wants are based on needs and others come from the desire to have something that is made to look exciting. For example, “I want a hug” fulfills an important need of love, belonging, and security, whereas “I want a “Webkin” (or whatever the current childhood fad is) fulfills a want created from outside media.

Through modelled writing, record needs and wants. (EL 4.1) Children could also make a poster cutting out pictures of one thing they need and one thing they want.

Set up a store in dramatic play with items children need and want. Tell the children they have to buy a certain number of things they need and a certain number they want.

National Children’s Day is November 20. Through whole group discussion, generate a class concept of what it means to be a child. Identify needs and wants of children. An activity centre to support development of this concept might include children’s games, art, music, and literature from around the world.

Use resources from *Discovery Links* to develop the concepts of needs and wants through a shared reading experience.

1. I Am Unique

Worthwhile Tasks for Assessment and Instruction

1.2 Ask children to draw a picture showing something they “need” (CD 1.2). Pictures could be sorted as a large group activity into physical needs (food, water, air, etc.) or emotional needs (hug, love, etc.).

See *Discovery Links Social Studies Teacher’s Guide*, p.11, for a shared writing activity. Are children able to complete a chart of “I need....or I want ..?” (EL 4.3).

While children are playing in the store, observe and note who purchases both needs and wants. Pictures could be taken and added to their portfolios.

Listen to the language children use in their daily interactions.

- Are they using terms related to needs and wants?
- Do they say things like “*I need that crayon to finish my picture.*” or “*I want crayons like my friends?*”

Suggested Resources

Discovery Links:

Teacher’s Guide, p. 8-24, 30-31

We Need - BB

Needs and Wants Poster

My Puppy - Literacy Place

1. I Am Unique

By the end of kindergarten children will

1.3 demonstrate that cooperation is an important part of being a member of a group

Elaboration - Suggestions for Learning and Teaching

1.3 Select and read a book about the importance of cooperation in groups (EL 3.1). Discuss the importance of taking turns, listening to others, participating, sharing, etc. when you are part of a group (EL 1.8).

Help children identify groups to which they belong. Some may attend groups associated with music, sports, Sparks, Beavers, or religious groups. All children go to kindergarten and have friends and a family. Use the Big Book - *My Groups* Discovery Links to support this activity.

Provide opportunities for children to work together. Ex.

- relays
- board games
- painting or creating a class mural (Investigations *Shape of Things*).

1. I Am Unique

Worthwhile Tasks for Assessment and Instruction

1.3 Give children pictures of their classmates and ask them to sort the pictures into groups. The “sorting rule” must be explained. Ex. children may sort groups by hair or eye colour, who plays hockey, or who likes Webkins.

Observe and note children’s social behaviour as they play in groups. How do they get along with others? Pictures could be taken of children playing in a group or forming a group and added to their portfolio.

Suggested Resources

Discovery Links:

Teacher’s Guide, p. 15-21, 25, 31-32

Cooperation - Photo cards

Getting Along Poster

My Groups - BB

2. Family

By the end of kindergarten children will

2.1 identify and describe their family

Elaboration - Suggestions for Learning and Teaching

2.1 Reminder: Family make-up may be different than what is considered to be the traditional family. Be sensitive to the needs of all children.

Do a mind map to discover children's ideas of family.

Have children bring in a picture(s) of their family.

Use connecting people to determine the number of people in each child's family. Have them record the results.

Have children draw their house and add their family to their house.

Read several books about families and discuss common characteristics (EL 3.1). Be certain to read a cross-section that can open the discussion about what they consider family.

Make a large piece of butcher paper into puzzle pieces. Do not leave the edges straight, but make the outside edges like the inside pieces so that the puzzle could go on forever. Ask them to put the face of one member of their family on each piece. Cut the puzzle out and use it as a tabletop toy to demonstrate the links between family members.

Provide a variety of props (felts, play people, dolls, etc.) to support children in identifying and describing their family.

See also *Discovery Links*, p. 35-38

2. Family

Worthwhile Tasks for Assessment and Instruction

2.1 Collect drawings done by the children of their family. Have them label their drawings and add to their portfolio.

During group discussions about families, observe and note children's participation.

As children use props in their play

- Do they name family members?
- Do they include extended family?

Suggested Resources

Discovery Links:

Teacher's Guide, p. 35-38, 40-42

Favourite Trees - BB

Sing a Song - BB

2. Family

By the end of kindergarten children will

2.2 recognize that families have varied traditions, rituals, and celebrations

Elaboration - Suggestions for Learning and Teaching

2.2 In discussing traditions, rituals, and celebrations, it is important to be inclusive of different cultures.

Create a class book about family roots with a page for each child. It might begin with a page by the educator showing a photo or drawing of the educator, and a sentence might read **My name is Mr. O'Reilly and I have some Irish roots.**

Organize a tea and have the children invite one grandparent, or a special older family member, or a friend of the family.

Invite family members and people from the community, including those of other nationalities or birthplaces, to share information about their culture. Encourage children to identify similarities and differences among people.

Add props and accessories to dramatic play, block and art centres (dress-up clothes and dolls representing different cultures and ethnic groups; crayons and paint to portray varying skin colours, etc.) (CD 1.3).

Discuss with children how all families have their own unique and meaningful ways to celebrate, which over time become traditions, rituals, and special celebrations in their family and community. Ask children to bring things from home to share examples of traditions, rituals. Record the responses on chart paper (EL 4.2). Educators may wish to invite a family or community elder (senior citizen) to speak to the children about some of the traditions and rituals.

Make the music centre a celebration of family diversity by including a variety of cultural music from your region and around the world. Ask parents to help you collect this by having them provide you with any special cultural music of their family (CD 1.1).

Invite family members to share

- traditional music
- games
- cooking/baking
- art.

2. Family

Worthwhile Tasks for Assessment and Instruction

2.2 Have children draw and discuss a family tradition or celebration.

As a shared writing activity, write a thank-you letter to special visitors. Observe and note children's responses to what they learned.

Suggested Resources

Discovery Links:

Teacher's Guide, p. 51-58

We Celebrate - BB

Families Celebrate Special Days - BB

New Year's Celebrations - Photo Cards

3. Community

By the end of kindergarten children will

3.1 begin to develop an awareness of their community

3.2 begin to develop an awareness of the connection between their community and other communities

Elaboration - Suggestions for Learning and Teaching

3.1 When possible, take children for a walk through their community. Through modelled writing (mind map), record children’s responses to what they know about their community.

Visit different places in the community or have people from the community come as guests (farmer, fisherman, somebody from the rink, town hall, doctor’s office, etc.).

Pictures could also be taken and displayed in the classroom of different places in the community (church, hospital, park, town hall, rink, farm, etc.).

3.2 Create a K-W-L chart with the children about how we are connected to people in other communities.

Know	Want to Know	Learned

Using the big book *Friendship Salad*, have the children bring in one piece of fruit. Discuss and locate on a globe where each piece of fruit comes from and how it gets here.

- *Be sensitive to children who may have challenges in bringing in fruit and conscious of food allergies.*

Arrange for a guest speaker, such as a truck driver, to visit the kindergarten and explain his/her job of connecting communities by transporting goods. Other guest speakers to consider are farmers, fishermen, merchants, or local manufacturers to illustrate other ways of connecting communities.

Ask the children to bring empty food containers from home. Examine the labels and identify on a globe where they originated.

3. Community

Worthwhile Tasks for Assessment and Instruction

3.1 Observe and note children's responses to the mind map activity.

Have the children draw and write about a place in the community (may be a place visited by the whole class, a place their family works, etc.).

Create a "Tourist Information Booth" in dramatic play. Provide Island maps, tourist guides, pamphlets of community attractions and events, etc. Observe and note children's awareness of their community.

- Do they identify different places in their community?

3.2 Complete the "what did we learn" column of the K-W-L chart. Observe how children demonstrate their knowledge when contributing to the chart.

Suggested Resources

Discovery Links:

Teacher's Guide, p. 63-78

Friendship Salad & Making Friendship Salad - BB selection

Making Connections - Photo Cards

All About Provinces and Territories...Prince Edward Island

To Town - BB

Quiet in the Library - BB

Globe

3. Community

By the end of kindergarten children will

3.3 begin to develop an awareness of maps

Elaboration - Suggestions for Learning and Teaching

3.3 Some children will have a prior knowledge of maps, while for others, the concept will be a new idea. Representing real things by signs and symbols is an important skill to be developed.

After reading a book such as *Rosie's Walk* by Pat Hutchins, take the children for a walk in the community. Ask the children to try and remember what they saw on their walk. When you return to kindergarten, have the children draw/write what they saw (EL 4.3, CD 1.2).

A great way to introduce the idea of maps to children is to have them sketch a block structure they have made. Educators can model for children how completing a sketch can help them re-create a well-loved block structure. When children are in the block centre, suggest they produce a sketch of their structure; the next day, have them use it as a blueprint to reconstruct their structure. This will encourage children to begin “saving” their block structures by sketching them (CD 1.2).

Post a map of your community and examine it together. Talk about how the map does not represent the actual size of the place, but rather is a drawing. This concept is more easily understood if children are familiar with representing their block structures through drawings. Such representations help them understand that a drawing is not exactly like the item it represents.

Post a world map or have a globe in the classroom. When reading books aloud, identify the setting and locate the place on the map or globe. Educators and children may also wish to determine where a book has been published and find this place on the map/globe.

Whenever the opportunity is present, encourage children to use positional vocabulary such as *near, far, under, over, back, or front* (H&PD 1.3).

3. Community

Worthwhile Tasks for Assessment and Instruction

3.3 Use an activity such as a scavenger hunt, a treasure-map activity, an Easter Egg hunt, or a hot-cold hunt to observe children's basic sense of direction and mapping skills (EL 1.4).

Add children's sketches of their block structures to their portfolios.

Play direction games with children during transition times. Fill in time by asking them to follow a series of quick directions such as stand behind your chair, stand near your friend, sit farther away from your friend, etc. As children become proficient at this game, have them give the directions. This is also a good game for the gym or outside (EL 1.4, H&PD 1.1, 1.3).

Suggested Resources

Discovery Links:

Teacher's Guide, p. 63-78

Making Maps - BB selection

A Treasure Hunt - BB selection

Treasure Map - Poster

My Neighbourhood - Poster

*A Photo of the World...*Poster

*A Photo of Canada...*Poster

Globe

Science

Science

Children have a natural curiosity about their surroundings - a desire to explore and investigate, see inside things, find out how they work, and find answers to their questions. In a learning environment rich in materials to explore, and with appropriate support and guidance, children can develop confidence in manipulating, exploring, and creating with a variety of materials, as well as develop language to express and reflect upon their experiences.

In kindergarten, children will explore the world through the five senses and develop vocabulary to express what they have seen, touched, heard, tasted, and smelled. Through whole-group, small-group, and individual investigation, and exploration in learning centres, children will begin to use some of the scientific process.

The scientific processes most appropriate to kindergarten children are the following:

- Observation - using the senses to gather information about objects or events. Ex. After making various flavours of Jello, children taste and discuss their favourite flavour or colour.
- Comparing - looking at similarities and differences in real objects. In kindergarten, children begin to compare and contrast ideas, concepts, and objects.
- Classifying - grouping and sorting according to properties such as size, colour, use, etc.
- Measuring - quantitative descriptions made by observers either directly through observation or indirectly with a non-standard unit of measure (string, cubes, etc.).
- Communicating - ideas, directions, and descriptions orally or in written form such as pictures, maps, graphs, or journals so others can understand what you mean. Ex. Making signs with temporary/invented spelling or participating in class discussions.

Math & Science for Young Children, 3rd Ed., c. 1989

In kindergarten, developing this way of thinking and learning is done through integrating science through literacy, numeracy, and the arts.

1. Exploring the World Using Our Senses

By the end of kindergarten children will

1.1 become aware of the five senses

Elaboration - Suggestions for Learning and Teaching

1.1 It is important that educators encourage and support children as they use their five senses to discover and explore the world around them. The five senses are naturally used in everyday situations and therefore not intended to be addressed in a thematic way.

In order to support the scientific process, it is important for educators to scaffold children's learning by asking open-ended questions such as

- Look more closely. What do you observe?
- Where do you think we could find out more information about_____?
- What does it remind you of?
- Haven't we seen something like that before?
- What do you think that is?

After reading the book *Going to the Park With Grandpa*, visit a park or outside area. Have the children use their five senses to discover and describe the environment. Have the children do a written/drawn response to what they have seen, smelled, heard, or touched. This could be done at various times of the year (summer, fall, winter, and spring). Have the children record their findings each time. Do they see the same things? Do they smell the same things? Are there different sounds? etc. (EL 3.1, 4.3).

Material can be brought into the kindergarten at different times of the year and added to a sensory table for children to explore and investigate.

- **Fall** - apples, pumpkins, leaves, sunflowers, seeds, nuts, etc.
- **Winter** - snow, ice, mittens, etc.
- **Spring** - pussy willows, soil, seeds, mud, etc.
- **Summer** - sand, shells, flowers.

Have the children write about something they can smell, hear, see, or touch in their classroom periodically throughout the year (EL 4.3).

Discuss how technology helps people compensate for sense organs that do not function properly (ex. eye glasses, Braille, hearing aids, sign language). Do they use their sense of touch to count?

1. Exploring the World Using Our Senses

Worthwhile Tasks for Assessment and Instruction

1.1 Place an avocado seed in the science centre for children to explore. Ask the children to predict and record what they think it is. Observe and note how they explore the seed. Do they smell it, shake it, touch it, etc.? After everyone has had a chance to predict and record their predictions, bring out the avocado and allow the children to taste it to figure out what it might be.

After reading *The Five Senses* by Alki, or another book about the five senses, have children brainstorm things they can see, taste, smell, touch, or hear. Observe and note children's participation and responses.

The children could create a "Five Senses Journal". Throughout the year, encourage children to add things (drawings or pictures cut from old magazines to represent what they can smell, taste, hear, etc.) to their Five Senses Journal.

Ex: I can smell....I can taste...I can hear...(children should be encouraged to use invented spelling to label pictures/drawings added to each (EL 4.3, 4.8).

The children's observation and recording of their walk to the park or outside could be date-stamped and added to their portfolio.

Suggestion - you might fill your sensory table with snow and have the children feel the snow without their mittens. Have them observe and record what the snow looks like when you bring it in, what it looks like after they have played with it. How does it feel when they have mittens on? When they take the mittens off? The children's recordings could be added to their portfolio.

Suggested Resources

The Five Senses - Alki

Going to the Park With Grandpa - Literacy Place

The Five Senses Theme Book Library

1. Exploring the World Using Our Senses

By the end of kindergarten children will

1.2 develop and use vocabulary associated with the five senses

Elaboration - Suggestions for Learning and Teaching

1.2 Educators should be encouraging growth in observation and use of related vocabulary. Children may use terms such as nice, gross, and yucky and should be helped to use more precise descriptions such as cube, brown, and rough.

During a modelled writing activity, create vocabulary lists to encourage the children to use descriptor words. Ex.

- It smells like...
- It tastes like...
- It sounds like...
- It feels like...
- It looks like...

These word lists could be added to the science centre and/or the writing centre. Encourage children to use descriptor words in their writing. If wall space is limited, the word lists could be made into a book and placed in the science and/or writing centre.

1. Exploring the World Using Our Senses

Worthwhile Tasks for Assessment and Instruction

1.2 After reading a book about the five senses, have the children brainstorm things they can see, taste, smell, touch, or hear. Observe and note children's participation and responses.

Observe and note if children use the five senses vocabulary to describe their world.

- I can smell buttery popcorn.
- I hear loud music playing.
- The ice feels smooth.

Suggested Resources

The Five Senses - Alki

Going to the Park With Grandpa - Literacy Place

The Five Senses Theme Book Library

Health and Physical Development

Health and Physical Development

Young children begin kindergarten at different stages of development. Their physical growth and maturation are important aspects of their overall development. It is important for children to establish a positive attitude towards health, safety, and physical development in order to build a foundation for lifelong participation in, and appreciation for, healthy living. By participating in physical activities, becoming aware of healthy food choices, and learning to observe safety rules, children develop attitudes and practice behaviours that promote well-being and an active, healthy lifestyle.

Children need daily experiences to help them connect the important relationships between their personal and physical development and their health and well-being. Supporting the future health and well-being of children involves providing many experiences for them to

- participate in physical activities, games and play.
- help them learn about their growth and development.
- begin to understand the important relationship between physical activities, nutrition, safety, health, and recreation.
- understand their role in maintaining a healthy lifestyle.
- develop independence and problem-solving skills.

When the kindergarten program partners with home and community to provide experiences that promote health and physical development, every aspect of a child's life can be enhanced.

1. Physical Development

By the end of kindergarten children will

Elaboration - Suggestions for Learning and Teaching

Children's eyes direct the movement of their feet when they run, jump, kick a ball, or step over an obstacle. Their eyes work with the body to perform such tasks as getting dressed, cutting out a figure, or packing a lunchbox. It is through practice that skills in eye-motor coordination develop to the point that the child is not concentrating on the motor skills; the skill is habitual, and concentration can be directed to new skills.

1.1 develop control of large muscles

1.1 Provide daily opportunities for children to participate in developmentally appropriate gross motor activities:

- running
- jumping
- climbing
- balancing
- throwing/catching different size balls
- hopscotch
- musical games (musical chairs, freeze dance, Hokey Pokey).

Divide children into different stations. Have children throw/catch objects of different weights and shapes such as bean bags, small balls, basketballs, etc.

1.2 develop control of small muscles

1.2 Provide daily opportunities for children to explore a variety of learning centres using developmentally appropriate activities that support fine motor development:

- small building blocks
- playdough
- salt trays
- stringing beads
- painting with paint brushes
- cutting with scissors
- using a keyboard
- zippering (dramatic play)
- a computer mouse
- writing with a crayon or pencil
- puzzles
- using tongs to pick up small objects (cotton balls).

1.1/1.2 Invite children to create a maze using different resources such as blocks, ropes, boxes, geo blocks, etc. After moving through the maze, they could represent the maze on paper. This activity could also be repeated in the opposite way: Have the children represent the "map" on paper and then use the "map" to build the maze (SS 3.1).

1. Physical Development

Worthwhile Tasks for Assessment and Instruction

1.1 Observe and note children's participation during gross motor activities. A great way to show children's growth and development in gross motor activities is to take pictures for their portfolio.

1.2 Observe and note children's ability to manipulate objects:

- pencil grip
- cutting
- eye-hand coordination.

Children's projects can be date-stamped and added to their portfolio to show their fine motor growth and development. An example of this would be having children sign in on a regular basis, and adding this to their portfolio 3-4 times throughout the year.

Suggested Resources

Fun First Binder - Active Living Alliance

1. Physical Development

By the end of kindergarten children will

1.3 develop spatial sense, including position-in-space, and the language associated with it

Elaboration - Suggestions for Learning and Teaching

1.3 Position-in-space perception is the ability to determine the relationship of one object to another and to the observer. Because children perceive themselves to be spatially the centre of the universe, they naturally perceive objects in relation to themselves. Objects are above, below, beside, in front of, and behind them. Children who have difficulty with position-in-space perception are likely to experience reversal in reading and writing, and struggle with mathematics as well.

Language required to describe positions in space must be developed. Encourage the use of spatial language in connection with daily routines (EL 1.4). Provide children with opportunities to follow, and to give, directions using spatial language such as “below,” “between,” “above,” “beside,” “behind,” “through,” “to the right,” and “to the left.” While these opportunities need to be provided, not all children will be readily able to differentiate between “right” and “left” at this age.

Ask pairs of children to work together designing a “neighborhood” in the sand box or with building blocks. Have them select children to tour the neighborhood following directions that they provide. Encourage them to use spatial language (SS3.1).

Play the game Mystery Object: say things like - The object I’m thinking of is “on” the table, “below” the shelf, and “next” to the book. Have the children play this in pairs.

1. Physical Development

Worthwhile Tasks for Assessment and Instruction

1.3 Set up an obstacle course and have children follow directions provided by the educator or other children (H&PD 1.1). Include a variety of appropriate spatial language.

Observe and note

- children's use of spatial language as they give directions.
- children's understanding of spatial language as they follow directions.

Suggested Resources

2. Health and Well-Being

By the end of kindergarten children will

2.1 explore and recognize the benefits of healthy food choices

Elaboration - Suggestions for Learning and Teaching

2.1 Discuss the importance of healthy food choices. Record children's responses in a modelled writing activity.

Introduce *Canada's Food Guide to Healthy Eating* and discuss healthy/unhealthy food choices.

Create a class collage of healthy food choices using pictures from magazines or catalogues. Foods may be classified as "everyday foods" and "sometime foods."

Add healthy food props (recycled containers, plastic foods) to dramatic play. Set up a store or restaurant.

The big book selection *Friendship Salad* could also be linked to healthy food choices - *Discovery Links Teacher's Guide*, p. 81.

Visit a grocery store or invite a dietician to speak with the children about healthy food choices.

2.2 practice and discuss positive hygiene and health care habits

2.2 Practices such as not sharing personal items (e.g., cups, straws, helmets/hats, brushes, and combs), carefully washing hands after blowing the nose, and covering the mouth when coughing or sneezing should be emphasized when working with this outcome.

Discuss with children the importance of washing their hands. Brainstorm with children, and record their responses on chart paper about when we need to wash our hands.

A good way to get children washing their hands for the appropriate amount of time is to have them sing "*Happy Birthday*" twice.

To help children understand the concept of germs on their hands, put their wet fingers in a pie plate containing sparkles. Have them touch various objects and note how the sparkles stick. Explain that this is how germs spread and, therefore, it is important to wash our hands to cut down on the spread of germs.

Invite children to participate in a shared writing activity in which they give examples of practicing good health care habits. Some examples may be washing hands, brushing teeth, getting the right amount of sleep, exercise, etc.

Invite a public health nurse and/or dental hygienist to come and discuss healthy habits.

2. Health and Well-Being

Worthwhile Tasks for Assessment and Instruction

2.1 Observe children's participation when discussing healthy lifestyles.

During a modelled writing lesson, ask children to share activities that promote a healthy lifestyle and explain why they are healthy choices.

Have children sort pictures of foods into "everyday" foods and "sometime" foods, explaining their choices.

Provide children with a variety of food and a paper plate and ask them to choose something from each of the four food groups.

After visiting the grocery store to discover foods from the four food groups or having a dietician speak with the children, do a shared writing activity to discover what the children learned.

2.2 Observe children at snack and lunchtime to see if they remember to wash their hands properly.

Have children do a follow-up response to what they learned from the public health nurse or dental hygienist. Date-stamp and add to their portfolio.

Have children draw/write about an activity that promotes positive hygiene (washing hands, covering mouth when coughing, etc.).

Suggested Resources

Discovery Links - Friendship Salad
BB selection

Health & Safety - BB

2. Health and Well-Being

By the end of kindergarten children will

2.3 participate in and explore the benefits of physical activity

Elaboration - Suggestions for Learning and Teaching

2.3 Read a book that involves physical activity or the poem “Playtime” from the *Health and Safety* big book. Record children’s responses to the question *What does it mean to be physically active?*

Provide opportunities for children to be physically active. Ex. dancing to music, going for walks, relay races, etc.

Brainstorm with children different types of physical activity. Ex. walking, skating, sledding, swimming, riding a bike, playing hockey, etc.

Create a class book of the children’s favourite physical activity by having the children draw and write about their picture. (EL 4.3)

Discuss the reasons why physical activity is important, such as it helps us to

- feel more energetic and alert
- feel happy and calm
- grow strong
- move easier
- stand tall (posture)
- prevent future illnesses.

Educators provide opportunities for children to participate in regular physical activity. Some suggestions are

- going for walks
- dancing/movement (CD 1.1)
- relay races
- movement games (Simon Says, Duck Duck Goose, parachutes).

2. Health and Well-Being

Worthwhile Tasks for Assessment and Instruction

2.3 Have the children draw a picture of what it means to be physically active (CD 1.1). Have the children date-stamp and add to portfolio (H&PD 3.3).

Observe and note children's responses when discussing what it means to be physically active.

Observe and note children's participation in physical activity. Do they participate voluntarily?
Is their participation active or passive?

Suggested Resources

Health & Safety - BB

2. Health and Well-Being

By the end of kindergarten children will

2.4 recognize and discuss safe and unsafe situations

2.5 apply basic safety rules

Elaboration - Suggestions for Learning and Teaching

2.4/2.5 Introduce rules by reading the big book selection *We Have Rules* (*Discovery Links*, p. 24).

Discuss with children how to stay safe in different situations:

- playground
- kindergarten
- home
- crossing the road
- swimming
- driving a bike
- seat belt safety
- sun safety (sunscreen, hat, etc.)
- when using the internet.

Through modelled writing, record safety rules to keep us safe in different situations.

Visit the fire station or invite a firefighter to visit the kindergarten.

After reading the big book *Quack 9-1-1*, brainstorm with children when you use 911. Discuss the difference between an emergency and a non-emergency.

Add phones to dramatic play for children to act out calling 911 for emergencies.

Invite a police officer to talk to the children about when to call 911.

It is important to help children remember their full name, civic address, telephone number, and parents' name.

Discuss with children how the five senses help to keep us safe: we can hear the fire alarm, we can look for traffic before we cross the street, etc. (SS 1.1)

2. Health and Well-Being

Worthwhile Tasks for Assessment and Instruction

2.3/2.4 Observe and note children's participation during a discussion about rules. Some examples would be

- Ask children to illustrate what might happen on the playground if there were no rules. Invite children to explain their illustration.
- During a fire drill, observe and note children's understanding of the procedures.

Suggested Resources

Discovery Links, p. 24

We Have Rules - BB selection

9-1-1 Quack

Health & Safety - BB

Bicycle Helmet Safety Kit - ECDA

911 Kit

Play Fair Kids

3. Personal Development

By the end of kindergarten children will

3.1 understand that feelings and emotions are expressed in words, actions, and facial/body expressions

3.2 demonstrate curiosity and interest in learning

Elaboration - Suggestions for Learning and Teaching

3.1 Discuss stories read aloud to children in terms of characters and their feelings. Ex. After reading *Mrs. Wish Washy*, you might consider asking the children the following questions: How do you think Mrs. Wish Washy felt when she saw the animals covered in mud? How do you think the animals felt when they had to take a bath? (EL 1.9 & 3.1).

Involve children in role-playing situations that illustrate basic feelings.

Do a mind map with children, asking them to provide different feelings. Have the children make facial expressions to show different feelings.

3.2 Brainstorm with children something new they are learning to do in kindergarten. Ex. Come into kindergarten without Mommy or Daddy (*be sensitive to family structures*), tie their own shoes, write their name, read, etc. Record their responses on chart paper or a white board (modelled writing).

Brainstorm a list of things children would like to learn in kindergarten. Record the ideas and post in the kindergarten. Use the ideas for planning projects and special activities and choosing books to read throughout the year.

3. Personal Development

Worthwhile Tasks for Assessment and Instruction

3.1 Note children's responses when brainstorming emotions and displaying facial expressions.

Show children a variety of pictures of different emotions/feelings.

Observe and note children's interactions with others:

- choice of words
- tone of voice
- facial expression
- how they react to different situations
- are they in control of their feelings?
- how do they express their emotions?

3.2 Observe and note children's curiosity and interest in learning as they participate in new learning situations throughout the kindergarten year. Do they approach new situations with eagerness and excitement or are they apprehensive?

Do they stay engaged for extended periods of time in topics/areas of interest?

Have the children draw and write about one new thing they have learned in kindergarten. Date-stamp and add to portfolio.

Use a K-W-L chart to record children's learning.

Instead of a New Year's Resolution, ask children one thing they would like to learn in the New Year. Record their responses and post to refer to later.

Suggested Resources

3. Personal Development

By the end of kindergarten children will

3.3 engage in and complete activities independently; and seek assistance as necessary

Elaboration - Suggestions for Learning and Teaching

3.3 Read a story about learning to be independent, such as *All By Myself* by Mercer Mayer. Discuss how the characters in the story might feel when they are able to do things on their own (H&PD 3.1).

Brainstorm examples of tasks that children can do by themselves, but were unable to do when they started kindergarten. Ex. choosing centres, finding their locker/hook, writing their name, zipping their jacket. Record on chart paper/white board. Extension: have the children draw/write about something they can do independently.

Discuss feelings you have when you learn how to do new things (H&PD 3.1).

Use the tune of “Three Blind Mice” to sing a song about tasks that children can do by themselves. For example:

Look what I can do,

Look what I can do,

All by myself,

All by myself,

I can count from one to ten,

I can zip my zipper up,

I can write my name by myself,

Look what I can do,

All by myself.

This could also be written on chart paper and used for shared reading.

Discuss with children what to do when they want to learn to do something. Encourage children to first try it on their own and then ask for help. Brainstorm with children how they have received help in the past.

Create a list of polite ways to ask for help. Remind children to use a polite and friendly voice when asking for help. Ex.

May I...?

Is it ok...?

Could I please...?

3. Personal Development

Worthwhile Tasks for Assessment and Instruction

3.3 Observe and note how children demonstrate independence in daily activities.

Do they complete tasks started independently or do they look for the educator to help them frequently?

Do they attempt to solve problems on their own? Ex. Who still asks where the compost goes?

Have children think about their day in kindergarten and about the things they can do by themselves. Educators may consider using one of the following statements:

- “Today I worked on...”
- “Today I finished...”
- “Today I learned how to...”

Do a class or individual book. Have children illustrate and draw what they can do by themselves. Stem sentence could be I can...

Have a day of celebration for all the new things children have learned in kindergarten.

Observe and note when children may need to ask for help. Do they try to problem-solve on their own before asking for help?

Do they ask a friend before asking an adult?

Suggested Resources

Creative Development

Creative Development

Creative development is an essential part of a child's development. In addition to pleasure and satisfaction, creative development is a way for children to respond to and interpret their real and imagined world; a vehicle through which children may express curiosity, feelings, and understandings; and a context in which children may discover and appreciate aspects of their cultural heritage and that of others.

Through movement, drama, music, art, and play, we share with one another our creativity and individuality. As young children explore and experience the world around them, they learn to respond thoughtfully and sensitively to their environment. They develop personal creativity through which they enrich, deepen, and extend their thinking, language, learning, and communication.

In the Prince Edward Island Kindergarten Integrated Curriculum, creative development is more than a subject area, it is an important tool that children can use across the curriculum. Providing children with opportunities to express themselves creatively supports their growing understanding in all areas of learning. Activities should be integrated not only to support learning expectations in other areas, but also to accept and support the diverse learning styles, interests, uniqueness, and abilities of individual children. Exposure to and involvement in a variety of creative activities will provide young children with the foundation for lifelong interest in, and an appreciation of, the arts.

1. Creative Development

By the end of kindergarten children will

1.1 express ideas and feelings creatively through music and movement

Elaboration - Suggestions for Learning and Teaching

1.1 Music in a kindergarten program promotes appreciation and enjoyment of music in all its forms.

Music activities for kindergarten children may include

- opportunities throughout the daily program for singing.
- opportunities for children to listen to a variety of music (classical, traditional, instrumental, cultural, modern, local artists, etc.) to encourage awareness and appreciation of music.
- responding to music through a variety of mediums:
 - painting
 - dancing/moving - children could use wind kites, streamers, scarves, ribbons, etc. Children could also be encouraged to move fast, slow, like an animal, etc.
 - musical instruments - bought (rhythm sticks, triangle, etc.) or made (shakers, drums, etc.).

Invite family members or others who can play musical instruments to share their music and music that reflects different cultures.

1. Creative Development

Worthwhile Tasks for Assessment and Instruction

1.1 Observe and note

- children's involvement when participating in music and movement activities.
- can they hear the beat or rhythm in music and clap/snap/tap to the music?
- children expressing themselves creatively in play.

Take pictures of children dancing, moving, playing in dramatic play, acting out stories, doing puppet plays, etc. for their portfolio.

Suggested Resources

Joyful Learning in Kindergarten, p. 107

Warming Up to Big Books

1. Creative Development

By the end of kindergarten children will

1.2 express ideas and feelings creatively through artistic expression

Elaboration - Suggestions for Learning and Teaching

1.2 Art, is the *process* of visual expression and creation. It can result in a drawing, a painting, a print, or three-dimensional products, such as sculptures and collages. It is important that children be allowed freedom to express themselves through art every day. The following are some suggestions:

Provide opportunities for children to explore freely in a well-stocked art centre including recycled and natural material.

- **tools** - variety of paint brushes, sponges, scissors, markers, crayons, stamps, stencils, etc.
- **materials** - papers of different sizes, textures, and colours, magazines, catalogues, natural and recycled materials, etc.
- **processes** - finger painting, tearing, crumpling, glueing, cutting, mixing, etc.

Have children respond to literature through paintings, play dough creations, drawings, preparing props for role-playing, etc.

Allow children the opportunity to explore and discuss different elements of design - colour, line, shape, texture and form. Ex. child talk: *"I used a wiggly line."* *"I made a rubbing of my leaf."* *"I cut a zigzag line"* *"I made different shapes with play dough."* *"I glued seeds to my picture to make it bumpy."* *"I used leaves, twigs, and torn paper to make my picture."* *"We used blocks and boxes to make a sculpture like the one in the book."* *"I made a print with my sponge."*

Talk about, and point out techniques used by an illustrator in a picture book (ex. photographs, plasticine art, drawings, paintings, black and white pictures, collage, etc.).

Invite local artists or visit an art gallery to expose children to a variety of art work.

Provide opportunities for children to represent their creations. Ex. Draw their block creation as a record to do the same block structure the next day (SS 3.1), self-portraits (SS 1.1). See also Investigations: *Counting Ourselves and Others* - Choice Time, p. 25), reproduce pattern block creations with paper patterns.

Display children's creations.

1. Creative Development

Worthwhile Tasks for Assessment and Instruction

Observe and note children's engagement in the art process: Do they visit the art centre? Do they talk about and share with others their creations?

- Do children use their own ideas when creating? Do they follow the lead of a friend?
- Do they use old materials in new ways?
- Do they explore with different materials?

Observe and note if children draw closed figures. Do they draw a person with a body and not with legs and arms coming from their head?

As it is difficult to add children's 3-D creations (plasticine, blocks, box creations, etc.) to their portfolio, take pictures to add to it.

Suggested Resources

Joyful Learning in Kindergarten, p. 107

Warming Up to Big Books

1. Creative Development

By the end of kindergarten children will

1.3 represent and express ideas and feelings creatively through play

Elaboration - Suggestions for Learning and Teaching

1.3 While some children may engage in art or music activities, others will express themselves creatively through a variety of play activities. These include, but are not limited to, dramatic play, sand/water, blocks, puppets, and acting out stories.

The development of self-concept and self-esteem plays an important role in learning to recognize and accept others and their differences. Educators can support this by adding props and accessories that represent ethnic, gender, social, and cultural diversity to various learning centres. Ex. blocks/boxes to build different kinds of houses, dress-up clothes, food representing different cultures, etc.

To foster children's creativity, educators regularly change materials in learning centres. For example, snow/ice can be added to the water table, a variety of boxes can be added to the block centre, props can be added to the reading centre, etc.

1. Creative Development

Worthwhile Tasks for Assessment and Instruction

1.3 Observe and note children expressing themselves creatively in play.

Observe and note how children use materials and resources creatively in play.

Take pictures of children playing in dramatic play, acting out stories, doing puppet plays, etc. for their portfolio.

Suggested Resources

Joyful Learning in Kindergarten

Assessment and Evaluation

Assessment & Evaluation

Of all the many challenging functions performed by the kindergarten educator, probably none require more energy and skill than assessment and evaluation. Both are continuous, comprehensive, and integral to the teaching-learning process in a developmentally appropriate program. Assessment and evaluation of children's development and learning are essential if educators are to provide programming that is both age-appropriate and individualized.

Assessment is the process of gathering data on what children can do and how they do it. Evaluation is the process of interpreting that assessment data and making judgements and decisions based on it. Educators use this information to support their understanding of each child's uniqueness and how they learn. Assessment and evaluation also support educators in their planning of developmentally appropriate activities that meet the needs of individual children.

Observation

Observation is the most important aspect of assessment in the kindergarten program and is an integral part of all assessment and evaluation. Observation is the collecting and recording of information from what is seen, heard, and told. Over time, educators will make systematic observations to capture an accurate picture of the development of the whole child. Through careful observation, the educator can find out a child's interests, strengths, learning needs, and styles. Many of these observations are done in an informal way as educators and children play, work, and interact in kindergarten. However, although many observations will be informal, it is important for educators to plan observations on individual children on a regular basis. A reasonable goal is to record at least one observation of each child each week.

There are various ways of documenting observations such as

- anecdotal notes
- checklists
- rating scales.

The information gathered through observations can be used to

- plan developmentally appropriate programming
- describe the child's growth and development
- provide information and feedback to children, staff, families, and other professionals
- promote lifelong learning.

"Assessment begins with what children know; the evidence for what they know is in what they can do."

Fountas & Pinnell, 1996

Communicating with Parents/Guardians

The kindergarten educator recognizes that the parents are the child's first educator and invites them to be partners in the teaching/learning process. Open communication with the parents/guardian is essential throughout the year. Educators share information with parents/guardians through the provincial Kindergarten Progress Report, parent-educator conferences, and supporting portfolios.

Progress Reports

Kindergarten educators use the provincial Kindergarten Progress Report two to three times a year to provide parents with information about their child's growth and development. In order to reflect the growth and development of the whole child, the progress report is broken into the following developmental areas:

- social/emotional, physical
- creative
- intellectual
- early numeracy
- early literacy and language.

Educators will share this information through parent/educator conferences.

Parent-Educator Conference

Parent-educator conferences provide both the educator and the family with information about their child. During these sessions, the educator shares the information collected from on-going observation, conferences, conversations, checklists, and work samples. The educator will emphasize the child's progress and strengths, as well as areas and concepts where the child may need support. It is necessary that educators discuss strategies and plans that will be put into place to support the child's needs. On-going documentation provides educators with the necessary information to facilitate this sharing session.

Portfolios

The portfolio is an authentic record of assessment and evaluation that shows children's growth and learning. It is a method of organizing and storing data for each child. It is a purposeful collection that provides a continuous record of the child's progress, compiled over an extended period of time. Children must be an active participant in determining what best demonstrates their growth and abilities.

“Planning appropriate instruction, both immediate and long range, becomes easier when assessment is an integral part of the curriculum.”

Bobbi Fisher, 1998

The portfolio can include

- a child’s art projects
- self-portrait
- work samples such as samples of their writing, representations, drawings, etc.
- record of books read by the child
- observations
- conference notes
- checklists
- photographs
- learning stories
- other information that is relevant for decision making.

Effective use of portfolios can be facilitated by

- dating and organizing all items in a chronological order
- organizing by categories (ex. based on the areas seen on the progress report)
- collecting a variety of work samples
- adding comments when appropriate
- looking for patterns of growth from the collected samples
- the child’s active involvement in the collection process

The portfolio is a comprehensive picture of the child’s development over time. It states where the child is, making it a non-threatening way to assess children’s learning. This allows the educator and families/guardians to focus on what children can do rather than on what they can’t.

Developmentally appropriate assessment is one that is embedded in day to day teaching strategies. It should be used to inform teaching and to plan developmentally appropriate activities designed to move children forward. Educators should recognize that all children will enter kindergarten with diverse backgrounds and a variety of experiences that will have influenced their growth and development. The *Kindergarten Integrated Curriculum Document* provides a wide variety of teaching/assessment strategies that will support educators in meeting the needs of all children.

Appendices

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Literature-Based Integration

The following are some suggested activities to support curriculum integration using *Going to the Park with Grandpa* by Mairi Cowan. These are suggestions only that educators may use if they wish.

Activity	Outcomes
Introduce the book <i>Going to the Park with Grandpa</i> by asking the children if they have ever been to the park. Read and discuss the book. Model for children asking questions of text and provide time for children to ask questions.	EL 1.1 Express feelings and opinions and describe personal experiences and interests. EL 1.2 Listen to the ideas and opinions of others. EL 3.1 Regard reading/viewing as sources of interest, enjoyment, and information. E.L 3.12 Begin to ask questions of text.
Discuss with children how the book was illustrated (paintings, drawings, photos, etc.).	EL 1.5 Participate in conversation and in small-and whole-group discussion. EL 3.13 Recognize some basic components of text such as author, illustrator, and title. CD 1.1 Express ideas and feelings creatively through artistic expression.
After reading <i>Going to the Park with Grandpa</i> , go for a walk to a park or outdoor environment. Have the children describe what they have seen, smelled, heard, or touched using the five senses vocabulary. Record their responses.	EL 1.1 Express feelings and opinions and describe personal experience and interests. EL 1.2 Listen to the ideas and opinions of others. EL 1.5 Participate in conversation and in small-and whole-group discussion. EL 1.8 Demonstrate that they are becoming aware of social conventions in group work and cooperative play. EL 4.1 Understand that print carries a message. EL 4.2 Begin to develop an awareness of audience and purpose. EL 4.5 Develop the concept of directionality. S 1.1 Become aware of the five senses. S 1.2 Develop and use vocabulary associated with the five senses. H&PD 1.1 Develop control of large muscles.
Before going to the park or outdoor environment, discuss and record safety rules for outside play. These will change depending on the time of year. For example, a safety rule for playing outside in the summer might be wear sunscreen and a hat. In the winter, it might be to walk carefully when it is slippery.	EL 1.1 Express feelings and opinions and describe personal experiences and interests. EL 1.2 Listen to the ideas and opinions of others. EL 1.5 Participate in conversation and in small and whole-group discussion. EL 4.1 Understand that print carries a message. EL 4.2 Begin to develop an awareness of audience and purpose. H&PD 2.3 Recognize and discuss safe and unsafe situations. H& PD 2.5 Apply basic safety rules.

Activity	Outcomes
<p>While on the way to the park or green space, have the children go on a 2-D and 3-D shape hunt. Do they see different shapes depending on the time of year?</p> <p>While at the park or outdoor environment, have the children collect natural objects to add to the math or science centre for sorting, counting, and further exploration and observation.</p> <p>Have the children draw/write about what they have seen, touched, smelled, or heard while at the park or through observation of material brought back to the kindergarten.</p>	<p>EL 3.10 Respond personally to text in a variety of ways to demonstrate comprehension.</p> <p>EL 4.1 Understand that print carries a message.</p> <p>EL 4.3 Write simple messages.</p> <p>EL 4.7 Understand that letters can be written in upper and lower case (uses them indiscriminately).</p> <p>EN 1.3 Count to determine the number in a group.</p> <p>EN 3.1 Compare two objects based on a single attribute, such as length (height), mass (weight), and volume (capacity).</p> <p>EN 4.1 Sort 3-D objects using a single attribute.</p> <p>EN 4.2 Build and describe 3-D objects.</p> <p>S 1.1 Become aware of the five senses.</p> <p>S 1.2 Develop and use vocabulary associated with the five senses.</p>
<p>Discuss with the children the need to wear appropriate clothing depending on the weather and time of year. Introduce children to the sequence of seasons. Create a class book having each child illustrate a page and finish a stem sentence. For example:</p> <p>When it is rainy, I wear ____.</p> <p>When it is sunny, I wear ____.</p> <p>When it is snowy, I wear ____.</p> <p>This book could then be added to the reading corner to be read by children. Provide material for children to create their own book about seasons, weather, etc. Add clothing/props (umbrella, boots, mitts, etc.) to dramatic play for children to explore different clothing for different weather.</p>	<p>EL 1.2 Listen to the ideas and opinions of others.</p> <p>EL 1.5 Participate in conversation and in small-and whole-group discussion.</p> <p>EL 1.7 Engage in simple oral presentations and respond to oral presentations.</p> <p>EL 3.10 Respond personally to text in a variety of ways to demonstrate comprehension.</p> <p>EL 4.1 Understand that print carries a message.</p> <p>EL 4.3 Write simple messages.</p> <p>EL 4.7 Understand that letters can be written in upper and lower case (uses them indiscriminately).</p> <p>EL 4.8 Use letters to represent the predominant sounds in words.</p> <p>SS 1.2 Begin to develop an awareness of needs and wants that are common to all children.</p> <p>SS 1.3 Demonstrate that cooperation is an important part of being a member of a group.</p> <p>CD 1.2 Express ideas and feelings creatively through artistic expression.</p>

Activity	Outcomes
<p>On large paper, create a map of how to get to the park or green space. While discussing the map, use language such as <i>the garbage can is beside the swing, the sand box is under the tree</i>.</p> <p>Have the children work in small groups to create their own map of the park. Use the map to re-create the park using blocks. Ex. Cone may represent a tree.</p> <p>Note: <i>This activity may be better suited for later in the year when children have had more experience with mapping.</i></p>	<p>EL 1.4 Follow and give directions in different contexts.</p> <p>EL 1.8 Demonstrate that they are becoming aware of social conventions in group work and cooperative play.</p> <p>H&PD 1.3 Develop spatial sense, including position in space, and the language associated with it.</p> <p>SS 1.3 Demonstrate that cooperation is an important part of being a member of a group.</p> <p>SS 3.3 Begin to develop an awareness of maps.</p> <p>H&PD 1.2 Develop control of small muscles.</p>

Note: *In many cases, there may be more outcomes met depending on what other activities are done or the developmental level of each child.*

Project Approach

“As a way of learning, the project approach emphasizes children’s active participation in the planning, development, and assessment of their own work; children are encouraged to take initiative and responsibility for the work that is undertaken.”

Katz & Chard, c. 2000.

The term project refers to an in-depth investigation of a particular topic. Through collaboration, children and educators find answers to questions that have been identified through the investigation process. The project consists of children exploring and investigating a topic of interest which is usually identified from what is familiar in the world around them. For example, on Prince Edward Island, children might explore a project on tractors, fishing boats, lighthouses, windows, etc. Projects that Prince Edward Island children wouldn’t explore might include volcanoes, trains, mountains, etc. because sight visits are a vital part of the project approach.

The project approach consists of the following three phases:

Phase 1: Planning and Getting Started

- discussions to select and refine the topic to be investigated
- explore and represent children’s knowledge and experiences (K-W-L chart, mind map, etc.)
- develop questions for the investigation
- educator identifies curriculum links, available resources, field sites
- inform parents about the project and invite them to share their knowledge and experiences

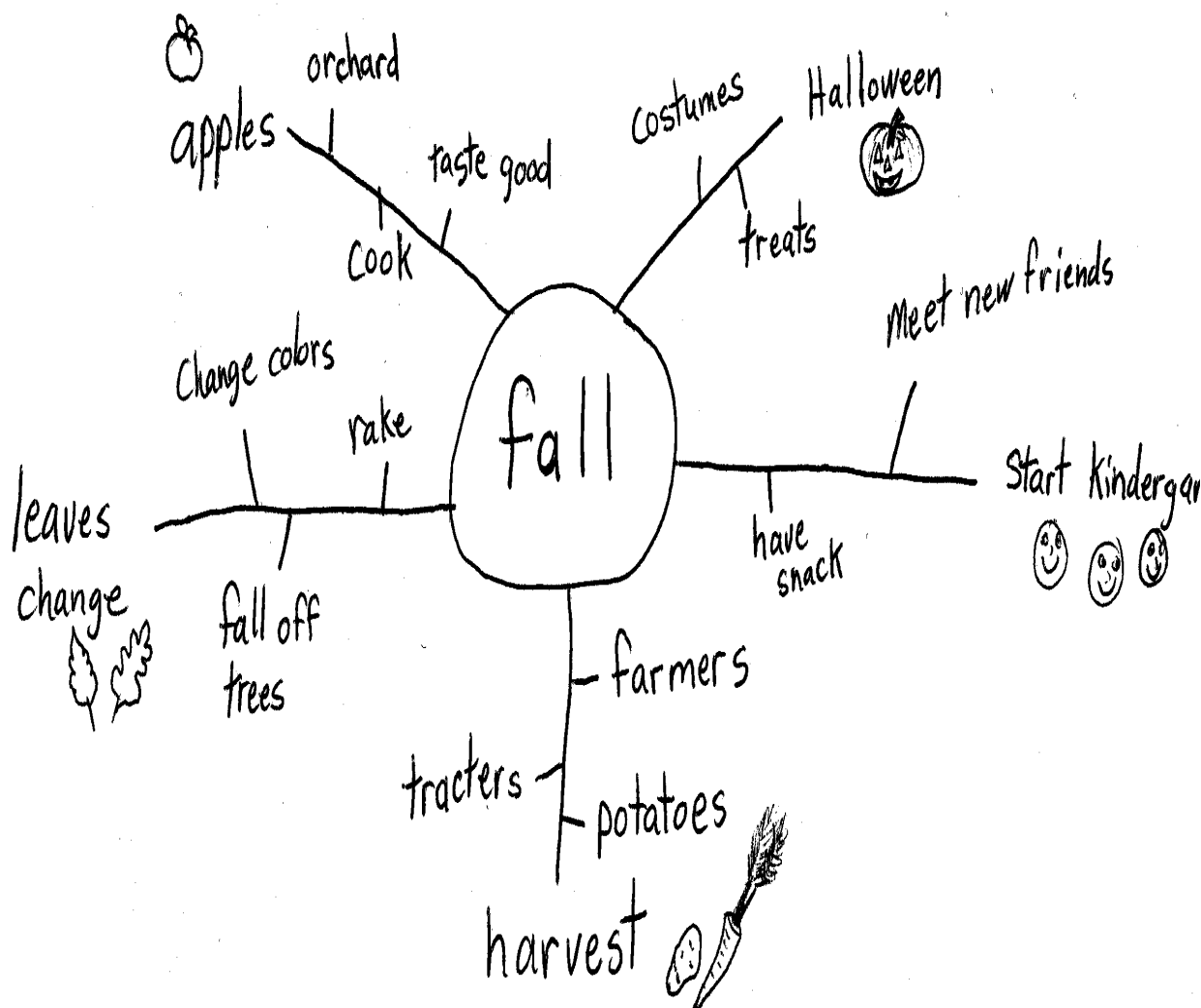
Phase 2: Developing the Project

- the “heart” of project work!
- the children are visiting field sites, drawing, constructing, observing, recording, exploring, interviewing experts and representing their learning

Phase 3: Concluding the Project

- children share with others what they have learned
- displays of findings, artefacts, constructions, dramatic presentations, guided tours, etc.
- features the highlights

Sample Mind Map



Sample K-W-L Chart

What I Know	What I Want to Know	What I Learned
Apples are red. Apples are round. They taste good. They're good for you.	Where do they come from? How do they grow? Can they be yellow? Why are they red?	Apples grow on trees. Apples grow from seeds planted in the ground. Apples can be yellow and green. Apples are good for you.

Six-Step Planning Model

Learning outcomes serve as the foundation for curriculum integration. The following six-step process, along with the educator's familiarity with specific curriculum outcomes, will guide them through the development of an integrated unit.

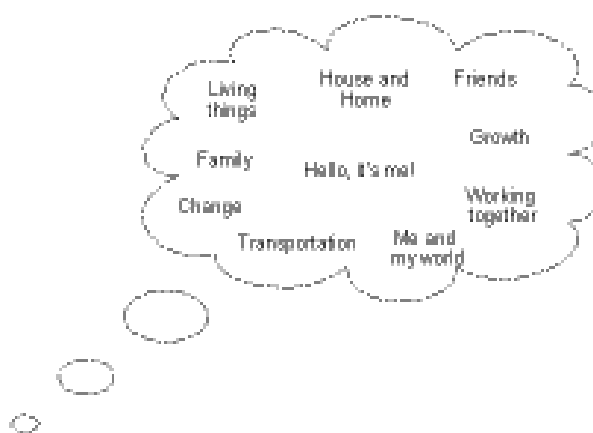
1. Choose a unifying idea
2. Brainstorm meaningful connections
3. Identify curriculum outcomes
4. Formulate essential questions
5. Choose and/or design learning experiences
6. Decide on assessment strategies

Step 1: Choose a Unifying Idea

Right at the beginning of the planning stage, educators need to brainstorm many possibilities for a unifying idea. The ideas that reflect curriculum priorities will begin to make sense as educators familiarize themselves with the curriculum outcomes they need to address. The unifying idea often has science, health, or social studies focus. Thoughtful consideration of the unifying idea increases the likelihood of meaningful connections among language arts, math, and other areas. The unit chosen will be more successful if educators chose an idea that interests them and they feel will excite the children. Educators might ask some of the following key questions when developing a unifying idea:

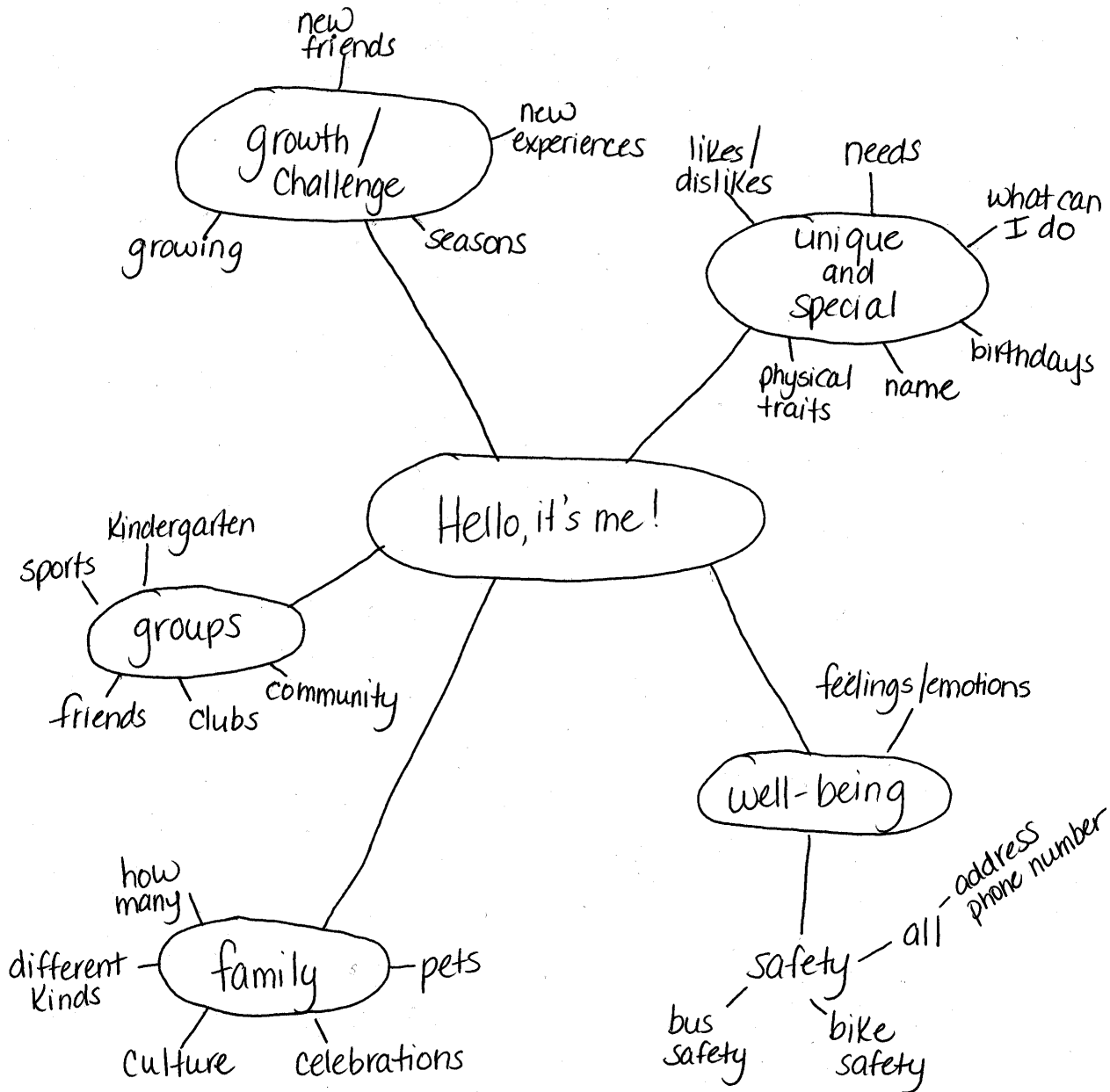
- Is the unifying idea broad enough to sustain an ongoing investigation over a period of time?
- Is it developmentally appropriate?
- Will it spark interest in the children?
- Will it lead to connections among various curricular areas?

The unifying idea chosen for this unit was “**Hello, it’s me!**” It is also the unit’s title.



Step 2: Brainstorm Meaningful Connections

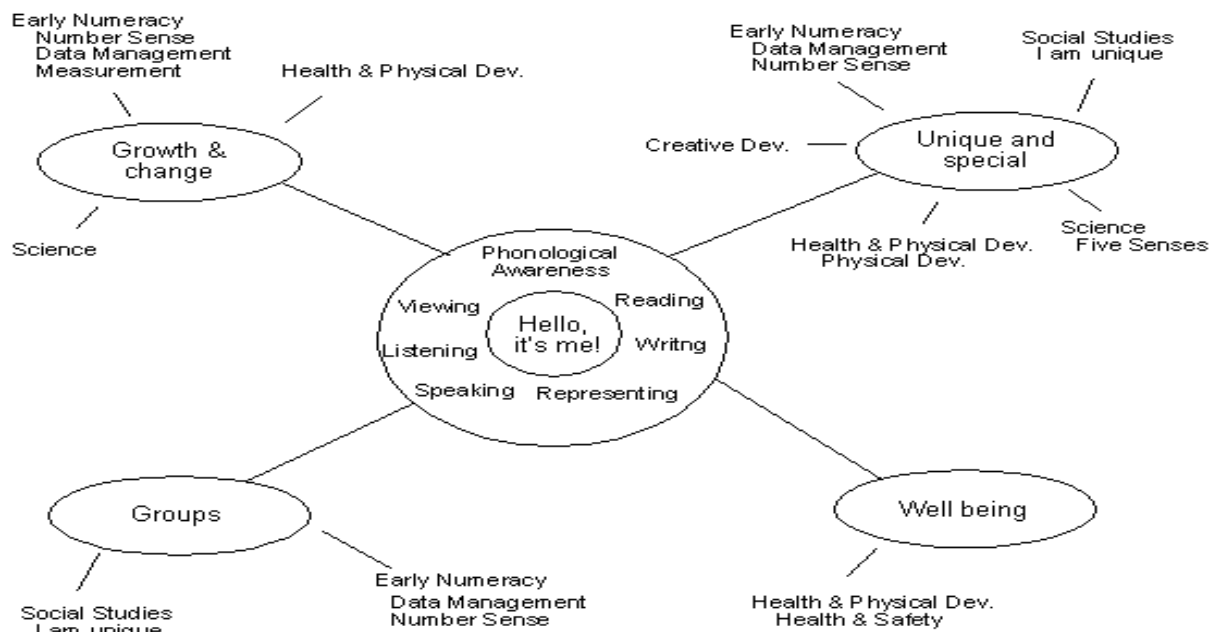
This step enables the educator to explore the unifying idea by identifying a broad range of connections to it. Educators might complete this step by printing the unifying idea in the centre of a blank page and creating a web. Although a focus on subject areas at this point is not recommended, as it tends to limit the brainstorming, all possible links are accepted and recorded. Specific connections to curriculum outcomes follow in Step 3.



Step 3: Identifying Curriculum Outcomes

Once possible connections have been identified through brainstorming, a review of curriculum outcomes highlights the strong connections that will develop the unifying idea while addressing one or more outcomes. This review process also eliminates those connections that do not address curriculum outcomes.

At this stage, the curriculum documents become the educator's primary tool. The educator identifies the outcomes that relate to the unifying idea and pares them down to a workable number, keeping only those with the strongest links. The more familiar educators are with the curriculum outcomes, the easier planning of the integrated curriculum unit becomes. The outcomes that can be addressed in meaningful ways surface, and a direction for the unit emerges. This step leads nicely into formulating essential questions.



It is only through close examination of curriculum documents that it becomes clear which outcomes fit well with the unifying idea of "Hello, it's me." Please note: within the context of this example, family was abandoned as the concept will be explored in more detail later in the kindergarten year.

Step 4: Formulate Essential Questions

Using the chosen outcomes, educators need to develop three to five essential/key questions to establish the focus of the unit.

These questions should

- be based on the chosen curriculum outcomes
- invite deep and broad enquiry
- be different from each other
- be answerable in the time allotted to the unit
- have a logical sequence and natural flow.

Formulating essential questions can be the most challenging step in the integrated curriculum planning process. Therefore, educators may find it helpful to use a combination of who, what, where, why, and how words to begin the questions.

Question 1: What makes me special?

This question connects to children's knowledge of themselves. Children will explore physical traits, name, what can I do, etc.

Question 2: What do I need?

New experiences, friends, growing seasons

Question 3: How do I belong?

Family, groups, etc.

Step 5: Chose and/or Design Learning Experiences

A single learning experience may provide opportunities for educators to address outcomes from more than one subject area. Educators may choose learning experiences in a variety of ways. They may select from the instructional strategies and learning experiences provided in curriculum guides or in other resources at their disposition, or adapt activities that they have done in the past in order to have them fit in the unit.

Educators may also decide to develop learning experiences tailored to specific outcomes. Reflecting on previous brainstorming activities and drawing on children's knowledge help educators develop engaging experiences that tightly weave the outcomes from different areas. Learning experiences, whether chosen or designed, should address children's strengths and needs, taking into consideration multiple intelligences and learning styles. The unit should promote opportunities to work in a whole group, in small groups, and independently.

Key Question 1: What makes me special?

Outcomes	Learning Experiences	Assessment Strategies	Resources
CD 1.2 H&PD 1.2 EL 1.5, 1.7, 1.8 SS 1.1 EN 1.2, 1.3, 1.6	Show jewelry box with mirror. “I am going to show you something unique and special.” Child sees self inside mirror inside box. <ul style="list-style-type: none"> • Have children represent themselves by using paints, clay, writing tools, etc. • Have children present creations to the group. • Compare the number of boys and girls. Are there more boys or girls? 		
EL 2.3, 3.1 EN 1.3, 1.6 SS 1.1	Read a story such as <i>Chrysanthemum</i> by Kevin Henkes. <ul style="list-style-type: none"> • Using cube-a-links, have the children make “name towers” - children can use the towers to measure/find items that are longer than/shorter than. • Children count the letters in their name. • Have the children break their name towers into the number of syllables in their name. 		
EL 3.1, 3.2, 3.8, 3.9 4.1, 4.3, 4.7, 4.8, 4.9 SS 1.1 CD 1.1	Present the song “I am Special” on chart paper and sing it together. Introduce sight word “I”. <ul style="list-style-type: none"> • Have children finish the stem sentence “I am special”. I have _____ (ex. brown eyes, blue eyes, etc., focus on one attribute). 		

Key Question 2: What do I need?

Outcomes	Learning Experiences	Assessment Strategies	Resources
EL 1.1, 1.2, 1.3, 1.5, 1.8, 3.1, 3.2, 3.10, 4.1, 4.2, 4.6, 4.7, 4.8 SS 1.2, 1.3 CD 1.2 H&PD 1.2, 2.1, 2.4	Read the shared reading big book "My Puppy." <ul style="list-style-type: none"> In a modelled writing activity, discuss and record children's responses to what they need (safety, nutrition, love, etc.). In a learning centre, have small groups work together to create a Needs and Wants poster. Have children use invented spelling to complete the stem sentence I need ____. 		
EL 1.1, 1.2, 1.3, 1.5, 1.8, 4.1, 4.2, 4.3, 4.8, 4.9 EN 4.1 SS 1.1, 1.2, 3.1, 3.2 S 1.1, 1.2 H&PD 2.1	After discussing healthy food (Canada's Food Guide), visit a grocery store. In a modelled writing activity, develop a list of questions to ask at the grocery store. Encourage children to use their five senses appropriately during the visit. <ul style="list-style-type: none"> Bring healthy foods for children to taste. Set up a grocery store in dramatic play. Have children sort food in different categories (fruit/veg., dairy, cereal, and meat). Provide paper and pencils for children to make grocery lists. 		
EL 1.2, 1.4, 1.8, 4.2 SS 1.3, 3.3 H&PD 1.1, 1.3, 2.3	It is important that children understand the need for daily physical activity. <ul style="list-style-type: none"> Plan an obstacle course (gym, outdoors, classroom). Give directions for children to go around, under, over, etc. Involve children in the planning of the obstacle course. Draw the plan on a large surface. 		

Key Question 3: How do I belong?

Outcomes	Learning Experiences	Assessment Strategies	Resources
EL 1.9, 3.1, 3.10, 4.1, 4.2 SS 1.1, 1.3 H&PD 2.3, 2.4, 2.5 CD 1.3	<ul style="list-style-type: none"> • Read a book about belonging such as <i>Chrysanthemum</i> by Kevin Henkes. • Have children represent feelings they may have when they feel they don't belong (act-out, draw/create). • Discuss and create a class list of words that hurt me and words that make me feel good. 		
EL 1.8, 4.1, 4.2 SS .1, 1.3 H&PD 2.4, 2.5	<ul style="list-style-type: none"> • Discuss and record with children how following rules help you belong (on the playground, learning centres, at home, when driving a bike, etc.). • Create a list of groups children belong to (ex. kindergarten, soccer, family, friends). 		

Step 6: Decide on Assessment Strategies

Effective and comprehensive assessment in the kindergarten classroom

- is ongoing
- informs and directs teaching to improve learning
- guides the educator in the selection of developmentally appropriate teaching strategies
- is collected in individual, small-group, and whole-group learning situations
- identifies strengths and needs
- provides essential feedback to parents/guardian.

Other sources of assessment data may include the following:

Observation	Work Samples
<ul style="list-style-type: none">• anecdotal records• conferences• interviews• surveys	<ul style="list-style-type: none">• portfolios• paper and pencil tasks• journals• scrapbooks• projects• photographs

It is important that the activities educators plan and use are meeting the intended outcomes and that children are showing growth and development in all areas.

Final Thoughts

Samples of learning experience, resources, and assessment strategies provided in this section may serve as a springboard for educators to develop similar units. Educators are encouraged to adapt, modify, identify, or create new learning experience and select additional resources that better meet the needs of the children and suit individual teaching styles.

Ongoing reflection throughout the process of planning, implementing, and assessing helps educators refine the unit in a number of ways. This can be as simple as the educators making notes to identify aspects that went extremely well and those that required some adjustment. Children also generate valuable feedback through their level of interest and participation.

Eight Multiple Intelligences

Intelligence	Children with this intelligence...
Musical - sensitivity to pitch, melody, rhythm, and tone.	<ul style="list-style-type: none"> listen to and play music, sing, hum, move to the rhythm, and create and replicate tunes.
Logical/Mathematical - the ability to handle chains of reasoning and to recognize patterns and order.	<ul style="list-style-type: none"> enjoy working with numbers, want to know how things work, ask lots of questions, collect items, and keep track of their collections.
Interpersonal - the ability to get along with, work with, and interact with others.	<ul style="list-style-type: none"> have many friends, tend to negotiate between them and to be excellent team players.
Intrapersonal - the ability to understand and express one's own emotions and those of others.	<ul style="list-style-type: none"> control their feelings and moods and often observe and listen. are aware of their personal abilities and often do best when working alone.
Bodily/Kinesthetic - the ability to use the body or parts of the body to solve problems, as in playing a ball game, dancing, or making things.	<ul style="list-style-type: none"> play sports and love to be physically active. tend to use body language and like dancing, acting, or other movement activities.
Spatial - the ability to see in pictures and images, to understand the order of things (particularly objects and images), and to take what is learned and create something new.	<ul style="list-style-type: none"> excel at art. They doodle, paint, draw, and build with blocks. enjoy looking at maps, doing puzzles and mazes. can take things apart and put them back together again in new and creative ways.
Naturalist - the ability to recognize and classify the various plants and animals of our environment.	<ul style="list-style-type: none"> spend time outdoors observing plants, collecting rocks, and catching insects. are attuned to relationships in nature.
Verbal/Linguistic - sensitivity to the meaning and order of words.	<ul style="list-style-type: none"> tend to use an expanded vocabulary and usually like to tell jokes, riddles, or puns. like to read, write, tell stories, and play word games.

Integrated Daily Activities

Many activities that are done on a daily basis in kindergarten meet many outcomes across the curriculum. The following is a snapshot of the outcomes that may be covered throughout the day. The outcomes that are met during the day are also dependent on activities that may be incorporated into the daily schedule. For example, if an educator asks about a healthy food choice during Question of the Day, this would then meet an outcome in Health and Physical Development. It is also important that educators become very familiar with all the outcomes as this makes integration easier and supports children's learning.

Sign-In

EL 3.7 Begin to match one-to-one spoken to printed word.
EL 3.8 Begin to recognize some sight words, environmental print, and words that have personal significance.
EL 4.7 Understand that letters can be written in upper and lower case.
SS 1.1 Recognize and discuss personal interests, characteristics, and preferences that make them unique and special.
H&PD 1.2 Develop control of small muscles.

Question of the Day

EN 1.3 Count to determine the number in a group.
EN 1.6 Determine which group has more, which group has less, or which are equivalent.
EL 1.3 Begin to ask and respond to questions, seeking help or information.
EL 1.4 Follow and give directions in different contexts.
EL 3.2 Understand basic concepts of print including directionality, word, letter, and sound.
EL 3.7 Begin to match one-to-one spoken to printed word.
EL 3.8 Begin to recognize some sight words, environmental print, and words that have personal significance.

Daily Message

EL 1.2 Listen to ideas and opinions of others.
EL 1.5 Participate in conversation and in small-and whole-group discussion.
EL 1.8 Demonstrate that they are becoming aware of social conventions in group work and cooperative play.
EL 3.1 Regard reading/viewing as sources of interest, enjoyment, and information.
EL 3.2 Understand basic concepts of print including directionality, word, space, letter, and sound.
EL 3.4 Use picture cues and prior knowledge to make sense of unfamiliar text.
EL 3.6 Begin to use knowledge of sounds/letter relationship to problem-solve unknown words.
EL 3.7 Begin to match one-to-one spoken to printed word.
EL 3.9 Name most of the letters of the alphabet in context.
EL 3.8 Begin to use some sight words, environmental print, and words that have personal significance.
EL 4.1 Understand that print carries a message.
EL 4.2 Begin to develop an awareness of audience and purpose.

Integrated Daily Activities *continued...*

Calendar

EN 1.1 Count in a variety of ways.
EN 1.3 Count to determine the number in a group.
EN 1.7 Use symbols to represent numbers in a variety of meaningful contexts.
EL 1.1 Express feelings and opinions and describe personal experiences and interests.
EL 1.2 Listens to the ideas and opinions of others.
EL 1.3 Begin to ask and respond to questions seeking help or information.
EL 1.5 Participate in conversation and in small-and whole-group discussion.
EL 3.2 Understand basic concepts of print including directionality, word, space, letter, and sound.
SS 1.1 Recognize and discuss personal interests, characteristics, and preferences that make them unique and special.
SS 2.2 Recognize that families have varied traditions, rituals, and celebrations.

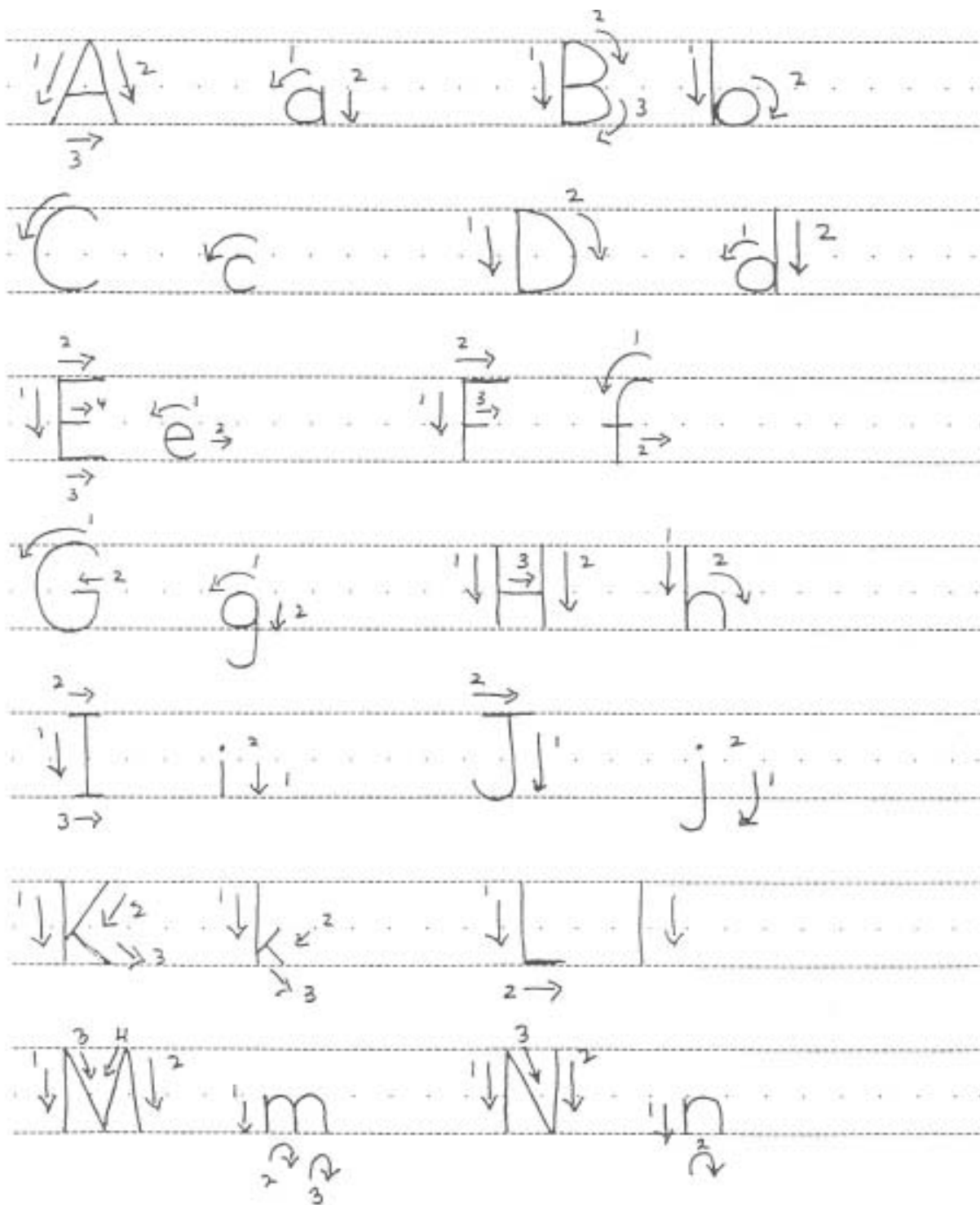
Snack

EL 1.1 Express feelings and opinions and describe personal experiences and interests.
EL 1.2 Listen to ideas and opinions of others.
EL 1.3 Begin to ask questions and respond to questions seeking help or information.
EL 1.5 Participate in conversation and small-and whole-group discussions.
EL 1.8 Demonstrate they are becoming aware of social conventions in group work and cooperative play.
SS 1.1 Recognize and discuss personal interests, characteristics, and preferences that make them unique and special.
SS 1.2 Begin to develop an awareness of needs and wants that are common to all children.
S 1.2 Develop and use vocabulary associated with the five senses.
H&PD 2.1 Explore and recognize the benefits of healthy food choices.
H&PD 2.2 Practice and discuss hygiene and health care habits.
H&PD 2.5 Apply basic safety rules.

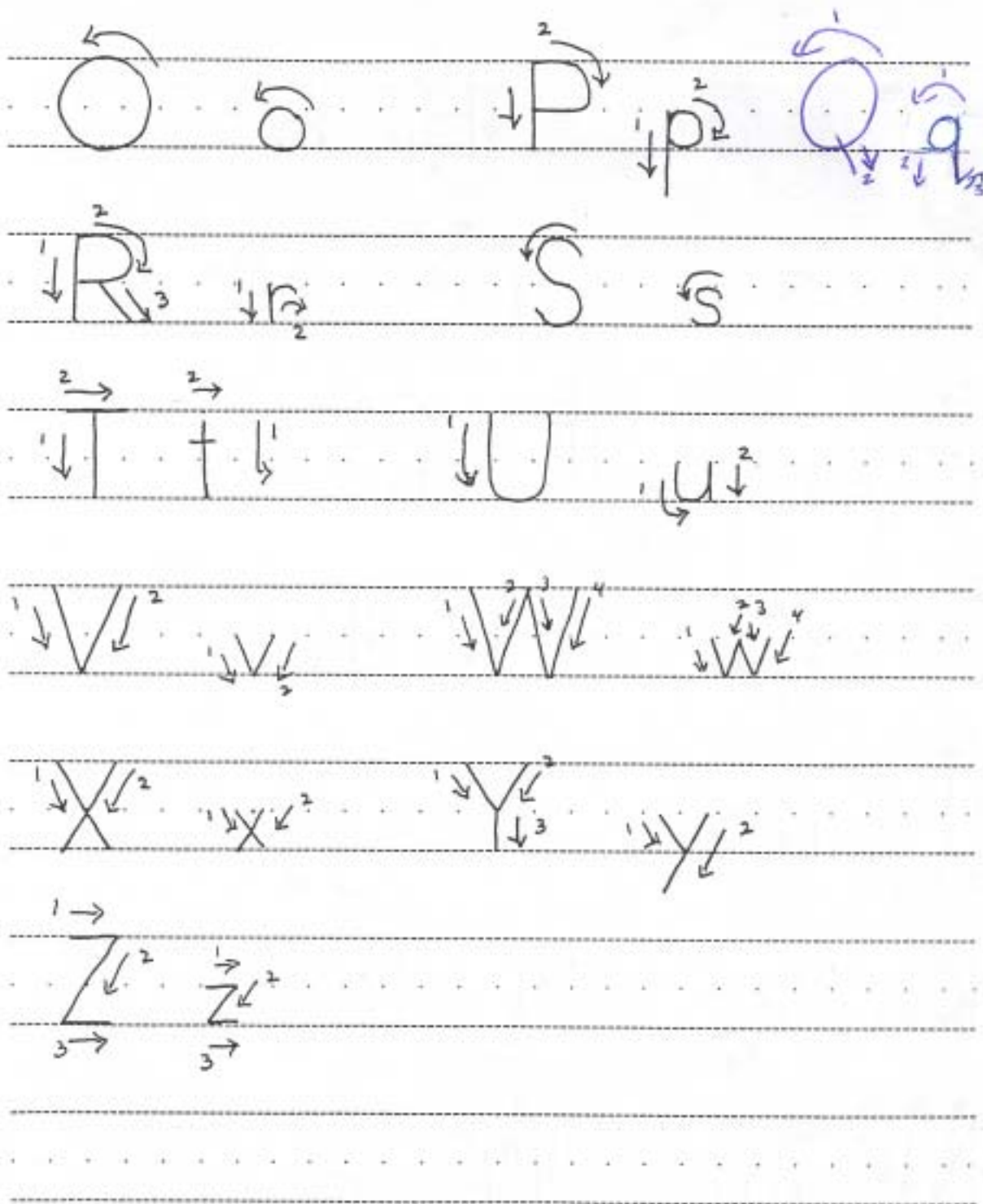
Effective Literacy At a Glance

Effective Literacy Instruction		
<p>Oral Language The expression, understanding, and use of spoken words. Experiences that promote oral language include</p> <ul style="list-style-type: none"> • Playing and experimenting with sounds • Building vocabulary • Storytelling • Sharing ideas <p>Phonological Awareness An understanding of the sound structure of language. Language is made up of</p> <ul style="list-style-type: none"> • Words • Syllables • Rhymes • Sounds (Phonemes) 	<p>Reading & Viewing An active process of understanding written text. Components include</p> <ul style="list-style-type: none"> • Read-alouds • Shared reading • Guided reading • Independent reading 	<p>Writing & Representing The ability to put thoughts into print. Components include</p> <ul style="list-style-type: none"> • Modeled writing • Shared writing • Guided writing • Independent writing

Suggested Printing Pattern



Suggested Printing Pattern continued



Five-frame

Ten-frame

1	2	3	4	5	6

Number Cube Game

Roll the number cube. Print the number in the column.
Which number will win?

Organizer Board

Bibliography

Bibliography

- Charlesworth, Rosalind, & Karen K. Lind, *Math and Science for Young Children*, 3rd ed. Delmar, 1999.
- Culham, Ruth, *6 + 1 Traits of Writing*, Scholastic, 2005.
- Ericson, Lita & Juliebo, Moira Fraser, *The Phonological Awareness Handbook for Kindergarten and Primary Teachers*, International Reading Association, 1998.
- Fisher, Bobbi, *Joyful Learning in Kindergarten*, Portsmouth, NH: Heinemann, 1998.
- Fountas, Irene C., & Pinell, Gay Su, *Teaching Comprehension and Fluency*, Portsmouth, NH: Heinemann, 2006.
- Fountas, Irene C., & Pinell, Gay Su, *The Continuum of Literacy Learning Grades K-2*, Portsmouth, NH: Heinemann, 2006.
- Helm, Judy Harris & Katz, Lilian, *Young Investigators: The Project Approach in the Early Years*. Teachers College Press, 2001.
- Hirsh, Rae Ann. *Early Childhood Curriculum: Incorporating Multiple Intelligences, Developmentally Appropriate Practice, and Play*. Pearson Education, 2004.
- Katz, Lilian G., & Chard, Sylvia C., *Engaging Children's Minds: The Project Approach* 2nd ed. Alex Publishing Corporation, 2000.
- Owocki, Gretchen, *Literacy Through Play*, Portsmouth, NH: Heinemann, 1999.
- Rog, Lori J., *Early Literacy Instruction in Kindergarten*, International Reading Association, 2001.
- Shipley, Dale. *Empowering Children: Play-Based Curriculum for Lifelong Learning*. Nelson Canada, 1993.
- Trehearne, Miriam P., *Kindergarten Teacher's Resource Book*. Nelson Thomson Learning, 2000.
- Van De Walle, John A., *Elementary and Middle School Mathematics* 4th ed. Adison Wesley Longman, 2001.

