The Full-Day Early Learning – Kindergarten Program

Draft Version



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Une publication équivalente est disponible en français sous le titre suivant :

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PERSONAL AND SOCIAL DEVELOPMENT

OVERVIEW

The personal and social development of young children lays the social and cognitive groundwork that fosters a love for school, engages the children in the process of learning, and supports future success in school and in life. Early learning programs focus on who the children are, and support and encourage them to reach their full potential. In partnership with the home, the school plays a vital role in developing social competence by providing the tools and knowledge that children will need in order to play a constructive role as citizens.

Children enter early learning programs with a diverse range of needs, experiences, and abilities. The rate at which children adapt to the school environment will vary. The members of the Early Learning–Kindergarten (EL–K) team,* in their relationships with families, play an essential role in facilitating the transition that children face. The EL–K team and families also collaborate with other significant partners, such as school and community resource teams, to ensure the best possible transition to the school environment.

The Full-Day Early Learning–Kindergarten classroom must be an environment where children are affirmed as individuals and as members of a diverse community of learners. The learning and teaching program should provide opportunities for children to discover their strengths, interests, and abilities, put forth their ideas, and develop their relationships with others. The EL–K team members should observe the children in their classrooms in order to plan effectively and should adjust their teaching methods to meet the unique needs of each child. Understanding

of the influence of social and cultural contexts on learning enables the EL–K team to recognize and support the children's developing competence and to find a variety of ways in which the children can express their accomplishments. The EL–K team should include learning opportunities that reflect the diverse backgrounds of the children (e.g., stories, songs, dance, poetry, and items from their homes and backgrounds).

Expectations for personal and social development are organized under the subheadings of "Social Development" and "Emotional Development". Young children begin their personal and social development by learning about themselves, about themselves in relationship to others, and about themselves in relationship to the world. Social, personal, and emotional growth and learning develop through interactions with others, and are interconnected with other areas of development, such as cognitive and motor skills. For example, a small group of children engaged in sorting math manipulatives must follow a problem-solving process both mathematically and socially. Children learn cognitive, motor, and social skills when they role-play at the dramatic play centre, experimenting with a variety of social roles (e.g., store clerk, bus driver, grandparent). Children learn to persevere and to work independently as they solve puzzles, create sculptures, and construct models.

^{* &}quot;Early Learning–Kindergarten team" refers to the Kindergarten teacher and the early childhood educator(s) in a Full-Day Early Learning–Kindergarten classroom. The abbreviation "EL–K team" will be used throughout the remainder of the text and in the chart in this section.

"Self-regulation is a deep, internal mechanism that enables children as well as adults to engage in mindful, intentional, and thoughtful behaviors." Nurturing relationships support children's development of self-regulation. The focus shifts from rules that are enforced by adults to ensure compliance to internal guidance that transcends the need for adult reinforcement and direction. The EL–K

team members should use their understanding of self-regulation to become attuned to individual differences in children. When the EL–K team members pay attention to differences among individual children and their ability to manage incoming sensory stimulation and challenges, they establish nurturing relationships that strengthen children's capacity for learning.

SOCIAL DEVELOPMENT

Social development includes children's growing abilities to empathize and get along with others. Four- and five-year-old children move beyond an egocentric view of the world and can learn to resolve conflicts and make decisions collaboratively and can develop a sense of community. The ability to work and to learn with others is essential for success in and out of school. Children need opportunities to interact with others in many contexts and for many purposes. As children learn about themselves and their culture, they also begin to understand that all people share similar needs, feelings, and aspirations. In the Full-Day Early Learning–Kindergarten program, children can engage in activities that increase their awareness of others and foster respect for individual differences. They begin to develop understanding of the concepts of equality, fairness, tolerance, and justice in relation to the treatment of minority groups, individuals of both sexes, people with special needs, and those with diverse family structures.

Interactions in the Full-Day Early Learning–Kindergarten program support children's development of the tools and knowledge they require to be constructive citizens. The classroom must be an environment in which children are affirmed as individuals and as members of a diverse community of learners. Understanding the influence of social and cultural contexts on learning enables educators to recognize and support the children's developing competence and to find a variety of ways in which the children can express their accomplishments.

^{9.} Elena Bodrova and Deborah J. Leong, "Developing Self-Regulation in Kindergarten", in *Beyond the Journal – Young Children on the Web* (NAEYC, March 2008), p. 1. Available at http://www.naeyc.org/files/yc/file/200803/BTJ_Primary_Interest.pdf.

Big Idea: Children are connected to others and contribute to their world.

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- 1. identify and use social skills in play and other contexts;
- **2.** demonstrate an ability to use problem-solving skills in a variety of social contexts;

demonstrate a beginning understanding of the diversity in individuals, families, schools, and the wider community.

Overall Expectation 1: identify and use social skills in play and other contexts

Professional Learning Conversations

After attending a professional development workshop, the members of the EL–K team decide to focus on the role of different children in group activities by discussing individual characteristics of the children, such as: "Roy is tall and he can reach the pieces on the top" and "Meika's hands fit in the small holes where the marbles rolled". The team discusses with the children ways in which their individual strengths can be valued and used in the group.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning (Note: Children are not required to demonstrate their learning in all three ways.)	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
1.1 act and talk with peers and adults by expressing and accepting positive messages (e.g., use an appropriate tone of voice and gestures, give compliments, give and accept constructive criticism)	Saying "Fatima helped me pick up the blocks." "I didn't like it when you took my book." "That's a good painting."	Responding A member of the EL–K team observes that children at the block centre are taking blocks from a structure that other children are building. The team members decide to model some strategies on cooperation for the children. They also decide to notice and name positive strategies used by the children (e.g., "I noticed you listening to Jay's suggestions for building your tower") in order to support development of self-regulation.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	Doing One of the children who participates in the Full-Day Early Learning–Kindergarten program finds her friend's name card in the basket and hands it to her as she arrives in the room. Representing Following a session on expressing and accepting positive messages, several parents reported that their children were using this skill at home with siblings and extended family members.	Challenging While reading a book aloud, a member of the EL–K team poses the following questions: "Why is the main character in the story scared? How would you feel? What do you think he could do to make himself feel better?" Extending On the basis of their observations, the team members decide to put more blocks in the block centre so that the children have sufficient materials to build more complex structures.
1.2 demonstrate the ability to take turns in activities and discussions (e.g., engage in play activities with others, listen to peers and adults)	"You can be the firefighter this time." "I like what you're building. Can I help?" "Do you want to look at this book with me?" "Let's put on a puppet show." "Do you want to be the waiter? I'd like to order a pizza, please." Doing The EL-K team places new materials at the dramatic play centre. One child begins to negotiate roles, and together the children decide who will be the first to use the new materials.	Responding Some children are seated in a small group at a table, representing their opinions on a class graph. A member of the EL–K team says, "I noticed you came back when you saw there was space for you at the table." Challenging The members of the team know that some children in the class have moved beyond parallel play, so they put out a small collection of building materials for making marble runs. Because the team members have limited the amount of materials available, the children have to find ways to work together.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	Representing Two children make a list of the new materials and the names of the children who will use them.	Extending The team members observe the children at the dramatic play centre solving the problem of who will be the first to use the new materials that have been placed at the centre by the team. The team members ask the children to share their solution, including their list, with the rest of the class.
1.3 demonstrate an awareness of ways of making and keeping friends (e.g., sharing, listening, talking, helping; entering into play or joining a group with guidance from the EL-K team)	"Can I play with you? I'll be the" "You can use this scoop after me." "I'll pick up these ones and you can pick up those ones." Doing As the children are coming together into a large group, one of the children notices that another child does not have a place to sit; he moves over, gesturing for the other child to sit. Representing One of the children paints a picture and says, "This is me with my friend in the park."	"I saw you helping with the counting game on the computer." "I was watching you share the trucks with the other children at the sand centre." Challenging The EL-K team member who was watching the child share the trucks says, "Look how many more you have than each of the other children has. How will you work it out so that everyone has the same number of trucks?" Extending The next day, the EL-K team member observes the same child sharing some blocks in a more equitable manner, and models the connection for her by saying, "You were really thinking – that was just like being fair with the trucks yesterday."

Overall Expectation 2: demonstrate an ability to use problem-solving skills in a variety of social contexts

Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
2.1 use a variety of simple strategies to solve social problems (e.g., seek assistance from the EL–K team when needed, develop an awareness of honesty, talk to peers about possible solutions)	"I tried to tell her I had the ball first but she took it anyway." "The snack sign says '3 apple slices' but I took 4." "Why don't we try and put this block on the bottom so the building won't fall over?" Doing A group of children are working at the ABC/word study centre. One of the children is looking for a magnetic letter "d" to make her name. One of the other children finds it for her. Representing After listening to a story, the children at the dramatic play centre represent their solution to the problem that one of the characters in the book is feeling left out. Their solution is to include everybody so that no one will feel sad.	Responding An EL–K team member makes an observation note on a child's suggestions regarding a new way to store the blocks so they are easier to tidy up. Challenging A team member asks a small group of children to help solve the problem that water is getting all over the floor at the water table. Extending The team lists members of an "expert group" of children to whom other children can go for help with their zippers, buttons, and gloves. Children's names are added as they become "experts" and are able to help other children.

Overall Expectation 3: demonstrate a beginning understanding of the diversity in individuals, families, schools, and the wider community

Professional Learning Conversations

A group of educators and parents decide to read a book together as part of their professional learning for the year. The focus of the book and their dialogue is to reflect on their own personal biases and assumptions and the impact that those have on the children.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
3.1 develop empathy for others, and acknowledge and respond to each other's feelings (e.g., tell an adult when another child is hurt/sick/upset, role-play emotions with dolls and puppets)	"She is crying because she is sad about her friend." "You can have this book because you like trucks." "Why don't you sit here, then you would feel better." Doing A few of the children are role-playing at the "Fix-It Shop" in the dramatic play centre. Another child attempts to enter the play and is assigned a role by one of the children: "You can be the customer because you are a girl." The other children in the group protest: "That isn't fair. Girls can fix cars, too!" Representing One of the children paints a picture showing how he gave his car to his friend who was sick.	Responding The EL–K team models empathic language for the children, such as "You were showing empathy when you". In their observation records, the EL–K team notes examples of children showing empathy, which the extended-day member of the team shares with the children's parents. Challenging The EL-K team asks children to predict how others might act as a result of something that has been said or done to them, and to identify the reasons for that behaviour, using examples such as the following: "If I share with someone, she might" "How might someone react if something he was playing with broke?" "How does someone's face show us his or her feelings?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
		Extending After reading a book in which the central character shows empathy, a member of the EL–K team places the book and some puppets in the retelling centre. While the children are re-enacting the story, the team member takes observation notes and makes an audiotape of the children's conversation, and then uses the information to plan further lessons on showing empathy.
3.2 demonstrate respect and consideration for individual differences and alternative points of view (e.g., help a friend who speaks another language, adapt behaviour to accommodate a classmate's ideas)	"I agree with" "That is just like when I" "OK, we could try it that way." Doing With their reading buddies, the children read books about helping others, and show respect for different responses as they read. Representing A group of children make puppets at the visual arts centre for a puppet show after viewing a DVD about respecting different points of view.	"I notice that you listened to D's idea about how to make your tower more stable." "I know you are angry with B How do you think B is feeling?" Challenging The EL–K team observes a group of children debating over what they should build with the blocks. A team member scaffolds the children's learning by prompting their thinking: "He feels different about what you should make with the blocks. How are you going to solve this problem?"

Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
		Extending The EL–K team members observe the children to determine the specific contexts in which the children demonstrate consideration of other points of view. They then consider areas where the learning needs to be extended, and plan to build appropriate activities into their learning plans. For example, they plan to read aloud books in which the main character shows respect for other points of view.
3.3 talk about events or retell stories that reflect their own heritage and cultural background and the heritage and cultural backgrounds of others (e.g., traditions, birthdays, cultural events, myths, Canadian symbols, holidays)	"That is my language." "My family" "My uncle told me" Doing At the dramatic play centre, children role-play various events from their experiences. Representing A child brings in a dual-language book he borrowed from the library to show his class a story in his language.	Responding The EL–K team members invite children's family members into the classroom to share stories of important family events, and then invite the children to talk about those events. Challenging An EL–K team member observes a child writing about her family picnic in the dramatic play centre. The team member supports the child while she "stretches out" the words to include all the sounds she heard. Extending The team places books in the block centre that illustrate homes and structures from around the world, ensuring that the images do not represent stereotypes.

EMOTIONAL DEVELOPMENT

The EL–K team nurtures children's development of self-concept, self-reliance, and self-regulation by creating a warm and responsive environment, which contributes to children's ability to experience success. Through a variety of experiences, children begin to see themselves as unique. Children need regular opportunities throughout the day to learn and value the interpersonal skills required to communicate and cooperate with others. As they develop self-confidence, they become more receptive to relating to others, and take pleasure in learning new skills. As children's self-concept develops, they demonstrate autonomy in selecting materials, making choices, and setting goals for themselves. The EL–K team supports children's development of social competence and emotional maturity by modeling problem solving and alternative ways to manage conflict and by affirming positive choices. The EL–K team plays an important role in children's lives, since children who develop a positive self-concept early in life become more successful learners later in life.

Emotional maturity includes the capacity to understand and express emotions with respect for others, to delay gratification, and to adapt responses. As children develop a positive sense of themselves as unique individuals, they acquire self-confidence and become more receptive to relating to others, and they take pleasure in learning new skills. As children's self-concept develops, they demonstrate autonomy in selecting materials, making choices, and setting goals for themselves.

Emotional regulation is central to all of these elements of emotional maturity. Individuals vary in their ability to regulate their emotions – for example, there are differences in reaction time and in the duration and intensity of emotional response. Children's cultural context also contributes to their emotional expression. In their homes, children learn to value particular ways of expressing emotions, and they learn from their families how and when to express emotions to others. When adults understand cultural and individual differences, they can contribute positively to the child's development of a sense of self.

Big Idea: Children have a strong sense of identity and well-being.

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- 1. demonstrate a sense of identity and a positive self-image;
- 2. demonstrate independence, self-regulation, and a willingness to take responsibility in learning and other activities;
- 3. demonstrate an awareness of their surroundings.

Overall Expectation 1: demonstrate a sense of identity and a positive self-image

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
1.1 recognize personal interests, strengths, and accomplishments	"I can sing a song in my language." "I can reach the lights now." "I can skate." "I can draw pictures." "I helped my dad set the table." Doing After learning how to do up her own zipper, a child offers to help other children with the zippers on their coats. Representing A child builds a structure with small blocks representing himself playing soccer.	Responding The EL–K team notices and names a child's strengths and accomplishments. "You were really thinking about how to make your structure stable." "You learned to do up your coat, which was so hard for you to do before." Challenging A group of children use five cubes to see how many different number stories they can make for the number 5. A member of the EL–K team invites the children to share their number stories with another group of children.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	
		Extending The team member then increases the number of cubes, and
		asks the children to create number stories for the new number.
1.2 identify and talk about their own	Saying	Responding
interests and preferences	"On the weekend, we went to see the reptiles at the zoo. My favourite is a snake."	The EL–K team members observe the children talking about what things they like, such as animals, foods, and activities.
	"I like spaghetti better than pizza."	They document the responses for use in future planning.
	"Can you help me find some stories about bugs?"	Challenging
	Doing	The team members ask the children what changes they
	A group of children decide to select books from a	would like to make in the dramatic play centre.
	basket that are focused on their interest in bugs.	Extending
	Representing	A team member works with a few children in a small
	A group of children builds a structure at the block centre over several days after talking and thinking about different kinds of buildings.	group to make a list of the materials they need to change the dramatic play centre, and then works with another small group of children to gather and set up the new materials.

Specific Expectations
As children progress through the Full-Day Early Learning–Kindergarten program, they:

Making Connections: Ways in Which Children Might Demonstrate Their Learning

Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions

1.3 express their thoughts (e.g., on a science discovery, on something they have made) and share experiences (e.g., experiences at home, cultural experiences)

Professional Learning Conversations

The EL–K team decides to invite the children to retell family stories, using prompts such as: "Cecil, your mother said that you had a lot of people at your house this weekend. Did you have fun? Tell us about some of the things you did." By being given regular opportunities to tell and hear family stories, children can learn to understand better how they and their families are both alike and different. Freely talking about their own family can also reinforce children's sense of self-respect and pride.

Saying

"I think that"

"Look what I did. I"

"In my family we"

"I know how many there is – there's five. I counted them."

Doing

After hearing a story, a group of children retell and dramatize the story using props at the sand table.

Representing

A group of children show the class how they predicted and then discovered how to move water between two containers by using a tube.

Responding

An EL-K team member observes children engaged in an inquiry at the water table, and asks them questions such as: "What did you notice about the way the water moved?"

"What did you notice when you changed the size of the container?"

Challenging

A team member supports children to think more deeply about their inquiries by asking questions such as:

"What do you think will happen when ...?"

"What happened when ...?"

Extending

The team members videotape children in a small group talking about a book they have just read. The team views the videotape and analyses the information gathered. They then use the information to plan lessons that will extend the children's ability to use language to reflect on their experiences and to present events in proper sequence.

Overall Expectation 2: demonstrate independence, self-regulation, and a willingness to take responsibility in learning and other activities

Professional Learning Conversations

After attending a workshop on self-regulation in the early years, the members of the EL–K team talk about how they can support the children in learning how to wait their turn to talk without asking them to raise their hands to speak. They discuss how self-regulation is very different from compliance. They decide to try a think-pair-share activity to scaffold the children's experience with listening and taking turns to talk in group discussions.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
demonstrate self-reliance and a sense of responsibility (e.g., make choices and decisions on their own, take care of personal belongings, know when to seek assistance, know how to get materials they need)	"I can do it by myself." "I remembered to bring my hat." "I'm going to play in the sand today." Doing In advance of a neighbourhood walk, the class makes a list of things that they can do to be safe when they are outside the classroom. On the day of the walk, most of the children arrive with a hat and sunscreen. Representing A small group of children makes a sign for the block centre that says, "Please Tidy Up the Blocks".	In order to support the children's development of independence, the EL–K team invites the children to use their name cards to choose the centres they want to work at throughout the day. Challenging Before a class trip outdoors, the EL–K team guides a discussion with the class about things they need to do to prepare to go outside. "What are some things we each need to remember to bring? How can we make sure that we remember everything?" "What are some ways that you can make sure that you have everything that belongs to you throughout the trip?" Extending After observing the sign making that some of the children initiated at the block centre, the EL–K team invites the children to think about other centres where signs might be needed, and then to create the signs.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
 2.2 demonstrate a willingness to try new activities (e.g., experiment with new materials/tools, try out activities in a different learning centre, select and persist with challenging activities, experiment with writing) and to adapt to new situations (e.g., having visitors in the classroom, having a different teacher occasionally, going on a field trip, riding the school bus) 2.3 demonstrate self-motivation, initiative, and confidence in their approach to learning by selecting and completing learning tasks (e.g., choose learning centres independently, try something new, persevere with tasks) 	"I'm going to try this hard puzzle again today." "Let's try to make it really long." "Can you help me hold this tube so it will go into the funnel?" Doing One of the children who previously had difficulty selecting a place to work chooses to go to the play-dough centre, and is able to work there for a sustained period of time. Representing A child paints a picture and says, "This is me riding on the school bus for the first time."	Responding At the request of a child, the EL–K team helps her to hang her painting in the class art gallery. Challenging After observing one of the children working for a sustained period of time at the play-dough centre, the team adds clay to the materials available so that the children have an opportunity to use a different medium. Extending The team observes that a few children always choose to go to the reading centre and/or the writing centre, but rarely try any of the other centres. After sharing their observations with each other, members of the team add writing materials to the sand and water centres. They then observe that the children begin to go to these centres and to use all of the materials at each one.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
2.4 begin to demonstrate self-control (e.g., be aware of and label their own emotions, accept help to calm down, calm themselves down after being upset) and adapt behaviour to different contexts within the school environment (e.g., follow routines and rules in the classroom, gym, library, playground)	"I'm feeling better now. I'm ready to talk." "I'm really frustrated." "We get to run in the gym." Doing While involved in a role-playing activity at the dramatic play centre, a child looks away from the scene but then quickly resumes playing his role.	Responding During a read-aloud time, a member of the EL–K team observes that a child has moved away from another child in order to solve a problem. The team member says, "You moved to a spot that works better for you." Challenging The team members provide opportunities for the children to use language to express and regulate their emotions, and ask questions such as, "What do you notice happens to your
Professional Learning Conversations The EL–K team members have a breakfast meeting with parents on supporting the children's development of self-regulation. At the meeting, one child's mother said, "Whenever he is concentrating on his building blocks at home, he turns his back to the rest of us and focuses on what he is making." This information gives the team an insight into how to help this particular child focus his attention when he is in class.	Representing A group of children make a sign and post it by the door. The sign reminds all the children in the class to walk, not run, in the halls when they go to the gym and the library.	body when you are angry or frustrated?" Extending The team decides to play music and do yoga to support the children in developing awareness of their body and emotions.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
2.5 interact cooperatively with others in classroom events and activities (e.g., offer and accept help in group situations, engage in small- and large-group games and activities, participate in democratic decision making)	"I think we should make sure there is enough for everyone." "Thanks for helping me tidy up." "You can play with us if you want." Doing A child who has chosen to work alone at centres where there are few other children chooses to join some children at the music centre who are composing rhythmic patterns on the xylophone. Representing A group of children create a one-to-one chart to ensure that everyone in the group gets a place at the snack table.	Responding Members of the EL–K team document their observations of a child who has joined a group of children for the first time. After observing for several minutes, a member of the team also joins the group. "I notice that you offered to help tidy up the blocks so that you can all start to build something new together." "How will you decide what you want to build? How will you make sure everyone has a job to do?" Challenging The team members hear some of the children talking about how many places would be needed at the snack table, and invite them to think about what would happen if one more person joined the group or if one left the group. Extending The team asks the children to solve the problem of sharing computer time if everyone in the class wants time on the class computer.

Overall Expectation 3: demonstrate an awareness of their surroundings

Professional Learning Conversations

At their planning meeting that includes parents, members of the EL–K team reflect on how they could better engage the community. A parent suggests inviting community members to speak to the children about their experiences.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
 3.1 recognize people in their community and talk about what they do (e.g., farmer, park ranger, police officer, nurse, Aboriginal healer, store clerk, engineer, baker) 3.2 recognize places and buildings within their community, both natural and human-made, and talk about their functions (e.g., farm, church, hospital, mosque, sweat lodge, arena, mine, cave) 3.3 develop an awareness of ways in which people adapt to the places in which they live (e.g., children in cities may live in high-rise buildings and use sidewalks and the subway; children in the country may take the bus to school) 	"I was in the hospital to get my broken arm fixed." "I'm making a map of" "The police officer used the car siren when she came to visit our class." Doing Two children work at the block centre to create a bake shop. One of the children, whose uncle owns a bakery, explains what materials are needed. Representing Children in a small group use a variety of materials to construct a model of a building in their community that has significance for them.	Responding In preparing the children for a neighbourhood walk, the EL–K team asks the children what they think they might see along the way. The predictions are recorded. The team then invites the children to record what they actually see on the walk, using a variety of ways (e.g., lists, photos, drawings). Challenging After the neighbourhood walk, the team members discuss the findings with the children, using prompts such as: "Why do children at our school take a school bus to and from home each day?" "Some of the children in our class live with their families in high-rise apartment buildings. Do people who live in the country live in apartments? Why or why not?" Extending The team uses a WIKI to share the children's findings with similar classes in neighbourhoods that are different from theirs. They support the children in comparing and contrasting the various neighbourhoods.



Using Children's Prior Knowledge and Experience

Before going to school, children have already had a wide range of lived experiences with spoken, written, and visual communication, and have used language in familiar contexts. They have also developed ways of using language that are specific to their cultural and linguistic contexts. By building on the language development and the understandings that children bring to school, the Early Learning–Kindergarten (EL–K) team* can provide children with the learning experiences they need, as well as support and guidance in their learning. By encouraging children to develop competence in language use, team members can also help children learn about the role and power of language in their own lives and in their own and other cultures.

The EL–K team plans programs that allow children to explore language and to communicate their thinking and learning in meaningful ways to both team members and their peers. Team members make decisions about the use of materials and the focus of their teaching that are based both on the learning expectations and on their observations of the children's needs, and they create an environment that supports language learning and literacy in many ways. For example, they provide rich and varied materials and hands-on experiences to encourage talking, reading, writing, and viewing media texts, and they organize the classroom to promote discussion. They also motivate children to attempt new things – such as writing using approximate spellings – and they show that they value these attempts.

* "Early Learning–Kindergarten team" refers to the Kindergarten teacher and the early childhood educator(s) in a Full-Day Early Learning–Kindergarten classroom. The abbreviation "EL–K team" will be used throughout the remainder of the text and in the chart in this section.

The EL–K team uses ongoing assessment to determine children's learning strengths and needs in literacy in an intentional way throughout the day. Team members continually help children to clarify what they already know, and they organize learning experiences and provide support to enable children to build on previous knowledge in small steps and gradually gain independence.

Building on Oral Language

Although children develop skills in reading, writing, and oral language (listening and speaking) from an early age, oral language must be the foundation of literacy development in the Full-Day Early Learning-Kindergarten program. Through experience with oral language, children develop the ability to identify and manipulate phonemes (phonemic awareness), build vocabulary, develop awareness of meaning (semantic knowledge), and develop awareness of language structure (syntactic knowledge), and thus develop the foundations for reading and writing. Proficiency in oral language is critical to the success of literacy development. The EL-K team can guide oral language development by listening attentively to and observing children's responses and interactions, by providing models of richer responses to guide children's thinking, and by introducing new vocabulary. Although oral language is the focus of early language learning, reading and writing need to be taught and developed at the same time, so that children can make connections between what they hear, say, read, and write. Listening, speaking, reading, and writing are all interrelated, and development in one area supports development in all the others.

Using the Expectations

The expectations for language are arranged in the following order: oral communication, reading, writing, and understanding of media materials. They are, of course, aspects of an integrated learning process, and are applicable in all areas of learning. For example, a child engaged in a planting/growing activity at the science centre might be: developing the ability to listen to, follow, and retell simple instructions (oral communication); listening for a specific purpose in a "read-aloud" about caring for plants (reading); recording observations of the plant's growth over time, using pictures and/or words (writing); and viewing and discussing a DVD or video about protecting plants in the environment (media literacy).

The expectations are best addressed in ways that are meaningful and relevant for young children and that build on their prior knowledge and experience. In such activities, children can be encouraged to think critically – for example, to look at things from a different point of view or to connect what they are learning to an experience they have had or to information in another text they know. They can also be encouraged to think creatively – for example, to use what they already know in a different context, to represent their thinking through drawing or painting or movement, or to explore a new idea.

Using Assessment in Planning Instruction

In order to support children's individual progress, EL–K team members should plan a variety of learning experiences, including intentional instruction. On the basis of information gathered from ongoing assessment, they should make decisions about the kinds of support, instruction, and materials they need to provide. Children will be involved in small-group, whole-class, and individual learning experiences that address their needs, ideas, and interests and that are within the range of things they can do with and without guidance (in their zone of proximal development).

The duration and purpose of groupings will vary, depending on the length of time the children have been in school, the age and needs of the children, and the focus of instruction. *Children develop knowledge and skills in the various areas of language learning at different rates and in different ways.* As EL–K team members plan activities to meet children's individual needs, they may ask such questions as the following: What can this child do? What does this child know? What does this child need to learn next, and what will support his or her learning in order to meet the overall expectations?

Planning Experiences in Language Learning

Planning for language instruction should include consideration of a wide variety of learning experiences that develop foundational literacy skills. These experiences should encourage children to engage in free exploration, independent discovery, and independent application of what they have learned. Knowledgeable EL-K teams plan purposeful literacy instruction as part of a comprehensive literacy program, including the use of instructional strategies for modelled, shared, guided, and independent literacy learning activities. To support children's progress as language users and learners, team members may provide a variety of levels of support to help the children learn the skills and strategies outlined in the specific expectations. For example, they may plan to focus on a reading strategy, such as making connections. They may model the use of the strategy first by telling the children what a text reminds them of during a read-aloud. They then may encourage the children to do the same to help them make their own connections during other read-alouds or during shared reading of different texts. Team members may also encourage children to make connections independently between various texts if the children seem ready to do so. For example, children could discuss their responses to books that they have selected for independent reading with a small group of classmates in a shared reading activity with the EL-K team.

Literacy in Play-Based Learning

Socio-dramatic play that benefits four- and five-year-old children is complex. It involves shared symbolic representations and actions. Children use language to create a shared pretend scenario. Multiple ideas emerge, and players and materials are incorporated into the play without interrupting its flow. The children are able to coordinate and integrate many roles, often switching roles to extend the play. Children stay engaged in the play for extended periods of time and may continue developing the play over several days. The EL–K team supports complex socio-dramatic play by responding positively to children's play, providing rich and varied materials, making props and materials easily available to children, sharing ideas that extend children's play experiences and enrich the play, monitoring the progress of play, and coaching children who need support to stay part of the shared play scenario. EL–K team members purposefully engage children in literacy play activities such as making grocery lists, reading menus, or filling out appointment books in a veterinarian's office.

Recognizing and engaging in pretence (the central characteristic of dramatic or pretend play) involves an intricate set of activities and understandings. Pretend play is a form of communication that requires the participants to communicate with each other, using language gestures and symbolic gestures to tell and retell stories. In pretend play, children use language and thinking skills to compare, plan, investigate materials, problem solve, experiment, negotiate, and evaluate. Engaging in pretend play also supports children's development of self-regulation and subsequently strengthens their ability to learn through engaging with people and resources in their environment.

Books and storytelling extend children's imagination, memory, vocabulary, understanding of grammar and syntax, thinking ability, and development of self-regulation. Listening to stories allows children to follow simple texts and become familiar with the meaning of print. Retelling stories promotes deliberate memory, logical thinking, and regulation of attention. Creating new stories that have a story line that makes sense is a complex task for four- and five-year-old children and is connected to the skills they acquire in socio-dramatic play.

Building a Community of Literacy Learners

It is important for young children to see themselves as individuals who talk, listen, read, write, and view media texts in order to make sense of their world. Children need time to explore, 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 planned, purposeful activities at various learning centres, communicating their thoughts, posing questions, and investigating ideas. By using literacy materials in the learning centres, children learn to see reading and writing as integral aspects of their daily lives. Literacy experiences can be embedded throughout the day in authentic and meaningful ways. Activities should range from team-directed to child-initiated activities, with the goal of encouraging children to develop independence in their language learning.

The EL–K team should ensure that meaningful and inclusive literacy materials are distributed throughout the learning environment. For example, children could examine books about fire trucks at the block centre as they make a fire station; they could use writing materials to make signs or maps for their roads at the sand table; or they could look at and discuss menus as they learn about

ordering foods in restaurants at the dramatic play centre. Children could also learn about the central place of oral language, reading, and writing in their daily classroom routines - for example, by using visuals as they describe the order of events of the day; by using words and pictures to explain the routine for the painting centre; or by reading pictures and labels on materials to find out what they contain or where they should be put away. Development of a positive attitude towards language learning and enthusiasm for using language in all its forms will have a significant impact on children's future success.

For further information on teaching approaches for oral language, reading, and writing, including planning for development of literacy in learning centres, EL-K teams may wish to consult the following resource documents published by the ministry:

- A Guide to Effective Instruction in Reading, Kindergarten to Grade 3, 2003 (oral language and reading)
- A Guide to Effective Instruction in Writing, Kindergarten to Grade 3, 2006

Big Idea: Children are effective communicators.

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- 1. communicate by talking and by listening and speaking to others for a variety of purposes and in a variety of contexts;
- 2. demonstrate understanding and critical awareness of a variety of written materials that are read by and with the EL–K team;
- **3.** use reading strategies that are appropriate for beginning readers in order to make sense of a variety of written materials;
- 4. communicate in writing, using strategies that are appropriate for beginners;
- 5. demonstrate a beginning understanding and critical awareness of media texts.

Overall Expectation 1: communicate by talking and by listening and speaking to others for a variety of purposes and in a variety of contexts

Professional Learning Conversations

A group of educators discuss the importance of maintaining the child's home language. Their focus is on the role educators can play in helping families recognize the benefits of maintaining their home language, as an integral part of their culture, values, and social attitudes and behaviour.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning (Note: Children are not required to demonstrate their learning in all three ways.)	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
1.1 explore sounds, rhythms, and language structures, with guidance and on their own	Saying "That rhymes with my name." "That is the word 'sat'. I know because I know the word 'cat'." "My name has three [syllables]."	Responding EL–K team members create a learning centre using a filing cabinet and a table where children can work with magnetic letters. A set of the children's name cards is placed at the centre so that the children can make and break apart their names.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	Doing A small group of children make their names with magnetic letters. Representing A small group of children chant nonsense words to rhyme with their names.	Challenging A member of the EL–K team observes two children working at a centre. The team member places a class list at the centre so that the children can work with the names of other children in the class. Extending The EL–K team generates rhymes by identifying syllables through actions and in shared, guided, and independent activities such as singing songs or chants or participating in finger plays.
1.2 listen and respond to others for a variety of purposes (e.g., to exchange ideas, express feelings, offer opinions) and in a variety of contexts (e.g., after read-alouds and shared reading or writing activities; while solving a class math problem; in imaginary or exploratory play; at the learning centres; while engaged in games and outdoor play; while making scientific observations of creatures outdoors)	Saying (At the house centre, the block centre, or the visual arts centre): "What are you making?" "I'm making a house." "I think you should paint it blue." (A child takes on the role of parent at the dramatic play centre): "The baby is crying." "Don't cry. I'll change your diaper for you."	Responding The EL-K team places at a learning centre magnifying glasses, paper, and writing tools for sketching and documenting any observations. (Note: The children are not required to make a drawing.) Challenging "You are thinking the snow is going to melt. What makes you think that?" "You changed your mind after you heard some of the other children's ideas. Why?"

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Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	Doing (A small group of children try to predict what will happen to snow when it is taken inside): "I agree – I think it is going to melt." "Let's take pictures of it melting." Representing Children make sketches of the snow melting on their hands.	Extending The EL–K team works with the children to post their findings from the snow inquiry on the wall for the children to revisit and share with their families.
 1.3 begin to use and interpret gestures, tone of voice, and other non-verbal means to communicate and respond (e.g., respond to non-verbal directions from the teacher; vary tone of voice when dramatizing; name feelings that are expressed in facial expressions in photos or illustrations; recognize when someone is upset) 1.4 follow and provide one- and two-step directions in different contexts (e.g., in classroom routines; in music, drama, and dance activities; in outdoor play; in learning centres; in large-group activities) 	"He was really BIG." (The child uses a loud voice when reading the word "big".) "She looks really angry in the picture." "First I put on my snow pants, and then I put on my boots." Doing After following the actions that accompany a familiar song, children are invited to make up new actions. Representing A child draws a picture of herself with a big smile on her face to show her feelings when her family gets a new kitten for a pet.	Responding EL–K team members observe and create a written record of the non-verbal communication used by the children. Challenging "What other actions can we use to show the pattern in the song?" "What do we do first when we are tidying up?" Extending During a cooking experience, a member of the EL–K team models procedural writing by recording the steps to follow.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
1.5 use language in various contexts to	Saying	Responding
connect new experiences with what	"I made a sandcastle like this at the beach."	"What do you notice when we add?"
they already know (e.g., contribute	"I built a snowman with my sister like the one	"That is just like"
ideas orally during shared or interactive writing; contribute	in the story."	"You made a connection."
to conversations at learning centres;	"I noticed that if I hold the tube up higher the water	Challenging
respond to teacher prompts)	moves faster."	A member of the EL–K team works with a child on an
1 1	Doing	interactive writing piece. From previous observations, the
Professional Learning Conversations	A child changes the height of the tube after several	team member knows what letters the child knows, and uses
The EL-K team decides during a planning	attempts to make the water move faster.	prompts such as "That starts like" to help the child
meeting to ask questions that encourage	Representing	connect what he already knows to a new context.
more complex sentences, such as, "I wonder,	A child adds a letter to a familiar word during	Extending
how do you cook food in the wok?" Or "The red sari has many designs. I see things	small-group interactive writing.	EL–K team members observe the children's interest in and ideas about rain, and pose the following question to the

that shine. What do you see?" Team members

agree that they will continue to ask questions

that encourage children to express more of

their thinking.

ideas about rain, and pose the following question to the

children: "What do you think we might see after the rain?"

They record the children's ideas. The next day it is still raining.

To help children connect their previous thinking to the new

experience, team members ask the children, "What do you think we will see today?" and extend the thinking by asking,

"What makes you think that?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
1.6 use language to talk about their thinking, to reflect, and to solve problems	"I think we should try it like this." "I kept trying, and then I did it." "I put the big block on the bottom, and then it was stable." "I used the picture, and then I knew the word." Doing A child decides to find all the children in the class who have the letter "s" in their name. He uses the name wall and tells another child his plan. This leads to more children joining the investigation. Representing During a class sharing time, a small group of children share their solution for joining their structures in the block centre.	Responding "I wonder how you knew that." "Were you thinking about?" "How did you use the picture to figure out that word?" Challenging "How did you figure that out?" "What do you think would happen if?" "What sound would we expect to hear at the beginning if the word is?" Extending "What were you thinking about?" "I wonder if there is another way you could solve that problem."
1.7 use specialized vocabulary for a variety of purposes (e.g., terms for things they are building or equipment they are using)	Saying (At the block centre): "We put a roof on our house." (At the water table): "I poured the water into a funnel."	Responding EL–K team members reorganize the visual arts centre. They remove most of the materials in order to have a more "controlled palette", and they add a variety of shiny papers and recycled objects to support the children's growing understanding of the properties of different materials. Through using the materials, the children develop relevant vocabulary.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
	Doing After listening to a book about farming, a child creates a farm at the block centre. "My silo doesn't have any grain in it yet." Representing A child puts together a collage at the visual arts centre. "I used 'shiny' objects (things)."	Challenging "I heard you say you put a roof on your house. I observed the 'angle' you used on the roof." (The EL–K team member points to the angle while using the word.) Extending EL–K team members plan ways to support children's development of vocabulary. One strategy is to model new vocabulary in the context of the children's play at different centres.
1.8 ask questions for a variety of purposes (e.g., for direction, for assistance, for obtaining information, for clarification, for help in understanding something) and in different contexts (e.g., during discussions and conversations with peers and adults; before, during, and after read-aloud activities and shared reading; while making observations on a class walk; in small groups at learning centres) Professional Learning Conversations Children contribute ideas orally during shared or interactive writing, during conversations at learning centres, and in	Saying "Can you help me do this?" "Can these two pieces go here?" "What is the boy going to do now?" Doing During small-group shared reading, the children ask questions about the book the EL—K team has planned for their reading group. Representing The children are invited to write on sticky notes any questions they have about the bird's nest one of the children has brought to class.	Responding EL–K team members model different types of questions and use think-alouds to make explicit for the children the purpose for each type of question. Challenging During small-group shared reading, an EL–K team member records the children's questions about the book and posts them for the children to revisit. Extending EL–K team members invite the children to use the names in the name pocket chart or the names on a class graph to think about such questions as, "How does knowing how many children came to class today help us figure out how many children are away?"

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As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
response to prompts such as, "I wonder how you knew that" or "How did you figure that out?" EL-K team members discuss ways to build on these contributions to extend learning. One strategy is to take advantage of children's natural curiosity by recording their questions about things they want to know and ideas that interest them, then posting the questions for other children to see and think about. Another strategy is to discuss the children's explorations and invite the children to use what they have learned to answer a question.		
 1.9 describe personal experiences, using vocabulary and details appropriate to the situation 1.10 orally retell simple events and simple familiar stories in proper sequence 	Saying "I went to visit my cousin on the weekend." "I had a bad cold and a fever, but I am feeling better now."	Responding During a whole-class discussion, EL–K team members model the sequence for retelling. They take digital photographs of the children putting on their winter outdoor clothing in sequence.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
	Doing A small group of children describe and show the steps they took to roll a ball all the way down a ramp without the ball falling off the ramp. Representing At the sand table the children retell the story "The Gingerbread Man", based on a book they have just heard in a read-aloud. They use props that have been intentionally placed at the sand table by the EL–K team to retell the events they remember from the story.	Challenging EL–K team members invite the children to arrange the pictures of putting on winter outdoor clothing in proper sequence. Extending EL–K team members meet with individual children or small groups of children to write sentence strips for each picture in the sequence of "getting dressed to go outdoors in winter". (<i>Note:</i> The children are selected based on assessment information.)
1.11 demonstrate an awareness that words can rhyme, can begin or end with the same sound, and are composed of phonemes that can be manipulated to create new words	Saying "That word ends like my name." "Play' and 'day' sound the same." Doing A small group of children work at an ABC word-study centre, making and breaking apart their names. Representing A small group of children write a list of rhyming words on transparencies and project them on the overhead.	Responding A member of the EL–K team works with a small group of children who the team has determined need additional support with hearing sounds in words. This determination would be based on assessment information. Challenging An EL–K team member works with a small group of children who have demonstrated that they can hear the first sound in a word. The team member supports the children's focus on the last sounds in their names. Extending EL–K team members generate rhymes and manipulate sounds (replacing or deleting initial sounds) and words in shared, guided, and independent activities such as singing songs or chants or participating in finger plays.

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Overall Expectation 2: demonstrate understanding and critical awareness of a variety of written materials that are read by and with the EL-K team

Professional Learning Conversations

At one session in a series of professional learning sessions with a focus on early literacy, members of EL–K teams read a chapter of a professional book, discuss the key messages from the book, and agree to try some of the strategies from the book in their programs. At the next session, they discuss their observations and what happened when they tried out the strategies.

As children progress through the Full-Day Early Learning-Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
 2.1 demonstrate an interest in reading (e.g., expect to find meaning in pictures and text; choose to look at reading materials; respond to texts read by an EL-K team member; reread familiar text; confidently make attempts at reading) 2.2 identify personal preferences in reading materials (e.g., choose fiction and non-fiction books, magazines, posters, computerized interactive texts that they enjoy) in different contexts (e.g., EL-K team read-alouds, shared experiences in reading books, independent reading time) 	Saying "I like the bug books because I really like spiders." "I am making a maze. I read books about mazes all the time." "Read the book about Thomas again." Doing In the reading corner, a group of children choose books from a basket. Previously, EL—K team members have worked with the children to sort the books so the children can make informed choices. Representing In the dramatic play centre, a group of children role-play characters from a book they have just heard in a read-aloud.	Responding EL–K team members document what books the children are choosing in order to gather more books they will be interested in reading. Challenging EL–K team members model sharing their individual reading preferences for the children. Extending EL–K team members plan discussions focused on "how to choose a good book for yourself" (e.g., by looking at the front cover and the illustrations).

As ch	cific Expectations hildren progress through the Full-Day y Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
2.3	demonstrate an awareness of basic book conventions and concepts of print when a text is read aloud or when they are beginning to read print (e.g., start at the beginning of the book; recognize that print uses letters, words, spaces between words, and sentences; understand that printed materials contain messages)	"That is the title of the book." "I know that letter." "Look, I remembered the finger space [between words]." Doing Children hold books the right way up, use a finger to demonstrate left to right directionality, and attempt to read the story. They begin to recognize the difference between letters and words. They may follow the print for the class, using a finger or a pointer, as a story is read aloud during shared reading. Representing Children write random strings of letters and begin to leave a space between "words".	Responding To help children develop basic concepts of print, EL–K team members model print concepts during shared reading and modelled and interactive writing, asking questions such as, "Where do we start to read?" Challenging EL–K team members place erasable highlighters beside laminated class charts so that children can highlight familiar words. Extending EL–K team members create sentence strips and individual word cards for the children to use in reconstructing the texts of familiar class poems.
2.4	respond to a variety of materials read aloud to them (e.g., paint, draw, or construct models of characters or settings)	Saying "My grandpa and I collected rocks and we made an Inukshuk like the one in the book." "I live in an apartment, too, just like the family in the book."	Responding After reading a book about a forest, EL–K team members ask questions such as, "How do you think the author feels about forests? How do you think the author wants us to feel about forests? Why do you think there are photographs instead of illustrations in the book?"

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Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
	Doing A small group of children decide to make an alphabet book using their names. They use digital photographs to make it look like a book in their classroom library. Representing After focusing on the comprehension strategy of visualization, the children share their images, using words, movement, and/or graphic representation.	Challenging After reading a book about a social issue relevant to the class, EL–K team members ask questions such as, "Who is this book written for? Who is telling the story? How would this story be different if another person or character told the story?" Extending Visualization is a comprehension strategy that is quite abstract for young children but is one way to support understanding of text. For several days the EL–K team focuses on having children practise the strategy of visualizing or making mental pictures in their minds. In order to make this abstract strategy more concrete, EL–K team members plan for the children to practise visualization on a rainy day. After guiding the children's observations of a rainy day, the EL–K team then asks the children to close their eyes and "paint" a picture in their heads of what they have seen. The children share their "pictures" orally. Several days later, the EL–K team reads aloud a poem about the rain, building on the children's prior knowledge to get deeper meaning from the poem.

As ch	cific Expectations bildren progress through the Full-Day	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
Early	Learning–Kindergarten program, they:		
2.5	make predictions regarding an unfamiliar text that is read by and with the EL–K team, using prior experience, knowledge of familiar texts, and general knowledge of the world around them (e.g., use the cover pictures and/or title to determine the topic and/or text form)	"I think it is going to be about a party because there are balloons on the cover." "I think the baby is going to cry because babies cry when they are hungry." Doing A child works on making predictions with additional support from a member of the EL–K team. Representing A small group of children record a written response to the questions of the day (posted by the EL–K team): "Do you think it will rain tomorrow? What makes you think that?"	Responding "What do you think might happen in the book? How did you figure that out?" Challenging "What in the book makes you think that?" "What does the picture tell us about what might happen in the book?" "What clues did you use to try and figure that out?" Extending "What words do you think might be in this book?" "What do you know about birds that will help you read this book?"
2.6	use prior knowledge to make connections (e.g., to new experiences, to other books, to events in the world) to help them understand a diverse range of materials read by and with the EL–K team	Saying "I live in an apartment, too." "That's just like the other book we read." "That book is just like the movie I saw."	Responding EL–K team members model the use of think-alouds to make explicit the reading strategy of using prior knowledge to make connections.

Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	Doing During an outdoor inquiry, children use their prior knowledge from investigating shadows (e.g., that shadows move when you move) to investigate what happens to shadows when they sit down. Representing A child creates a painting of a snowball melting in her pocket in imitation of an episode in a story she has read.	Challenging "What does that remind you of?" "What in the book made you think that?" "You built the structure just like in the book." "I wonder if you could make other structures just like in the book." Extending EL—K team members support the children as they take digital pictures of their shadow inquiry. The pictures will help them make connections when they revisit the inquiry indoors.
2.7 use illustrations to support comprehension of texts that are read by and with the EL–K team	"It is in a park, because look at the swings." "I think they are going to play in the snow because they are wearing snowsuits." "I thought it said 'train', but the picture is a truck." Doing A small group of children, with support from a member of the EL–K team, reread a familiar text, using the illustrations to help their comprehension. Representing A child makes pictures to illustrate a book he has made about the school.	Responding EL–K team members model for the children how they can use the illustrations to help them understand what is happening in the text and figure out words they don't know. Challenging "What do you think the word will be under the sticky note? How can you use the picture to help you figure it out?" Extending EL–K team members introduce the use of pictures/ photographs to support comprehension of a non-fiction text.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
2.8 demonstrate knowledge of most letters of the alphabet in different contexts (e.g., use a variety of capital and lower-case manipulative letters in letter play; identify letters by name on signs and labels in chart stories, in poems, in big books, on traffic signs; identify the sound that is represented by a letter; identify a word that begins with the letter)	Saying "It is a 'T'. It starts just like my name." "It makes a 'j' sound." "I know it is a 'd' because it has a ball and a stick." "I see a 'b' like the one in 'book'." Doing After shared reading of some alphabet books, EL–K team members help children create an alphabet book, using the children's names and pictures of objects in the classroom to represent the letters. Representing Two children work at a whiteboard with magnetic letters. They sort and compare the letters.	Responding EL-K team members place a pocket chart holding the children's name cards beside the magnetic letters and whiteboard, so the children can use the names as a reference. Challenging "If the word is 'boy', what will the first letter be?" "If the word is 'snow', what is the first sound? What sound do you hear at the end of the word?" (Note: The EL-K team poses the questions based on assessment information.) Extending EL-K team members put the name wall words on Velcro so the children can sort the words by first letter. As the year progresses they add some high-frequency words.

Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
 2.9 retell stories, in proper sequence, that have been read by and with the EL–K team, using pictures in the book and/or props (e.g., use props such as finger puppets or flannel-board characters; use plastic models at the sand table to tell the story "The Gingerbread Man") 2.10 retell information from non-fiction materials that have been read by and with the EL–K team in a variety of contexts (e.g., read-alouds, shared reading experiences), using pictures and/or props 	"Humpty Dumpty was sitting on a wall and he fell down. The king and his men tried to help him but he was too broken and they couldn't fix him. The end." Doing Using digital photographs of the life cycle of the class butterflies, a child orally retells the sequence: "First the butterfly is an egg, and then it turns into a caterpillar. The caterpillar spins a chrysalis, and then it's a beautiful butterfly." Representing A small group of children videotape the life cycle of the butterfly for future viewing and discussion.	Responding EL–K team members model the use of pictures and words to retell a familiar experience such as brushing teeth, washing hands, or tidying up the sand. Challenging EL–K team members model retelling a fiction text, using the illustrations and words. Extending EL–K team members model retelling a non-fiction text, using the photographs and words.

Overall Expectation 3: use reading strategies that are appropriate for beginning readers in order to make sense of a variety of written materials

Professional Learning Conversations

Following up on feedback from a meeting with parents, EL-K team members decide to send home a couple of the questions they use when reading with children to help children comprehend the text. They ask some parents to help by translating the following questions into the home language: "What do you think might happen in the book?" "How did you figure that out?" "What does this book remind you of?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
3.1 begin to use reading strategies to make sense of unfamiliar texts in print (e.g., use pictures; use knowledge of oral language structures, of a few high-frequency words, and/or of sound-symbol relationships)	"I knew it was a spider 'cause I used the picture." "I know that says 'the'." "I made my voice loud here because it gets dark [pointing at the bold print]." Doing During independent reading, a child points to the words, looks at the pictures, and rereads after a miscue. Representing A group of children decide to make the dramatic play centre into a bookstore.	Responding EL—K team members scaffold the children's application of reading strategies by thinking aloud and asking questions such as: "Let's do a picture walk of the book." "I noticed you looked at the pictures." "What makes you think that?" Challenging "If you think the word is 'jump', what letter will we see at the beginning when we lift the sticky note?" Extending Assessment information reveals that a small group of children know a number of high-frequency words, have letter and sound knowledge, and are able to read simple patterned text. EL—K team members determine that this group of children would benefit from a guided reading lesson using a non-fiction text.

Overall Expectation 4: communicate in writing, using strategies that are appropriate for beginners

Professional Learning Conversations

The EL–K team posts the stages of picture making and the stages of writing at the writing centre and on the Family Information Board. At subsequent family conferences, the team members partner with family members to determine how the stages of picture making and writing are exemplified in the samples of their children's work, and together they discuss the child's progress. At their drop-in coffee mornings, several parents comment that talking about the stages of picture making and writing has helped them understand their child's learning process.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
 4.1 demonstrate an interest in writing (e.g., choose a variety of writing materials, such as adhesive notes, labels, envelopes, coloured paper, markers, crayons, pencils) and choose to write in a variety of contexts (e.g., draw or record ideas at learning centres) 4.2 demonstrate an awareness that writing can convey ideas or messages (e.g., ask the teacher to write out new words for them) 	"What does that say?" "What does it mean?" "I want to write a note to my friend." Doing A child notices the question "How many scoops?" posted at the sand table by an EL–K team member. The child begins to count the scoops. Representing A child writes a sign at the dramatic play centre to show what movie is playing at the theatre.	Assessment information reveals that a small group of children are beginning to show an interest in labelling their pictures. An EL–K team member meets with the children to support their efforts. Challenging "You noticed the question I wrote at the sand table. What did you find out?" Extending EL–K team members invite the children to make additional signs for the movie theatre at the dramatic play centre.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's	
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions	
4.3 write simple messages (e.g., a grocery list on unlined paper, a greeting card made on a computer; labels for a block or sand construction), using a combination of pictures, symbols, knowledge of the correspondence between letters and sounds (phonics), and familiar words	"This is a word in my language." "I used the name wall to help me write [the word]." "I wrote 'CLOSED' on the bookstore." Doing Children write letters at the post office centre, make signs at the block centre, record their findings at the water centre, make a list of classmates' names at the dramatic play centre, make greeting cards at the visual arts centre, and create stories in writing or pictures at the writing centre or painting centre. Representing A child who is reluctant to write at the writing centre draws a labelled picture of his block structure in the block centre. A child who is learning English writes labels for her picture in her home language.	Responding To support children's use of written communication in many contexts, EL–K team members post signs children have written in their home languages. Challenging An EL–K team member is sitting beside a child who is writing a description of her inquiry about making a ball roll faster down the ramp. To support the child in hearing and recording sounds, the team member uses prompts such as: "Stretch the word and listen to the sounds." "What sound do you hear at the beginning (middle, end) of that word?" "It starts like your name." Extending EL–K team members work with each child to select writing/drawing/painting samples for the child's portfolio. They have portfolio conferences with the children to discuss what the children notice about their development as writers.	
4.4 begin to use classroom resources to support their writing (e.g., a classroom word wall that is made up of children's names, words from simple patterned texts, and words used repeatedly in shared or interactive writing experiences; signs or charts in the classroom; picture dictionaries; alphabet cards; books)	Saying "I know – I can use the name wall." "That is the same as a word from the book." "I know this is how you write it because I saw it on the card."	Responding EL–K team members place photographs of the children beside their names on the name wall. In addition they place class lists at several centres as a resource for children's writing.	

Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	Doing While playing with blocks, a group of children decide they need a secret password for their structure. To write the password, they use the name wall to help them figure out the letters for the words they want to write. Representing A small group of children make their own list of names, modelled after a class list. They use the list at the restaurant in the dramatic play centre.	Challenging "What could you use to help you figure out how to write the word?" Extending EL—K team members put words from the word wall on binder rings so they are portable and children can use them at various places in the room.
 4.5 experiment with a variety of simple writing forms for different purposes and in a variety of contexts 4.6 communicate ideas about personal experiences and/or familiar stories, and experiment with personal voice in their writing (e.g., make a story map of "The Three Little Pigs" and retell the story individually to an EL–K team member during a writing conference) 	Saying "Let's make a list." "I am writing an invitation to my party." "I put these labels on my drawing of my structure." Doing A child in the dramatic play centre decides to create an appointment book for the doctor's office. The child also writes appointment cards for the "patients". Representing A child makes a drawing of a day at the park and retells his experiences orally to her classmates.	Responding An EL–K team member observes that children in the dramatic play centre are making an appointment book and writing appointments in it. The team member joins the play and prompts the children to include the sounds they hear in the words. Challenging An EL–K team member works at a writing centre with a small group of children who are designing a mailbox similar to one they have seen outside. A child shows the team member a page with some writing on it and says, "I think someone wrote me a note but I don't know who." The team member challenges the child by saying, "I wonder how you could find out?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
		Extending After the children have been to see a community theatre production, EL–K team members model using a new writing form – a letter to the actors.

Overall Expectation 5: demonstrate a beginning understanding and critical awareness of media texts

Professional Learning Conversations

During a staff meeting, the EL-K team decides to critically assess the media materials in the classroom for relevance and possible bias.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
 5.1 begin to respond critically to animated works (e.g., cartoons in which animals talk, movies in which animals go to school) 5.2 communicate their ideas verbally and non-verbally about a variety of media materials (e.g., describe their feelings in response to seeing a DVD or a video; dramatize messages from a safety video or poster; paint pictures in response to an advertisement or CD) 	"I learned that they put toys in cereal boxes because they want kids to buy them." Doing A small group of children use the props at a retelling centre to dramatize a story they have just heard about children being prejudiced. Representing A small group of children make signs about how to be safe on the school bus.	Responding To help children develop strategies for reflecting on media texts, EL–K team members ask questions such as: "Why did people make this cartoon?" "Who likes to watch cartoons or animated works?" "What is it about this cartoon that makes you want to watch it?" Challenging "Sometimes you buy cereal and there are toys in the box. Why do you think the people who made the cereal put the toys in there?" Extending "Someone made this poster. What did they want us to see? Why?"

MATHEMATICS

OVERVIEW

Building on Prior Knowledge and Experience

Mathematics in the Full-Day Early Learning–Kindergarten program builds on children's desire to make sense of their world, and helps them develop and demonstrate their mathematical understanding. Young children use mathematics intuitively and develop their understanding of mathematics through their individual approaches to learning, as well as through their prior experience of their linguistic, family, cultural, and community backgrounds. It is therefore important that children's existing conceptual understanding of mathematics be valued and that children be introduced to mathematical concepts in an appropriate manner and at an appropriate time in their development. Children also 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).¹⁰

Providing Rich Problems and Connections to Real Life

Problem solving and reasoning that involve the "big ideas" of mathematics are the foundations of mathematics in Full-Day Early Learning—Kindergarten classrooms. Rich mathematical problems involve important mathematical ideas and arise out of real-life situations, and can be approached in a variety of ways so that all children can be involved in exploring solutions. Solving such mathematical problems requires persistence, since they do not have one easy-to-find correct

answer. Through active participation in mathematics investigations, including problem solving and discussions, children develop their ability to use mathematics as a way of making sense out of their daily experiences.

Providing Balanced Mathematics Instruction

The expectations for mathematics cover the following categories:

- Number Sense and Numeration (quantity relationships; counting; operational sense)
- Measurement (attributes, units, and measurement sense; measurement relationships)
- Geometry and Spatial Sense (geometric properties; geometric relationships; location and movement)
- Patterning (patterns and relationships)
- Data Management and Probability (collection and organization of data; data relationships; probability)

To ensure continuity with the mathematics curriculum for Grades 1 to 8, the above categories are largely the same as the strand titles in *The Ontario Curriculum, Grades 1–8: Mathematics, 2005*. The text in parentheses, which indicates the subtopics in each category, is also largely the same as the headings for the subgroupings of the specific expectations for Grades 1 to 8. (The only differences are in Patterning.)

^{10.} Adapted from Early Math Strategy: The Report of the Expert Panel on Early Math in Ontario (Toronto: Ministry of Education, Ontario, 2003), pp. 7–9.

^{11.} Further information on the "big ideas" can be found in the introductory sections of Ministry of Education, Ontario, A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3: Number Sense and Numeration, 2003, and Geometry and Spatial Sense, 2005.

In addition to the expectations in each of these categories, a list of seven "mathematical processes" is provided (see pages 46-47). These processes, which are also the same as the processes given in the curriculum policy document for Grades 1 to 8, are essential to the effective study of mathematics. Children need to learn and apply them in every aspect of their exploration of mathematical concepts. When developing their Full-Day Early Learning-Kindergarten mathematics program from this document, Early Learning-Kindergarten (EL-K) teams* are expected to weave together the mathematical processes and related expectations from the five mathematics categories, as well as relevant expectations from other areas of learning (e.g., science and technology, language, the arts). It is important that the study of various aspects of everyday life should permeate young children's mathematical experiences.

In several expectations in Number Sense and Numeration, key concepts of counting¹² are introduced either as the focus for the expectation ("movement is magnitude" [quantity], "one-to-one correspondence", "stable order", and "order irrelevance") or in examples ("conservation", "cardinality", and "abstraction"). The key concepts of counting are interrelated, and are not necessarily developed in a linear fashion – for example, a child might learn some aspects of one concept, move on to another concept, and then return to work on other aspects of the first concept. Children demonstrate their understanding of these counting concepts in all five areas of mathematics - for example, a child might demonstrate his or her understanding of one-to-one correspondence while analysing data on a graph made by the class.

On the basis of what we know about young children's learning, mathematics in the early years must be active, hands-on, child-centred, and problem-based. Concrete materials provide children with tactile experiences to help them explore and describe mathematical problems and solutions. Questioning is a very important aspect of mathematics in the Full-Day Early Learning-Kindergarten program. EL-K teams should provide models of a range of question types to promote problem solving and to probe and challenge children's mathematical thinking and reasoning. These teams should also create an environment in which children are encouraged to pose mathematical questions, explore, and investigate. It is important that good questioning be interwoven throughout the Full-Day Early Learning-Kindergarten program and that children's literature, music, or art work be used as starting points for mathematics activities. 13 Reading books aloud and in shared reading contexts provides real links between literature and mathematical ideas, since some stories use mathematical terminology and/or contain illustrations of mathematical concepts. Reading can also give children a sense of how mathematics is connected with other aspects of life, such as science and the arts. Children should therefore be given many opportunities to demonstrate their understanding in a variety of ways - for example, by constructing concrete models, by describing their understanding in their first language, and/or by making drawings to illustrate a mathematical concept.

EL-K teams should provide children with planned opportunities every day to develop their mathematical understanding by incorporating high-quality investigative learning experiences that involve the use of mathematics manipulatives. These teams can introduce mathematical concepts, strategies, and vocabulary in carefully planned hands-on activities at various learning centres in the classroom and can provide children with opportunities to explore mathematical concepts

^{* &}quot;Early Learning–Kindergarten team" refers to the Kindergarten teacher and the early childhood educator(s) in a Full-Day Early Learning-Kindergarten classroom. The abbreviation "EL-K team" will be used throughout the remainder of the text and in the chart in this section.

^{12.} Key concepts are described in A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3: Number Sense and Numeration, pp. 7-8.

^{13.} Adapted from Early Math Strategy: The Report of the Expert Panel on Early Math in Ontario, p. 24.

and strategies in a wide variety of ways. Opportunities can be found daily to encourage children to reflect on and extend their understanding of mathematics as it occurs in their everyday activities, play, and conversations. Children should also be provided with ready access to a wide range of concrete materials, such as found objects, commercial products, tools, and equipment, so that they can develop a beginning understanding of how to use various materials to explore mathematical concepts.

It is important for young children to see themselves as mathematicians as they investigate their world. Children need time to practise and consolidate their learning through mathematical investigations that take place through free exploration, focused exploration, and guided activity. They also need time to reflect and to make connections. Developing a positive attitude towards mathematics and the ability to persevere in solving problems will have a significant impact on children's future success.

For further information on early mathematics instruction, teachers may wish to consult the following resource documents published by the ministry:

- Early Math Strategy: The Report of the Expert Panel on Early Math in Ontario, 2003
- A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3, 2004
- A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3: Number Sense and Numeration, 2003
- A Guide to Effective Instruction in Mathematics, Kindergarten to Grade 3: Geometry and Spatial Sense, 2005
- Helping Your Child Learn About Math, 2003

THE MATHEMATICAL PROCESSES FOR EARLY LEARNERS

The seven mathematical processes that are provided below are to be integrated into children's learning associated with all of the Full-Day Early Learning–Kindergarten mathematics expectations. The need to highlight these processes arose from the recognition that children should be actively engaged in applying them *throughout* the mathematics program, rather than only in connection with particular groups of expectations (e.g., expectations for number sense and numeration, measurement, or geometry and spatial sense).

The mathematical processes that support effective learning in mathematics are as follows:

- problem solving
- reasoning and proving
- reflecting
- selecting tools and strategies
- connecting
- representing
- communicating

Mathematical Processes	Suggestions for Teachers
Problem Solving Children begin to develop and apply problem-solving strategies, and persevere when solving problems and conducting mathematical investigations.	Teachers can provide models for problem solving. As children investigate possible solutions, they begin to develop an understanding that there is often more than one way to solve a problem and that problems can be solved in collaboration with others. Teachers provide opportunities for children to highlight and describe the various ways they solved the problem.
Reasoning and Proving Children apply developing reasoning skills (e.g., pattern recognition, classification) to create and investigate possibilities (e.g., through talk and through models provided by the teacher and sometimes by other children).	Teachers can observe each child's own mathematical strategies, and pose questions that reveal the child's thinking (e.g., "How did you decide to?" "How did you know what came next in the pattern?" "What do you think will happen? How can you show me?" "Does anyone else have an idea?"). Teachers use their observations to plan and adapt instruction.
Reflecting Children demonstrate that they are reflecting on and monitoring their thinking to help clarify their understanding as they complete an investigation or solve a problem (e.g., explain to others how they solved their problem).	Teachers provide models of reflective statements and questions to help the children deepen their understanding (e.g., "How many different ways did we?" "How many more do you think we need now?" "You have a good start with this pattern. Is there another way you could?" "Would looking at Nancy's pattern help?" "What could you do to?").
Selecting Tools and Strategies Children select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems.	Teachers observe how children select and use materials so that they can plan and adapt instruction. Teachers provide the children with models of different ways to use a variety of tools and strategies (e.g., strategies for counting). Teachers provide children with opportunities to share the different ways they use tools and strategies.
Connecting Children begin to make connections among mathematical concepts and notice examples of mathematics in their everyday life.	The mathematical experiences for young children build largely upon the natural relationships between play and learning in their daily activities, questions, and interests. Teachers facilitate mathematical thinking in various ways (e.g., at the dramatic play centre: "How many people will be at your lunch? How many plates will you need?"; at the block centre: "How is your building big – is it tall or is it wide?"; during time with the whole class: "We are going to make a class book about all the places where we use numbers.").

Mathematical Processes	Suggestions for Teachers
Representing Children create basic representations of simple mathematical ideas (e.g., use concrete materials; physical actions, such as hopping or clapping; pictures; numbers; diagrams; dramatization; invented symbols), make connections among them, and apply them to solve problems.	Teachers make explicit to children that there are many ways to represent mathematical ideas in order to help the children develop flexibility in thinking about ways of representing ideas. Teachers can do that by providing models, thinking aloud (e.g., "I can't draw this many people. How else could we keep track of them?"), and describing children's representations (e.g., "You used 2 cubes on this plate and 3 cubes on that plate to make 5 cubes.").
Communicating Children communicate mathematical thinking orally and visually, using everyday language, an emerging mathematical vocabulary, and a variety of representations (e.g., constructions, pictures, dramatizations).	Teachers provide models for using mathematical language, questioning, extending thinking, clarifying processes, and building vocabulary (e.g., "How did you know that this plate has more carrots?" "Can you show me how you figured that out?" "How can you prove that?" "What shapes did you use to paint your picture?").

These mathematical processes can be seen as the processes through which children acquire and apply mathematical knowledge and skills. These processes are interconnected. Also, problem solving and communicating have strong links to all the other processes. A problem-solving approach encourages children to reason their way to a solution or a new understanding. The communication and reflection that occur during and after the process of problem solving help children see the problem they are solving from different perspectives. Knowledge gained from engagement in all of these processes helps children begin to recognize the range of strategies that can be used to arrive at a solution. By seeing how others solve a problem, children can begin to reflect on their own thinking (a process known as "metacognition") and the thinking of others.

Letters identifying the various mathematical categories are provided with the expectation numbers in the charts below, as follows:

NS – number sense and numeration; **P** – patterning;

M – measurement; DM – data management

G – geometry and spatial sense; and probability.

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- NS1. demonstrate an understanding of numbers, using concrete materials to explore and investigate counting, quantity, and number relationships;
- M2. measure and compare length, mass, capacity, area, and temperature of objects/materials, and the passage of time, using non-standard and standard units, through free exploration, focused exploration, and guided activity;
- describe, sort, classify, build, and compare two-dimensional shapes and three-dimensional figures, and describe the location and movement of objects through investigation;
- explore, recognize, describe, and create patterns, using a variety of materials in different contexts;
- DM5. sort, classify, and display a variety of concrete objects, collect data, begin to read and describe displays of data, and begin to explore the concept of probability in everyday contexts.

Overall Expectation NS1: demonstrate an understanding of numbers, using concrete materials to explore and investigate counting, quantity, and number relationships

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning (Note: Children are not required to demonstrate their learning in all three ways.)	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
NS1.1 investigate (e.g., using a number line, a hundreds carpet, a board game with numbered squares) the idea that quantity is greater when counting forward and less when counting backwards	"Every time I add a block, my building gets taller." "We need 3 more blocks to finish the base." "When I go forward, the numbers get bigger. When I go backwards they get smaller." Doing Children use manipulatives to move forward and backwards along a number line and use their bodies to move around on a hundreds carpet.	Responding "What happens when we move up the number line? How do you know? What about when we move backwards on the number line? How do you know?" Challenging An EL–K team member creates a large number line on the floor of the classroom and asks individual children to stand beside different numbers. The team member calls a new number and challenges the children to predict whether they

Big Idea: Young children have a conceptual understanding of mathematics and of mathematical thinking and reasoning.

As children progress through the Full-Day	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions	
Professional Learning Conversations Following a professional session on learning strategies, the Early Learning–Kindergarten team decides to meet regularly to discuss the effectiveness of strategies to support children's understanding of quantity relationships. After discussing their observations on the counting strategies used by the children, team members decide to use a story problem to help children enhance their understanding of numbers and quantity. The team will encourage the children to use the phrase "How many?" to create stories that illustrate how quantity increases and decreases as numbers change.	Representing A child draws a number line based on the model used in the classroom and puts sticky notes on numbers that represents a quantity less than 4, greater than 8, and so on.	will have to move forward or backwards from the current position to get to the new number. The children then test their prediction by moving up or down the line to the new number. "If you are standing at 9 and move to 6, what happens to the number?" Extending The EL–K team returns to the story problem to extend the children's learning: "In our story, one more duck went into the pond. How many ducks are in the pond now? How do you know? Show me how you figured that out."	
NS1.2 investigate some concepts of quantity through identifying and comparing sets with more, fewer, or the same number of objects (e.g., find out which of two cups contains more or fewer beans, using counters; investigate the ideas of more, less, or the same, using five	Saying "Let's count the cars. I have 6 and you have 5. That means I have 1 more. Let's get another one so we can have the same." "You counted 35 buttons. I go even higher. I can count 40 buttons."	Responding "How many marbles have you got in your hand? Let's count." Challenging "How many marbles do you think will fit in my hand? Do you think it will be more or fewer than you have in your hand? How could we find out?"	

Specifi	c Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's
	dren progress through the Full-Day earning–Kindergarten program, they:	Their Learning	Intentional Interactions
	and ten frames; recognize that the last number counted represents the number of objects in the set [concept of cardinality])	Children compare two sets of objects that have the same number of items. In one set, the items are in a neat stack; in the other, they are widely spaced. The children investigate the two sets and recognize that both have the same number of items (concept of conservation). Representing A small group of children clap or jump to represent quantity relationships: "I clapped 3 times. It's your turn. You clap 4 more times than me." "You jumped 8 times. I jumped 4 times. I jumped 4 less than you."	Extending "This stack of large blocks is bigger than that stack of small ones. Which stack has the most blocks? Show me how you figured that out."
NS1.3	begin to make use of one-to-one correspondence in counting objects and matching groups of objects (e.g., one napkin for each of the people at the table)	Saying "I counted 5 children. I need 5 pieces of apple – one for each child." Doing At the dramatic play centre, a child counts out placemats, one for each child seated at the table.	Responding The EL-K team models order irrelevance by counting a set of cars several times, each time starting the count at a different point in the set. "What do you notice about how I am counting the cars? I am going to count them again. What do you notice this time?"

Specif	ic Expectations	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	dren progress through the Full-Day Learning–Kindergarten program, they:		
NS1.4	demonstrate understanding of the counting concepts of stable order (i.e., the concept that the counting sequence is always the same – 1 is followed by 2, 2 by 3, and so on) and of order irrelevance (i.e., the concept that the number of objects in a set will be the same regardless of which object is used to begin the counting)	Representing A child is pointing to the pieces of apple on a plate while counting. Although the child points to a piece of apple more than once, the numbers are still stated in the proper sequence (i.e., 1, 2, 3, 4,) [concept of stable order].	Challenging "There are 3 children in our group now. Three more children want to join. I wonder how many more chairs we will need." Extending A member of the EL-K team places apple slices on a plate. "I notice that you helped to line up the placemats so that there was one placemat for each child at the table. Now how many apple slices will you need so that everyone has a piece? How did you figure that out?"
NS1.5	recognize some quantities without having to count, using a variety of tools (e.g., dominoes, dot plates, dice, number of fingers) or strategies (e.g., composing or decomposing numbers, subitizing) begin to use information to estimate the number in a small set (e.g., apply knowledge of quantity, use a common reference such as a five frame)	Saying "I know there are 5 buttons here because they look like the 5 on the dice in my game." "It's 5. I saw 4 red and 1 blue." "I think it will take 3 scoops to fill the pail." "I know that is not 100. A hundred is a lot and this is only a little bit." Doing A child works with a five frame, filling the frame with different objects. He tells another child that he knows he has 4 buttons because one of the spaces in the frame is empty.	Responding "How did you know there were 5 buttons?" "How many sticks do you think there are? How do you know that?" Challenging "Why do you think there are more than 5 buttons in this set? How can you show that using a five frame?" Extending After some children had estimated the number of small scoops it would take to fill a container at the sand table, an EL–K team member changed the size of the scoop so the children could use their prior knowledge to make a new estimate.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	Representing Some children use sticky notes to record their estimate of how many small scoops it would take to fill a container at the sand table.	
NS1.7 demonstrate an understanding of number relationships for numbers from 0 to 10, through investigation (e.g., show small quantities using fingers or manipulatives) NS1.8 use ordinal numbers in a variety of everyday contexts (e.g., line up toys and manipulatives, and identify the first, second, and so on; after reading a book, respond to the EL-K team's questions about who was the first or third person to come in the door) NS1.9 use, read, and represent whole numbers to 10 in a variety of meaningful contexts (e.g., use a hundreds chart to read whole numbers; use magnetic and sandpaper numerals to represent the number of objects in a set; put the house number on a house built at the block centre; find	"I know there are 7 counters because all of the ten frame is full except for 3 spaces." "I know there are 7 counters because all of the five frame is full and there are 2 left over." "I am 5 years old." (Pointing to a number in a book) "That is a 6. There are 6 frogs on the log." "I am fourth in line." "This is a toonie. I can use it to buy more stuff than a loonie." Doing A group of children create an ordinal numbers game. Using sticky notes, they place a different number, from 1 to 10, on the back of each child in the group and then form a line. One child then organizes the children, placing them in order based on the numbers on their backs.	"Show me 3. Show me 7. Show me 10." "What comes in fives?" "Who was the third person to come to school today?" Challenging Members of the EL–K team join the play at the dramatic play centre. "This detergent costs \$4.00. I'm looking for something less expensive." Extending An EL–K team member has created number cards to fit into a pocket chart that contains cards with the children's names on them. The team member invites each of the children to take a number card and place it in the pocket that contains their name. The children are then asked to discuss who is third, who is seventh, and so on.

Specifi	c Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
	dren progress through the Full-Day earning–Kindergarten program, they:	Their Learning	Intentional Interactions
NS1.10	and recognize numbers in the environment; write numerals on imaginary bills at the restaurant at the dramatic play centre) explore different Canadian coins, using coin manipulatives (e.g., role-play the purchasing of items at the store at the dramatic play centre; determine which coins will purchase more — a loonie or a quarter)	Representing At the dramatic play centre, a group of children set up a grocery store, pricing the items by writing numerals on them. Other children shop for items and then use coin manipulatives to purchase them.	
	investigate and develop strategies for composing and decomposing quantities to 10 (e.g., use manipulatives or "shake and spill" activities) investigate addition and subtraction in everyday activities through the use of manipulatives (e.g., interlocking cubes), visual models (e.g., a number line, tally marks, a hundreds carpet), or oral exploration (e.g., dramatizing of songs)	"I only have 3 wheels for my car. I need 1 more to make 4." "There are 5 people at the snow table but we only have 3 scoops. We need 2 more scoops." Doing Some children represent the quantity of 8 by counting 1 through 8 using their fingers. Other children put up one hand, count from 1 to 5 using each finger, pause, and then continue to count to 8 using three more fingers. Still others put up all five fingers of one hand at once and say "Five" then count on, using three more fingers and saying "Six, 7, 8. There are 8."	Responding The EL team models different strategies for composing and decomposing numbers using manipulatives, five frames, ten frames, and story problems, asking question such as, "If the five frame is full, and you remove three buttons, how many buttons are left?" Challenging "How else could we show that?" "How did you figure that out?" "How many more do you think we need?" "How many do we have now?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	Representing Children represent the quantity of 7 using 4 cubes on one plate and 3 on another or 7 tally marks, or by putting up all five fingers of one hand and saying "Five", and then counting two more fingers on the other hand.	Extending A member of the EL–K team puts out five bear counters so that children can use them to make up a new version of the story of the three bears. "How many ducks are in the pond now? How do you know?" "How many people had an apple for lunch? How do you know?"

Overall Expectation M2: measure and compare length, mass, capacity, area, and temperature of objects/materials, and the passage of time, using non-standard and standard units, through free exploration, focused exploration, and guided activity

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
M2.1 compare and order two or more objects according to an appropriate measure (e.g., length, mass, area, temperature, capacity) and use measurement terms (e.g., hot/cold for temperature, small/medium/ large for capacity, longer/shorter or thicker/thinner for length)	Saying "I lined the blocks up from shortest to tallest." "This book is heavier than 10 cubes." "We used 5 papers to cover the small table. It took us 15 papers to cover the big table."	Responding To help children recognize that objects have measurable properties, the EL–K team member asks questions such as: "What else is as tall as this block?" "Does this water feel warmer or colder than your hand?" "How much does this book weigh? Do you think it weighs more than two wooden blocks?"

Members of the EL–K team meet to analyse their observations of children's play at the water table. The children have been beginning to explore the concept of capacity by filling containers with water. During discussions, team members agree that

Specific Expectations Making Connections: Making Connections: Early Learning-Kindergarten (EL-K) Team's Ways in Which Children Might Demonstrate Intentional Interactions Their Learning As children progress through the Full-Day Early Learning-Kindergarten program, they: demonstrate, through investigation, Doing Challenging M2.2 an awareness of non-standard A group of children use footsteps to measure the "Which do you think is bigger, the height or the width measuring devices (e.g., feet, hand classroom. Some measure the distance from the front of your building? How can you tell if you are right?" spans, string, or cubes to measure to the back of the classroom while others measure the Extending length; hand claps to measure distance from one side of the classroom to the other. "The scales say that the large wood block is heavier than time; scoops of water or sand to The children then get together to compare their results. two small blocks. I wonder what you could do to make measure capacity) and standard Representing the scales balance." measuring devices (e.g., measuring A child shows the height of a structure she has built cups at the water and sand centre, by pointing to where it reaches on her body, saying, balance scales at the block centre) "I am taller than my castle. It comes up to here." and strategies for using them (e.g., place common objects end to end to measure the length of the classroom; use cubes to plan the length of a road at the sand table or the block centre; use footsteps to measure the distance between the door and the sink) **Professional Learning Conversations**

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:		Intentional Interactions
the materials at the centre are critical to challenging and extending the children's understanding of capacity. They decide to remove sea creatures and boats that are not relevant to the investigation of capacity and to replace them with different types of containers (e.g., containers of different shapes, heights, widths, and so on).		
M2.3 demonstrate, through investigation, a beginning understanding of non-standard units that are the same type (e.g., straws, paper clips) but not always the same size	Saying "Let's see how long this ramp is." "When you use your feet it's different than mine!" "I used the paper clips to see how long the book is. It's 8 paper clips long." Doing Children are curious about how tall their plants have grown and measure their height using various objects, including linking blocks. Representing The children place paper alongside their plants and make marks on the paper to show how tall their plants have grown.	Responding "How many blocks make up the length of your foot?" "How many hand spans wide is this table?" Challenging "We need to see if the blocks will fit in this space. How could we figure that out?" Extending "I wonder why when I measure with my feet and you measure with your feet we get a different number (measurement)."

Overall Expectation G3: describe, sort, classify, build, and compare two-dimensional shapes and three-dimensional figures, and describe the location and movement of objects through investigation

Professional Learning Conversations

The EL-K team plans to observe children who are building with blocks, to support their development of perspective. The team members discuss the kinds of questions they might ask when working with the children such as, "What do you see when you look from this side?" They want to ensure that the children have opportunities to identify, compare, and discuss shapes from different points of view.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
G3.1 explore, sort, and compare traditional and non-traditional two-dimensional shapes and three-dimensional figures (e.g., compare equilateral triangles with triangles that are not equilateral; sort different sizes of boxes, attribute blocks, pattern blocks, a variety of triangles, shapes with three curved sides, objects that create an open shape with three lines) G3.2 identify and describe, using common geometric terms, two-dimensional shapes (e.g., triangle) and three-dimensional figures (e.g., cone) through investigation with concrete materials	"We sorted all the triangles." "This is a weird, long shape but it has three sides. It looks like a triangle all stretched out." Doing A group of children sort some found materials using sorting hoops. Representing During gym time, the children use their bodies to represent different shapes.	"What do you notice about the shape of this card? How would you describe it? Can you think of something that's the same shape?" "Do you see any other shapes that remind you of this shape?" Challenging "Use three strips of paper to show me a triangle." "Use your strips to show me something that is not a triangle." Extending "Look at the objects in the sorting circle. What do you notice about all of these things? Can you tell what rule I was using to sort them? What else could we add to this group?"

Specific Expectations		Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
	ldren progress through the Full-Day Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
G3.4	compose pictures, and build designs, shapes, and patterns, using two-dimensional shapes, and decompose two-dimensional shapes into smaller shapes, using various tools or strategies (e.g., sand at the sand table, stickers, geoboards, pattern blocks, a computer program) build three-dimensional structures using a variety of materials and begin to recognize the three-dimensional figures their structure contains	"My house has a pointed roof." "My picture has lots of the same shapes — these ones are all round." "This house shape has a triangle on the top and a square on the bottom." "I used two triangles to make a rhombus." "I built a castle. I put three cubes on the bottom. I used a cone for the tower." Doing A small group of children use pattern blocks, stacking them together to make new shapes (e.g., using two squares to make a rectangle). Representing Using found materials of various geometric shapes, some children work together to create a vehicle.	Responding The EL–K team places some magnetic shapes on a cookie sheet for the children to use to compose and decompose pictures and designs. "What shapes can you use to make something that looks like an ice cream cone?" Challenging "You used so many shapes to design your picture. How did you decide what shapes to use?" Extending After reading a story that is illustrated with tangram designs, a member of the EL–K team asks the children to make one of the designs in the story. The children place the tangram pieces on a design template and then re-create the design by placing the pieces in the same pattern beside the template.
G3.5	investigate the relationship between two-dimensional shapes and three-dimensional figures in objects that they have made	Saying "The side of the house I built looks like a square." "I put a triangle inside the square on the geoboard." "There is a circle on the bottom of the cone." "I built a rocket ship. Look at the cone on top. The front is a big rectangle."	Responding "What do you notice about the sides of a cube?" "What do you notice about the bottom of a cone? The bottom of a pyramid?"

As chil	dren progress through the Full-Day Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
		Doing A child works at the visual arts centre, using a stamp to paint each side of the cube, and states, "I have six sides." Representing The children take a photograph of their structure and post it at the block centre to help them describe to the rest of the class how they built their structure: "We put a row of big blocks on the bottom. On top of them we put smaller cubes."	Challenging While observing a child at the block centre, a EL–K team member says, "I noticed you have used a lot of rectangular blocks. Can you tell me why you chose that shape?" Extending "What do you notice about the blocks on the top (pointing) compared to the blocks on the bottom?" "How did you figure out how to make the structure stable when you changed the bmlocks on the top?"
G3.6	demonstrate an understanding of basic spatial relationships and movements (e.g., use above/below, near/far, in/out; use these words while retelling a story)	Saying "I am sitting beside my friend." "I have moved this block on top of the tower." "The book is near the shelf." Doing Two children are working together to build a structure with floor blocks. One child uses spatial terms, such as on top, beside, behind, to describe to the other where to place the blocks. Representing After drawing a map of the classroom, a group of children add directional arrows and labels to show items above and below the shelves.	Responding Members of the EL–K team support the children's exploration of spatial relationships: "Who is in front of you in line?" "Stand near" "You put the block beside you." "Which block will you put under the small block?" Challenging Members of the EL–K team lead the children in a game in the gymnasium. The children have to move in the space according to the directions of the team member: "Move beside someone." "Move near the wall." "Move far away from the door."

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
		Extending The EL–K team invites the children to share their classroom map with the rest of the class, and facilitates their communication about the purpose of the arrows and labels on the map.

Overall Expectation P4: explore, recognize, describe, and create patterns, using a variety of materials in different contexts

Professional Learning Conversations

After consulting some professional sources, a member of the EL–K team gives a presentation on the importance of giving children opportunities to explore patterns. Such exploration provides practice in predicting what will happen, talking about relationships, and seeing connections. In discussions, team members agree that children need to extend their ability beyond simply identifying a pattern. They decide to use a strategy of covering up the middle of the pattern to require children to engage in more deductive reasoning. They also plan ways to model for children the use of the statement "I know it is a pattern because ...".

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
P4.1 identify, create, reproduce, and extend repeating patterns through investigation, using a variety of materials (e.g., attribute blocks, pattern blocks, a hundreds chart, toys, bottle tops, buttons, toothpicks) and actions (e.g., physical actions such as clapping, jumping, tapping)	Saying "I've made a pattern with the blocks. I put two blue ones and one green one. Then I put two blue ones again." "The next word will rhyme with 'wall' because there is a pattern in the words." "The pattern goes 'big button, small button, bead, big button, small button, bead', so a big button goes next."	Responding The EL-K team encourages the children to recognize patterns that are part of daily life: "Let's look at this month on the class calendar. What pattern do you see?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
p4.2 identify and describe informally the repeating nature of patterns in everyday contexts (e.g., patterns in nature, clothing, floor tiles, literature, schedules), using oral expressions (e.g., "goes before", "goes after", "morning, noon, night", "the four seasons") and gestures (e.g., pointing, nodding)	Children examine various patterns to decide what the next item in each pattern would be. Representing A group of children use coloured tiles to represent the patterns in some of the children's clothing.	Challenging Using rhymes, pictures, and objects that have patterns, the EL–K team models for the children the use of the statement "I know it is a pattern because". Team members then challenge the children to use the statement to describe patterns they find in the classroom. Extending A member of the EL–K team takes a small group of children for a walk both inside and outside the school to search for patterns. When a child notices a pattern, the group pauses to discuss why it's a pattern.

Overall Expectation DM5: sort, classify, and display a variety of concrete objects, collect data, begin to read and describe displays of data, and begin to explore the concept of probability in everyday contexts

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
DM5.1 sort, classify, and compare objects and describe the attributes used	Saying "I sorted my animals by size." "My shoes and your shoes both have zippers."	Responding An EL–K team member observes the children sorting books and invites them to share their categories for sorting.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's	
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions	
DM5.2 collect objects and data and make representations of their observations, using concrete graphs DM5.3 respond to and pose questions about data collection and graphs DM5.4 use mathematical language in informal discussions to describe probability Professional Learning Conversations A member of the EL–K team suggests an idea to help familiarize children with data and graphs while involving them in planning a field trip. After brainstorming field-trip destinations with children, a team member creates a graph with pictures destinations and invites children to put a mark on the graph (e.g., their name, their picture, a sticker) indicating their choice. To extend their thinking, the children examine the graph and determine the most popular and least popular	"In both stories Goldilocks ate the porridge." "There are 5 people standing in the laces row and 15 people standing in the Velcro row. What about the leftover children?" "More people like to eat rice than broccoli. I know because there are more names in this row. I counted them." "There is only two people left on the graph that are four [years old]." Doing A small group of children sort books based on the types of pictures on the front cover. Representing After conducting a survey on pet ownership among their classmates, a group of children create a graph with separate columns showing the number of children who have cats, dogs, birds, hamsters, and fish.	Challenging Members of the EL–K team challenge the children to think about the results of their survey, asking question such as: "What did you find out?" "How did you find this out?" "How many people did you ask?" "What makes you think that?" Extending The EL–K team planned an inquiry after one of the children posed the questions, "How many pockets are on our clothing today? Over two days? How will we show how many pockets we have?" A team member posed the problem and documented the children's learning on video. Team members then analyse the video with the children to examine the learning and further the children's thinking.	
the most popular and least popular destinations.			

SCIENCE AND TECHNOLOGY

OVERVIEW

Children's level of emotional maturity influences their engagement in intellectual challenges. Science and technology in the Full-Day Early Learning–Kindergarten program need to build on young children's curiosity and sense of wonder. Children at this age are naturally curious and ask many questions about their world and the things that puzzle them. By observing and exploring the world using all their senses, with guidance from the Early Learning–Kindergarten (EL–K) team,* and by interacting with their classmates, they begin to connect their prior knowledge and experience with their experiences in new contexts. They define, classify, make connections and predictions, test theories, and use their imaginations to build knowledge and develop an understanding of the world around them.

To meet the needs of these inquisitive children, the learning environment must be active, hands-on, child-centred, and inquiry-based. The EL–K team plays a critical role in creating an environment to support children's scientific inquiry and their engagement in the technological design process. Children monitor adults' reactions to their actions. When adults communicate that an approach or answer is "right" or "wrong", they can cut off children's thinking. The EL–K team supports children through the problem-solving process, encouraging them to try something new, persist, and find alternative solutions. The team challenges children to use their observations to predict and draw conclusions and to think about how things work and why something happened. Children are also encouraged

to reflect on what they could do differently or change the next time they engage in an inquiry or process. EL–K teams plan time for children to formally and informally share their questions and celebrate their discoveries.

The EL–K team's knowledge of how young children learn is the basis for providing carefully designed, high-quality, hands-on learning experiences within and outside the classroom. The use of concrete materials (both commercial and found), models, visuals, books, and computer software enhances children's vocabulary development and their scientific and technological knowledge.

The overall and specific expectations apply to both science and technology. Children in the Full-Time Early Learning—Kindergarten program begin to develop an understanding of foundational scientific and technological concepts and begin to develop skills through free exploration, focused exploration, and guided activities. They can learn about the physical properties of materials at the sand and water centres and about living things and ways of caring for them at the discovery centre. They can learn how to use simple machines such as ramps at the block centre and how to follow through with a plan at the technology centre.

While engaging in science and technology, groups of children may undertake projects that involve in-depth study of a particular topic. Such projects constitute inquiries that involve children in seeking possible answers to questions they have formulated themselves, in collaboration with the EL–K team, or that arose during the course of earlier investigations. These projects are based on what children are theorizing, predicting, wondering, and thinking. Many projects evolve from, and contribute to, socio-dramatic play. Projects should include many opportunities for representation that permit children to return to what they know, rethink, and

^{* &}quot;Early Learning–Kindergarten team" refers to the Kindergarten teacher and the early childhood educator(s) in a Full-Day Early Learning–Kindergarten classroom. The abbreviation "EL–K team" will be used throughout the remainder of the text and in the chart in this section.

integrate new knowledge. Children learn best from topics they can explore deeply and directly. Abstract topics (e.g., rainforests, penguins, planets) are difficult for children to conceptualize. The focus for any inquiry must be drawn from what is familiar to children in their daily lives.

Children require time and repeated opportunities to develop the skills needed for learning in science and technology. They may need to be exposed to the same investigation on several occasions to reinforce what they have learned and to help them take the learning from one experience and apply it in another context – for example, concepts learned from an investigation of what happens to snow when it is brought inside or kept under different conditions can be applied when children try to make an ice cube melt as quickly as possible. Children need opportunities to demonstrate their learning in many ways – through representing (e.g., constructing, drawing, making a diagram, or taking a photograph of a structure), recording (e.g., noting the number of blocks they used to build a structure in order to rebuild it on another day), or discussing their investigations with a classmate (e.g., describing how they got a marble to go from the top of the marble run to the bottom).

It is important for all young children to see themselves as scientists and as people who can work with technology as they investigate their world. Like scientists and technologists, they will be observing and sometimes recording their observations, making predictions, asking questions, making comparisons, investigating, drawing conclusions, and applying problem-solving skills. Science and technology do not involve simply the rote memorization of facts; rather, they involve particular ways of thinking and learning about and constructing understanding of the world in which we live. Developing this way of thinking and learning will lay the foundations for further learning as children continue to develop their understanding of science and technology throughout their years in school.

Big Idea: Children are curious and connect prior knowledge to new contexts in order to understand the world around them.

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- demonstrate an awareness of the natural and built environment through hands-on investigations, observations, questions, and representations of their findings;
- conduct simple investigations through free exploration, focused exploration, and guided activity, using inquiry skills (questioning, planning, predicting, observing, communicating);
- **3.** demonstrate an understanding of the natural world and the need to care for and respect the environment;
- **4.** use technological problem-solving skills (questioning, planning, predicting, constructing, observing, communicating) in free exploration, focused exploration, and guided activity.

Professional Learning Conversations

A member of the EL–K team reports on a professional learning session she attended: "The facilitator challenged my thinking and practice about planning. The facilitator presented a few models for planning and asked us to discuss how our plan reflected the overall expectations, what we know about how young children learn, and the cultural and linguistic background of the children. I began to feel uncomfortable with how closely one of the models we were asked to critically analyse aligned with the plans I had been using for several years. As our group began to collectively reflect, we wondered if the way we had always planned makes sense to the children. I reflected that I had always felt somewhat limited by the plans based for the most part on the monthly calendar. I had always assumed that children were interested in the monthly topics I had chosen. Had I ever asked the children what they were interested in? Were they able to think deeply and concretely about such abstract topics as polar bears and the rain forest?"

Overall Expectation 1: demonstrate an awareness of the natural and built environment through hands-on investigations, observations, questions, and representations of their findings

Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning (Note: Children are not required to demonstrate their learning in all three ways.)	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions	
ask questions about and describe some natural occurrences, using their own observations and representations (e.g., drawings, writing)	"The snow is melting." "The leaves are turning red." "Why did all the worms come out of the ground?" Doing At the dramatic play centre, a child is sorting the dress-up clothes. One pile has a simple drawing of a snowman on top. She tells the EL–K team member that she is putting away the winter clothes because it is summer now. Representing A child paints a picture with two panels showing what the sky looks like during the day when he is playing outside and at night before he goes to bed.	come out onto side EL-K team plans one member of the The team gathers pictures of worms. Challenging "I wonder what a the snow." "What did you of and held it in you what tool can use the same a group of a team member a which the weather the same and the weather the same and	children share their inquiry on worms, asks the group to think of other ways in er affects plants, animals, and people. The team, the children record their ideas Worms come out of the ground. People wear boots and mittens.
		Ice	Some tree branches get broken off.

As ch	cific Expectations hildren progress through the Full-Day y Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions	
1.2	sort and classify groups of living and non-living things in their own way (e.g., using sorting tools such as hula hoops, sorting circles, paper plates, T-charts, Venn diagrams)	"These things are all round." (To an EL–K team member who joins the group in the class "restaurant"): "I put all the fruit on this plate and all the meat on that plate." Doing The children are putting away materials at the block centre, separating the wooden blocks from the foam blocks and then sorting each category by size and colour. Representing Children sort items and then use a T-chart to show how the items have been classified.	"Tell me how you sorted these things." "Which things are the same in some way? Which ones are different?" "What is the name for all the things in this group?" Challenging "What are some other ways that you could sort the same things?" "Why do people need to sort things?" Extending A member of the EL—K team notices that several children are ready to move on to the next stage of classifying. The team member sets up a game where he or she picks an item from a set of materials and places it on the table in front of the children. The team member then asks one of the children to find a piece that is different in only one way (e.g., in colour, in size) and say what the difference is. The children take turns finding an item that is different from the previous one in just one way and describing the difference.	
1.3	explore patterns in the natural and built environment (e.g., patterns in the design of buildings, in flowers, on animals' coats)	Saying "The floor of our classroom has a pattern." "Day, night; day, night; day, night – that's a pattern."	Responding "What patterns do you see?" "How is the pattern in the like another pattern you have seen elsewhere?"	

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
	"The next leaf on the twig would be on this side because the pattern is this side, that side; this side, that side." Doing At the sorting centre, a child uses the transportation shapes to make a pattern: big truck, small truck, blue car; big truck, small truck, blue car. Representing On a walk in the neighbourhood, children use a marker and a photograph of the street to highlight the patterns they see, such as patterns in bricks or shingles on a house, slats in a fence, a spider web, the rings on a tree stump.	Challenging "I know this is a pattern because" Extending The EL–K team models how to "show" the rhythmic pattern in a poem.

Overall Expectation 2: conduct simple investigations through free exploration, focused exploration, and guided activity, using inquiry skills (questioning, planning, predicting, observing, communicating)

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
2.1 state problems and pose questions before and during investigations	Saying "My tower keeps falling down!" "This bridge doesn't work."	Responding The EL–K team introduces the inquiry process by asking questions of the children that will lead to more questions throughout the process. They listen to children's questions with respect and support them in finding answers to these questions.

As children progress through the Full-Day Early Learning—Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions	
Larry Learning Remarigation program, incy.	Doing "I wonder what would happen if we put the bigger blocks on the bottom." "I think we need something in the middle to keep it from falling down. What can we use?" Representing With the help of the EL–K team, some of the children record their questions about an investigation on sticky notes and post them for others to think about.	"How did you build your tower?" "What do you want your bridge to do? What isn't working?" Challenging The team poses questions that cause children to think logically and use language to represent their thinking: "What do you know about bridges that would help you build one? Let's look at some pictures of bridges and see what we can find out." "What are some safety things you will need to think about?" "How will you build the first row of your tower?" Extending A member of the EL–K team observes a child looking at the questions that another child has posted. The team member helps the child to read the questions and to pick one that is of interest. The team member then helps the two children connect so they can talk about the question.	
2.2 make predictions and observations before and during investigations	Saying "I think we need to put more blocks on the bottom. Then our tower won't fall over this time." "The boat stays up with two shells in it. Let's put some more shells in the boat. I think it will stay up if we put in one more shell."	Responding "What might we notice when we go back to the woods now that it is winter?" "Yesterday was sunny. Now it's raining. What are some of the things you might see outside today that you didn't yesterday?"	

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
Professional Learning Conversations Members of the EL–K team view a video of children investigating the properties of water. As they watch, they compare their observations, taking note of the way children approach and learn from the activity. They then discuss among themselves ways of extending the children's learning with further opportunities for exploration and inquiry.	"I bet it will sink when we put all the shells in." "I think my shadow will move when I move." Doing At the water centre, several children test their boats, observing how many shells each will hold before it sinks. Representing As one child places the shells in a boat, another keeps track of the number of shells using a simple tally.	The EL-K team removes irrelevant materials such as sea creatures, funnels, and tubes from the water centre to allow the children to focus on the boat-sinking inquiry. Challenging "How does your hand look when you see it through a magnifying glass? What do you see that you didn't see without the glass?" A member of the EL-K team challenges the children to focus on the boat that held the most shells before sinking and explore how it is different from the other boats. "What can you change in your design to make the car go farther next time?" Extending "You've tried that size of funnel. I wonder what would happen if you put water in a different funnel." "What happened when you tried to balance big blocks on top of smaller blocks? What do you think would happen if you used bigger block in the base?"
2.3 select and use materials to carry out their own explorations	"Here are some bungs we can use for wheels." "Let's plant this seed in stones and see if it grows." Doing A small group of children choose materials that they think will prevent their ice cube from melting.	Responding "What are you investigating? What materials are you thinking of using? Why? What tools will you need?" Challenging "How will you make sure that you both get a chance to use the big scoop?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
As children progress through the Full-Day Early Learning–Kindergarten program, they:		
	Representing The children show in words and pictures the rate of growth of their bean plants.	Extending "I see all the roads in your city. How will cars know where to drive?
2.4 communicate results and findings from individual and group investigations (e.g., explain and/or show how they made their structure; state simple conclusions from an experiment; record ideas using pictures, numbers, labels)	"We made a sign so that the cars would know where to go." "We found out that the plant grew best in the sun." "When we added water to the sand it made it stick together." Doing The children building the sand city explain what they did and which materials and tools were most useful and why. Representing Some children make sketches to show how they started their plant and the growth of their plant over time.	"How can you show that the plant in the sun grew faster than the plant in the shade?" "What conclusion can you make from our plant experiments?" Challenging "Did things turn out the way you thought they would? Why? Were there any surprises?" "What did you find out when you looked at the leaf just with your eye and when you looked at it with the magnifying glass?" Extending "What other ways can you think of to show what you found out?"

Overall Expectation 3: demonstrate an understanding of the natural world and the need to care for and respect the environment

Professional Learning Conversations

Noticing that the children are fascinated by the size of a tree outside their classroom window, the EL–K team discusses how they could use this curiosity to develop the children's appreciation for nature. One participant suggests that a group of children be encouraged to explore this tree and other trees, using photographs, video, and language to represent their observations and thinking about the tree. The team decides to meet briefly each day to analyse what the children are discovering and discuss possible responses to enhance their learning.

As c	cific Expectations hildren progress through the Full-Day by Learning—Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
3.1	identify similarities and differences between local environments (e.g., between a park and a pond; between a schoolyard and a field) describe what would happen if	Saying "Those trees are just like the one in my backyard." "We can't feed the ducks now. There's no water in the pond so they won't come there any more." "I like walking to school."	Responding "What else is the same about your backyard and the schoolyard? What is different?" "Why do ducks need water? What else needs water?" "How does walking to school show care about the world in
3.3	something in the local environment changed (e.g., if trees in the park were cut down; if the pond dried up) identify ways in which they can care for and show respect for the environment (e.g., feeding the birds in winter; reusing and recycling;	"You can re-use this paper." Doing Children use recycled milk cartons and found materials to make bird feeders to hang from the trees in the schoolyard. One of the children asks for help from the EL–K team to make a list of seeds that they can use to fill the feeders.	which we live?" Challenging In order to involve the children in the school's energy-saving initiative, the EL–K team invites the children to make signs or labels that will remind them to turn out the lights when they are the last to leave a room. "What would happen if there were no more (trees, birds,
	turning off unnecessary lights at home; walking to school instead of getting a ride)	Children working at the creative centre put scraps of leftover materials that can be used in other projects in the appropriate bins on the shelf.	grass, etc.)?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
3.4 participate in environmentally friendly activities in the classroom and the schoolyard (e.g., plant and tend to plants; use local products for snack time)	Representing The class makes a book to record, in pictures and text, what their schoolyard looked like before and after the school council planted trees and shrubs. Children show pictorially which shrubs, plants, and trees in the schoolyard attract birds and which kinds of birds they attract.	Extending The EL–K team heard the children wondering about the many types of birds they saw in the shrubs and trees in the schoolyard. To support their learning, the team invites a member of the local horticultural society to explain how certain plants and trees attract different kinds of birds.

Overall Expectation 4: use technological problem-solving skills (questioning, planning, predicting, constructing, observing, communicating) in free exploration, focused exploration, and guided activity

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
4.1 identify practices that ensure their personal safety and the safety of others, and demonstrate an understanding of the importance of these practices	Saying "Don't put that in your ear!" "I need to wear my safety goggles when I work at the take-apart centre." "I'm going to get some paper towels to clean up the water we spilled so we don't slip and fall down."	Responding "I notice that you put the scissors back in the bin when you were done using them." "Why is it important to clean up water when it spills on the floor?" "Why does the custodian wear headphones when he cuts the school lawn?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	Doing A child "fixing" a car at the block centre borrows a set of earphones from the listening centre. A group of children who have made a snack for the class wash up the utensils and put them back in the storage basket. A child who has been working at the sand table uses a whisk broom and dustpan to sweep up the sand that has fallen around the table. Representing A group of children design a sign to remind those working at the sand table to sweep up the sand on the floor so others do not slip on it.	Challenging The EL–K team displays a variety of safety items and devices (e.g., various kinds of ear and eye protection, orange cones, child safety devices, pictures of familiar warning signs). The children are invited to discuss questions such as who would use the devices and why, and where they might commonly see the signs and what message they convey. Extending The team discusses with the class the safety problem they are having on the outdoor play equipment. Together, the children and the team determine how to make the slide a safer place to play.
4.2 state problems and pose questions as part of the design process	Saying "I want to build a house that looks just like mine." "I'm going to make a rice cooker." "I'm going to make an invention." Doing "I wonder how I can make my door open like a real door." "I need to make windows for my house. What should I use?"	Responding The EL-K team introduces the design process by asking questions of the children that will lead to more questions throughout the process. They listen to children's questions with respect and support them in finding answers to these questions. "What does your house look like? What are some of its parts?" "How do you cook rice? How will you make that happen in your rice cooker?" "What is your invention going to do?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	Representing With help from the EL–K team, the class makes a list of questions that might be used to initiate a design challenge. They categorize the questions as those that open up thinking (i.e., those that can lead to a rich investigation) or those that close thinking (i.e., those that are more likely to be answered with "yes" or "no").	Challenging The team poses questions that cause children to think logically and use language to represent their thinking: "What do you know about windows that would help you choose the right material to use?" "What are some safety things you will need to think about?" "How will you make your invention move?" Extending The team models the different kinds of questions (e.g., clarifying, probing) that might be asked throughout the design process. Each kind of question challenges the children to think differently about the work that they are doing. "Which materials worked best?" "What did you try first?" "Why do you think that didn't work as well as you thought it would?"
4.3 make predictions and observations throughout the design process	Saying "If we use the big scoop, it won't take as long to fill this big pail." "Here's my guess – I guess that the birds will like my house better than the others because mine has a bigger hole for them to get through."	Responding The EL–K team models predictive questions that invite children to construct a hypothesis about the outcome of an investigation: "What will happen if?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
Professional Learning Conversations The EL–K team meets to discuss what types of books might be added to some of the centres in the classroom. One team member notes that the children have been asking questions about how simple machines work. The team therefore decides to start by adding age-appropriate non-fiction books on simple machines to the block centre. The team meets later to discuss how they would support the children's use of these books when they are working on their own designs.	After making bird feeders from recycled materials, the children place them in the tree outside their classroom window. They observe and record the activity that takes place at each of the feeders. With support from the EL–K team, and based on their own observations, some of the children make modifications to their feeders and place them back outside to observe the effect of the changes on bird activity. Representing Several children explain orally to a parent volunteer the modifications made to their bird feeders, why the modifications were needed, and how the modifications changed the level of bird activity at the feeders.	Challenging Once the children have made predictions, the EL–K team challenges them to think of ways in which they can find out how accurate their predictions are. Children try out an idea to explore their predictions. If that idea fails, the team challenges the children to think about why the first idea did not work and encourages them to move on to another idea. This helps the children become better problem-solvers. Extending In order to support the development of observation skills, the EL–K team revisits the observations made by the children throughout the design process. The team guides the children in reviewing their observations, distinguishing those that are accurate observations of what really happened from those that are inferences.
4.4 select and use tools, equipment, and materials to construct things using the design process	Saying "I can see through the plastic wrap. I can't see through the tinfoil. So the plastic wrap would be better for my windows than the tinfoil." "I need a hole punch to make my book."	Responding "How will you decide which material is the best one to use for your windows?" "What other tools might you need to use to finish your book?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	After trying different ways of attaching the plastic wrap to the window frames of their model house, a small group of children approach a member of the EL–K team for help. Through guiding questions, a team member helps the children determine that stapling the plastic wrap might be the solution to their problem. Representing As part of the design plan, children record in pictures and words the tools, equipment, and materials that they used.	Challenging After noticing a child using plastic wrap to make windows, a member of the EL–K team discusses the choice with her: "You chose the plastic wrap because you can see through it. But I noticed you had some trouble attaching it to the house. Why do you think this was so hard to do? Let's look at some of the other materials you could have chosen. Is there one that might have been a better choice?" Extending The EL–K team supports the children's environmental thinking by asking children to consider the impact on the environment when choosing tools, equipment, and materials for their designs. "I notice you took some paper out of the recycling bin to sketch your design and again when you were making rugs for your house. Why did you do that?" "Why did you choose to use the glue stick rather than the low temperature glue gun to attach your windows?"
4.5 communicate and record results and findings after constructing things either individually or in groups (e.g., explain and/or show how they made their structure; record ideas using pictures, words, numbers on labels or in charts)	Saying "When I pull the string, my toy moves." "We made our tower wider at the bottom so that we could build it taller. Now it doesn't fall down." "I couldn't make the plastic wrap stick. The glue didn't work. So I had to start all over again."	Responding "Tell us how you solved the problem." "Show us how your device works." Challenging "How might what you found out this time change how you solve the problem next time?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
	Doing A small group of children make several attempts to build a tower as tall as they are. Through trial and error, they discover that if they make the bottom of the tower wider they can build it taller. They record pictorially the finished product and label the pictures to show their solution. Representing After creating a device for making rice, a child creates a set of labels to show how the device works – where the rice and water go, how to start and stop the cooker, and how to take the rice out.	Extending "What was hard for you?" "What didn't work like you thought it would? Why? What did you do?"

HEALTH AND PHYSICAL ACTIVITY

OVERVIEW

Young children begin the Full-Day Early Learning–Kindergarten program at different stages of physical, social, emotional, language, and cognitive development. The health and physical activity component of the program is designed to help children progress along the developmental continuum by encouraging them to participate daily in a range of engaging, developmentally appropriate physical activities and by supporting them to make responsible, informed choices that contribute to a healthy, safe lifestyle.

In order to build a foundation for lifelong participation in and appreciation for healthy, active living, young children need to develop a positive attitude towards health, safety, and physical activity. They need to be introduced to concepts that promote a healthy, safe lifestyle. They also need opportunities to explore and discuss the effects of physical activity, healthy eating, and care for themselves, as well as the effects of unhealthy choices. Safety is an integral part of being healthy, so young children need to start learning how to identify safe and potentially unsafe situations, how to handle them, and when to ask for help. The expectations related to safety need to be integrated into all areas of learning rather than taught in isolation.

The future health and well-being of young children are directly related to the development of physical and health "literacy". Children who are "physically literate" are able to move with competence in a wide variety of physical activities. Children who are "health literate" have the skills needed to acquire, understand, and use information that will help them make good decisions about their health. The design of the Full-Day Early Learning—Kindergarten program provides a foundation for children's development of both physical and health literacy.

By engaging in a wide range of physical activities, children strengthen both their large and small muscles. Gross-motor control, also known as large-muscle control, involves the purposeful control and stabilization of major body movements, balance, and coordination. It enables children to perform more complex movements, such as running, throwing, catching, and jumping, in a range of physical activities, including games.

Participation in games contributes to children's development of social skills and self-esteem as well as their physical skills. Games with rules may be similar to pretend play, but the players must learn and abide by rules and perform actions specific to each type of game. Through games, children learn to adapt to structured situations, and they have opportunities to explore and practise a range of skills and strategies they can use in both individual and group activities. They reflect on their own learning (metacognition) as they work to achieve the goals and master the techniques of the game or activity, and they use their insights, as well as feedback from others, to self-correct and improve performance. In all such activities, however, the focus should be on exploration and creativity, to allow children to develop individual skills and self-confidence. Above all, the context for such activities should emphasize inclusiveness, to ensure that the participation of every child is valued.

Fine-motor control, also known as small-muscle coordination and control, involves the manipulation of materials and tools for drawing and writing and the use of hand-eye coordination. It is important for Early Learning–Kindergarten (EL–K) teams* to provide children with opportunities for active play that uses large and small muscles in a variety of contexts both indoors and outdoors. Specific activities such as puzzles or building with small interlocking blocks promote self-regulation skills at the same time as they provide opportunities for children to practise finemotor skills. Young children should be encouraged to work cooperatively with others and to persevere with their own physical activities.

Because young children learn in an integrated way, concepts related to health and well-being, to physical development and activity, and to safety need to be incorporated into all areas of learning. Young children need to engage in enjoyable and stimulating learning activities that encourage exploration of their world; promote physical skills; enhance neural processing; and develop a general awareness of their bodies' needs, limitations, and capabilities. The EL–K team needs to plan interactions that address physical movement, skill practice, and attention to safety in combination rather than as separate components.

Through participating in developmentally appropriate activities that encourage and equip them to make healthy choices and engage in daily physical activity, children will build a solid foundation for their overall health and physical well-being in the years to come.

^{* &}quot;Early Learning-Kindergarten team" refers to the Kindergarten teacher and the early childhood educator(s) in a Full-Day Early Learning-Kindergarten classroom. The abbreviation "EL-K team" will be used throughout the remainder of the text and in the chart in this section.

Big Idea: Children make healthy choices and develop physical skills.

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- 1. demonstrate an awareness of health and safety practices for themselves and others and a basic awareness of their own well-being;
- **2.** participate willingly in a variety of activities that require the use of both large and small muscles;
- develop control of large muscles (gross-motor control) in a variety of contexts;
- **4.** develop control of small muscles (fine-motor control) in a variety of contexts.

Overall Expectation 1: demonstrate an awareness of health and safety practices for themselves and others and a basic awareness of their own well-being

Professional Learning Conversations

The EL-K team has a discussion with parents about how the Full-Day Early Learning-Kindergarten program supports the development of healthy active living. At a subsequent Parents' Night, a group of parents share the strategies they use at home to encourage their child to make healthier food choices and engage in more outside play.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning (Note: Children are not required to demonstrate their learning in all three ways.)	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
1.1 begin to demonstrate an understanding of the effects of healthy, active living on the mind and body (e.g., choose a balance of active and quiet activities throughout the day; remember to go to the snack centre; drink water when thirsty)	Saying "I like going for a walk after school." "My heart is beating fast!" "I'm thirsty from all that running." "Feel my forehead. I'm sweaty from playing outside." "I ride my bike." "I went tobogganing with my family on the weekend."	Responding EL-K team members observe children's efforts to make healthier choices during daily routines, and acknowledge the children's actions: "I noticed you're trying more and different fruits and vegetables. Why? Which ones do you like best?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
	Children choose an active physical activity such as climbing or playing with a ball during outdoor playtime. After outdoor playtime, some of the children choose to spend quiet time in the book corner or listening centre before returning to their work at the learning centres. Representing "My stomach is rumbling. I need a snack." "I am going to make a sign for the snack centre to show what is for snack."	Challenging "How does eating healthy foods help our body and mind?" Extending The EL–K team introduces the class to Canada's Food Guide. After the children set up a store in the dramatic play centre, the team observes the kinds of items they have chosen to sell and asks them to talk about their choices.
1.2 investigate the benefits of nutritious foods (e.g., nutritious snacks, healthy meals, foods from various cultures) and explore ways of ensuring healthy eating (e.g., buying nutritious food for meals, avoiding foods to which they are allergic)	Saying "My friend is allergic to peanuts." "I liked it when we got to try rice dishes from different countries. Some of them had healthy stuff like vegetables in them. And they tasted good, too!" Doing Some of the children set up a store in the dramatic play centre. They stock the store with a wide variety of food items, but encourage their customers to buy fruits and vegetables when they shop. Representing Children draw pictures for the shelves of the store, illustrating healthy food items.	Responding At snack time, EL–K team members discuss with children what it means to be allergic, explain why some children need to avoid particular foods, and reinforce the point with statements such as, "We have posted signs so that everyone knows how to keep our classroom safe." Challenging "What are some healthy choices for snacks?" "Why do we need to eat lots of fruit and vegetables?" "Why is pizza a better snack than a doughnut?"

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Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
		Extending After tasting several rice dishes from a variety of countries, the children decide they would like to taste other dishes from different cultures. EL–K team members help them make a list of other foods that are eaten in various cultures (e.g., different breads or fruits) and plan a tasting session for another time.
1.3 practise and discuss appropriate personal hygiene that promotes personal, family, and community health	Saying "I washed my hands." "I need a tissue." "I am going to the dentist tomorrow." Doing Children create a sequence of digital photographs showing the steps for washing hands to place by the sink or washing bin. Representing The EL–K team learns from a child's family that the child has shared and demonstrated at the dinner table what she has learned in class about "sneeze in your sleeve".	Responding Based on their observations, EL–K team members acknowledge children's practices that demonstrate good personal hygiene. "I noticed that you washed your hands after you were done playing in the sand. You did that yesterday, too, after you came back from the gym." Challenging "In what ways do we take care of all parts of our body? Why is it important to do these things?" "How do we help to keep our classmates healthy?" Extending "What jobs do people do in our school and community that help all of us to be healthy?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:		Intentional Interactions
1.4 discuss what action to take when they feel unsafe or uncomfortable, and when and how to seek assistance in unsafe situations (e.g., acting in response to inappropriate touching; seeking assistance from block parents, 911, playground monitors; identifying substances that are harmful to the body)	"When I saw a boy fall on the playground I told the teacher." "There is broken glass in the yard." "The climber is broken." "B was mean to me in the playground." "When the dog that was all by itself growled at me, I went to a block parent's house." Doing At the dramatic play centre, a child calls 911, gives the operator her name and the address of the house, then says that someone is sick. Representing A child constructs a building at the block centre, then makes a sign that says "Danger" to indicate that the building is not safe for people.	Responding The EL–K team records children's safety-related ideas and questions and then invites a community police officer to visit the class to discuss safety and answer some of the children's questions. Challenging The EL–K team presents a variety of scenarios to the children for discussion, using questions that start, "What would you do if?" Extending After prompting the children to recall some of the things they can do to stay healthy, EL–K team members ask them to think of things they should avoid that could be harmful to their health (e.g., smoking, taking medicine that belongs to someone else). An EL–K team member records the children's suggestions.
1.5 discuss what makes them happy and unhappy, and why	Saying "I was happy that I got to meet the firefighter." "I was sad when the class pet fish died." "I was happy when we got to play outside." "I was sad when the sliding hill got closed." Doing At the puppet centre, children express emotions through the dialogue they create for their puppet characters.	Responding Showing empathy by acknowledging feelings can create a connection between children and team members. EL–K team members acknowledge the feelings expressed by children by saying, "I see you are sad. It's hard when mom has to leave and go to work." Challenging "How can people tell when we are feeling happy or sad?"

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As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
	Representing After the class pet fish dies, a child draws a picture of the fish. At the dramatic play centre, the child says, "It was sad that the fish died at school today. I made a picture of her to hang on the wall."	Extending EL–K team members discuss with the children what they can do when they are feeling sad (or angry, hurt, happy, etc.), and how they can respond when their peers show different kinds of feelings.

Overall Expectation 2: participate willingly in a variety of activities that require the use of both large and small muscles

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
2.1 participate actively in creative movement and other daily physical activities (e.g., dance, games, outdoor play, fitness breaks)	"Look how many hops I can do." "At recess I'm going to play on the climber." "Let's play musical hoops!" Doing During outdoor playtime, a small group of children engage in a game of hopscotch.	Responding EL–K team members exchange ideas about how to plan opportunities for children to be physically active in a variety of settings, both inside and outside the school and classroom. Challenging EL–K team members create opportunities for children to improve and refine their existing physical skills and to begin to develop new ones.

As c	cific Expectations hildren progress through the Full-Day by Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
		Representing A child who attends dance class after school teaches one of the steps to classmates.	Extending EL–K team members introduce new types of activities (e.g., elements from yoga) into the planned class movement activities.
2.2	demonstrate persistence while engaged in activities that require the use of both large and small muscles (e.g., tossing and catching beanbags, skipping, lacing, drawing)	"Running all the way around our field was hard, but I did it!" "I finally finished my painting. Come and see it." Doing A child persists in his efforts until he is able to complete a lacing card. Representing A small group of children create a game where they have to try to get beanbags inside a hoop.	Responding "I noticed how long you worked to finish your painting." Challenging EL-K team members post "challenge cards" on the outside wall of the school, using pictures and labels. The cards contain messages such as the following: "Throw the beanbag into the air and catch it three times." "Skip rope as many times as you can without stopping." "Hop from one foot to the other." Extending EL-K team members replace simple puzzles and lacing activities with ones that will be more challenging and require more muscle control.
2.3	demonstrate strategies for engaging in cooperative play in a variety of games and activities	Saying "It's your turn." "Can I try that?" Doing Two children with a giant deck of cards create the rules for a new game.	Responding "I notice that the two of you put your blocks together so you could build a bigger house."

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Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	Representing After creating the rules for a new card game, the children ask an EL–K team member to videotape them as they play and explain how the game works.	Challenging An EL–K team member notices that a child who usually plays alone is showing interest in playing with others. Team members find ways to encourage the child to participate more in cooperative play. Extending EL–K team members invite a small group of children to explain to the class how they solved a problem they were having sharing the materials in the sand table.

Overall Expectation 3: develop control of large muscles (gross-motor control) in a variety of contexts

Professional Learning Conversations

The Parent Council attends a community meeting where the results of the Early Development Instrument are shared. Council members are concerned about the Physical Health and Well-Being domain and discuss their ideas with the EL–K team. Together, they decide to establish a fitness goal to try to do more walking. When the educators hear this they decide to graph the number of walks (including walking from the parking lot) that children and EL–K team members do per week and then have a Celebration Walk in the spring.

As children progress through the Full-Day Early Learning-Kindergarten program, they: 3.1 demonstrate spatial awareness in activities that require the use of large muscles 3.2 begin to demonstrate control of large muscles with and without equipment (e.g., climb and balance on playground equipment; roll, throw, and catch a variety of balls; demonstrate balance and coordination during parachute games; hop, slide, or gallop in the gym or outdoors)

3.3 begin to demonstrate balance, whole-body and hand-eye coordination, and flexibility in movement (e.g., run, jump, climb, walk on the balance beam, play beach-ball tennis, catch a ball, play hopscotch)

Making Connections: Ways in Which Children Might Demonstrate Their Learning

Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions

Saying

"Everyone move out of the way. I need lots of room to roll the basketball."

"I used my feet to measure. It is thirty-five steps from one side of this room to the other."

"Look at me – I can stand on one foot without falling down!"

"I walked on the balance beam all by myself."

"Watch me climb to the very top of the slide set!"

"I catched the ball every time."

"I rode the trike all the way around the schoolyard."

Doing

Before starting to rotate the hula hoop, a child looks around to be sure that the hoop won't hit anyone.

A child kicks a ball towards a target painted on the wall.

Representing

"The music makes me hop like a bunny. Now it makes me walk like an elephant. Now I'm flying like an aeroplane. Look at my wings!"

Responding

EL-K team members provide guidance and feedback using comments such as:

"Be careful not to bump into your partner."

"We're going to stretch. Find a space to stand where you can see me.

"Is there a way to hold your arms that will help you balance on one foot?"

"How many ways can you balance on a line? On two body parts? Three body parts?"

Challenging

The EL-K team introduces music to accompany grossmotor activities and encourages children to practise their emerging movement skills by saying:

"Move around the gym with your arms in the air. Now try moving in a different way."

"How many directions can you move in?"

Extending

"Raise your right foot and your left hand."

"Do the Hokey Pokey."

"We're going to walk around our hoops. Now jump inside."

Overall Expectation 4: develop control of small muscles (fine-motor control) in a variety of contexts

Professional Learning Conversations

At a team meeting, an EL–K team member relates his interaction with a child: "During the 'sign in' routine, I observed Gurdeep attempting to write his name on the 'sign in' chart. I documented that Gurdeep used his name tag as a reference as he attempted to write the 'G' and the 'U'. This was evidence of his applying a reading strategy to his writing. Based on my observations of Gurdeep's fine-motor development, I knew that asking him to trace over the letters in his name on paper would be developmentally inappropriate [outside his zone of proximal development], as it was his fine-motor development that needed support. I praised and encouraged his attempts, and provided him with salt trays and sandpaper letters so he could use them to outline and trace over the letters with his fingers. This would help develop the bones in his wrist and make it easier for him to form letters with a pencil. Because I also wanted to help him recognize the letters in his name, I used magnetic letters to trace his name on a card, and had him match the magnetic letters to the letters on the card."

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
 4.1 begin to demonstrate control of small muscles in activities at a variety of learning centres (e.g., sand, water, visual arts centres) and when using a variety of materials or equipment (e.g., using salt trays, stringing beads, painting with paintbrushes, drawing, cutting paper, using a keyboard, using a mouse, writing with a crayon or pencil) 4.2 demonstrate spatial awareness by doing activities that require the use of small muscles 	Saying "I put all the pieces of the puzzle together." "I used the scoop to fill the pail. Then I dumped all the sand into the pile." "The small paintbrush made the skinny lines." Doing A child strings a pattern of large and small beads. A child does up the buttons on a doll's shirt. A child builds a structure with a construction toy, persisting in her efforts to join the pieces together.	"I notice that the puzzle you've just done has more pieces than the puzzle you did yesterday. The pieces are smaller, too." EL—K team members stock the writing centre with a variety of writing/drawing implements of various sizes and widths and use prompts such as, "I see you chose a thinner pencil to draw in the eyes, mouth, and nose. What might you use to draw the hands?" Challenging The EL—K team plans for the children to engage in "point and click" learning activities on the computer to support small-muscle development.

Specific Expectations As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
4.3 use a functional grip in written communication to produce writing that they and others can read	Representing "I can use the mouse to make the animals on the screen move."	Extending The EL–K team puts out small trays of sand, whiteboards, and chalk boards and encourages their use by children who need additional support with development of fine-motor skills.

THE ARTS

OVERVIEW

Young children have an innate need to make sense of the world. The arts in the Full-Day Early Learning–Kindergarten program provide a vehicle through which children can express their growing sense of self and their interpretation of the world. Visual arts, music, dance, and socio-dramatic play contribute in many ways to the development of children's thinking and communication skills. Providing children with opportunities to express themselves through the arts develops decision-making skills, stimulates memory, facilitates understanding, develops symbolic communication, promotes sensory development, and encourages creative thinking. Learning through the arts also fosters children's imagination, helps to develop empathy, promotes the development of relationships, and builds self-esteem, while enabling children to experience a sense of accomplishment. The arts are a vehicle for children to understand different cultures as well as to express their own culture. Many studies demonstrate that learning through the arts also improves literacy and numeracy.

In the Full-Day Early Learning–Kindergarten program, expectations in the arts are arranged under the following three subheadings: Drama and Dance, Music, and Visual Arts. Each area of the arts is of equal importance. Children need to have ready access to a wide variety of materials, resources, and experiences that offer them different ways in which they can demonstrate their learning. The creative process is the focus of the arts. Children's thinking emerges as they try out new theories and ideas. Children need time to revisit materials and experiences to consolidate their learning. Carefully planned experiences and organization of material enable children to explore visual arts materials, tools, and processes; music; and drama and dance throughout the day. Various learning centres in

the classroom (e.g., the puppet centre, the drama centre, the art studio) provide opportunities for children to apply and extend their learning.

It is important that young children see themselves as artists, musicians, dancers, and actors. Arts activities and experiences should be embedded in meaningful contexts in which children are thoroughly involved in the whole artistic process. Generic art activities (e.g., having children work with pre-cut shapes) should be used caution: they are rarely effective because their focus is narrow and they provide only limited assessment information on the child's level of understanding. Children need time to imagine, create, and explore in a non-threatening environment where they know their individual choices and responses are respected and valued.

Providing children with opportunities to express themselves through the arts supports their growing understanding in all areas of learning. Arts activities should be integrated not only to support the learning of expectations in other areas, but also to support the diverse learning styles, interests, and abilities of individual children. Exposure to and involvement in a variety of art forms will provide young children with the foundation for a lifelong interest in and appreciation of the arts.

Early Learning–Kindergarten teams* can invite local artists or children's family members who are involved in the arts into the school to enhance children's exposure to the arts and to introduce them to the arts as a profession and as a reflection of local culture and their community.

^{* &}quot;Early Learning–Kindergarten team" refers to the Kindergarten teacher and the early childhood educator(s) in a Full-Day Early Learning–Kindergarten classroom. The abbreviation "EL–K team" will be used throughout the remainder of the text and in the chart in this section.

Big Idea: Young children have an innate openness to artistic activities.

DRAMA AND DANCE

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- D1. demonstrate an awareness of themselves as dramatic artists and dancers through engaging in activities in drama and dance;
- demonstrate basic knowledge and skills gained through exposure to drama and dance and drama- and dance-related activities;
- use problem-solving strategies when experimenting with the skills, materials, processes, and techniques used in drama and dance both individually and with others;
- D4. express responses to a variety of forms of drama and dance, including those from other cultures.

Overall Expectation D1: demonstrate an awareness of themselves as dramatic artists and dancers through engaging in activities in drama and dance

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning (Note: Children are not required to demonstrate their learning in all three ways.)	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
D1.1 demonstrate an awareness of personal interests and a sense of accomplishment in drama and dance (e.g., contribute their own ideas to role playing; create their own actions to accompany a song or chant and/or follow actions created by a classmate)	"My baby is crying. I'm going to sing her to sleep." "I'm going to be an elephant. See how my trunk moves?" "Let's make some puppets for our play." "What could we use for the troll's bridge?" Doing The children use a flashlight and puppets to perform a play at the shadow play area they have set up with the support of the EL–K team.	"You were pretending to be a mom. I can see your baby likes lullabies." "What can you use for the troll's bridge that will be safe for the goats to cross?" Challenging "You have so many creative ways to make the puppets move in the shadow play area. What happens when you use your hands for puppets instead? What's the same? What's different?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
D1.2 explore a variety of tools and materials of their own choice (e.g., blocks, puppets, flashlights, streamers) to create drama and dance in familiar and new ways	Representing After creating their own actions to accompany a familiar chant, a group of children record them pictorially so they can teach them to other children.	Extending The EL–K team works with individual children to help them select and use props to enhance their dance movements.

Overall Expectation D2: demonstrate basic knowledge and skills gained through exposure to drama and dance and drama- and dance-related activities

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
As children progress through the Full-Day Early Learning–Kindergarten program, they:		
D2.1 explore different elements of drama (e.g., character, setting, dramatic structure) and dance (e.g., rhythm, space, shape)	Saying "I'll be the bus driver." "I can dance really fast." "I was a leaf falling. I started up high, then I spun around, then I fell on the ground." Doing A group of children discuss the characters and the setting for the story: "I'll be the troll. He has an angry face and voice. I'll stand under the bridge and growl."	Responding "What happened first? Next? At the end?" "How many different ways can you move in your space?" "Let's move like the elephants in the story." Challenging "How can you use body shapes to show how the troll felt when he heard the billy goats crossing his bridge?"

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
	Representing A child uses scarves to show how the wind moves on a windy day.	Extending "If you were a tiny seed planted in the ground, show us how you would grow when the sun came out. Talk about why you chose to move this way."

Overall Expectation D3: use problem-solving strategies when experimenting with the skills, materials, processes, and techniques used in drama and dance both individually and with others

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
D3.1 use problem-solving skills and their imagination to create drama and dance (e.g., try out different voices for parts of a story or chant; find different ways to move to music, trying to connect the movement with the mood and speed of the music; create a sequence of movements)	"The troll needs a deep growly voice – he would talk like this. But the littlest Billy Goat Gruff would talk like this (in a high squeaky voice)." "My dance has a pattern – skip, skip, slide, slide, turn, turn, turn." "This is a story from my language." Doing A child responds to changes in the tempo and mood of a piece of music from a different culture by altering his body level and the type and speed of his movements.	"How do you think the second Billy Goat Gruff would speak?" "I saw that you were trying to move your feet in a new way. How could you move your arms too?" Challenging "How can you change your dance using the same steps?" Extending "How can you act out the same story without using any words?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
D3.2 dramatize rhymes, stories, legends, and folk tales from various cultures, including their own (e.g., use actions, pictures, words, or puppets to tell a story at the dramatic play centre or at the block centre)	Representing A small group of children use the felt board pieces and the felt board to retell familiar stories. Some children create their own endings.	

Overall Expectation D4: express responses to a variety of forms of drama and dance, including those from other cultures

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
D4.1 express their responses to drama and dance (e.g., by moving, by making connections to their experiences with drama and dance, by talking about drama and dance)	Saying "He scared me when he yelled 'Trip trap trip trap'." "That puppet show we saw was just like the story we read."	Responding "How was the puppet show the same as the story? How was it different? What else did it remind you of?" "What else about the troll was scary?"

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	After seeing a production of "The Three Billy Goats Gruff", several of the children talk about how the troll's costume, movements, and deep growly voice were scary for them. Representing A child uses a series of faces that express a variety of emotions to identify how she feels at different point in a dramatic presentation.	Challenging "How would your reactions to the play change if the troll had talked in a soft squeaky voice and been dressed in a pretty flowery costume?" Extending "Do you agree with how the troll acted? What could he have done differently? What could the Billy Goats Gruff have done differently?"

MUSIC

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- M1. demonstrate an awareness of themselves as musicians through engaging in music activities;
- M2. demonstrate basic knowledge and skills gained through exposure to music and music activities;
- use problem-solving strategies when experimenting with the skills, materials, processes, and techniques used in music both individually and with others;
- M4. express responses to a variety of forms of music, including those from other cultures;
- M5. communicate their ideas through music.

Overall Expectation M1: demonstrate an awareness of themselves as musicians through engaging in music activities

As children progress through the Full-D Early Learning–Kindergarten program,		Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
M1.1 demonstrate an awareness of personal interests and a sense of accomplishment in music (e.g., contribute their own idea to a class song; create their own accompaniment to a song) M1.2 explore a variety of tools and materials of their own choice (e.g., spoons, castanets, rhythm sticks, music software) to create music in familiar and new ways	Doing Two children work together at the computer using simple music software to create and record a song. Representing Children use shakers that they have made at a learning	Responding "What tools or materials can we use to make the sound of the wind?" "You said you liked that song. What is it that you like about it?" Challenging A member of the EL–K team joins the children at the computer as they create and record their song. "How did you decide what kind of song to create?" "How did you decide what kinds of sounds to use in your song?" Extending A member of the EL–K team suggests that the children upload their new song to the class web page and facilitates the process.

Overall Expectation M2: demonstrate basic knowledge and skills gained through exposure to music and music activities

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: - Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
M2.1 explore different elements (e.g., beat, sound quality, speed, volume) of music (e.g., clap the beat of a song; tap their feet on carpet and then on tile, and compare the sounds; experiment with different instruments to accompany a song)	"That's a drum. It made a loud boom." "This song keeps getting faster." "I'm keeping the beat with my foot." Doing During their explorations, children discover that a wooden block makes a sound when it hits the floor. They decide to explore further and drop the block on the carpet and then onto another block. Representing A child uses computer software to add sound effects to a story she is writing.	"What different kinds of sounds can we make with the instruments?" "What instruments could we use to make a sound like horses' hooves?" "I wonder what this song would sound like if we sang it faster and softer." "I wonder why the singer sang the last verse quickly." Challenging "Use the symbols we have created to show the beats and rests in your favourite song." Extending To reinforce patterning concepts, a member of the EL–K team asks the children to identify patterns in the words, melody, beat, and rhythm of familiar songs and poems that have been printed on chart paper and hung around the room.

Overall Expectation M3: use problem-solving strategies when experimenting with the skills, materials, processes, and techniques used in music both individually and with others

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
M3.1 use problem-solving skills and their imagination to create music (e.g., experiment with different instruments to create a rhythm pattern to accompany a familiar song; contribute to making a variation on a familiar song with the class)	"We tried it this way and it didn't work, so we tried again and this is what it sounds like." "We changed this part so it sounds different." Doing A small group of children create a musical version of a favourite pattern book for the whole class to present at the school assembly. Representing Two children decide to work with different rhythm instruments. One plays a rhythm and the other echoes it. They continue to try to represent each other's rhythm patterns.	"How can you change your voice when we sing the song this time?" "What rhythms can we make with our bodies?" Challenging "We should use your song to share at our next assembly. You said you would like to add some instruments. Which ones would you like to add?" Extending "Tell me how you would change this song so that it would help a baby go to sleep."

Overall Expectation M4: express responses to a variety of forms of music, including those from other cultures

Professional Learning Conversations

The EL-K team has been reading about music education for young children. Informed by their reading, team members discuss how music supports the development of reading and reasoning skills, math and science concepts, and enhances self-esteem. The team decides to focus first on exploring different rhythms in music as a means to support the development of reading skills. They decide to use music from the various cultures of children in the classroom, in order to help them to make connections to their prior knowledge and experiences. Parents volunteer to share recorded music associated with their culture. Children show the rhythms in different ways and compare them to poems, chants, and songs that have been read in class. Team members observe, record, and discuss observations for future planning.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
M4.1 express their responses to music by moving, by making connections to their own experiences, or by talking about the musical form M4.2 respond to music from various cultures, including their own (e.g., folk songs, Aboriginal chants, songs in different languages)	"I heard that song at a wedding. It makes me want to dance." "I can sing a song in my language." "That music sounds very sad. It makes me think of the statue of the soldier in the park. He looked sad too." Doing At the visual art centre, children hear the music that the EL–K team has put on in the background and move their paint brushes to the rhythm and flow of different selections of music. Representing A small group of children describe their personal responses to the same piece of music. The EL–K team records their responses in an interactive writing activity.	Responding "What does this song remind you of or make you think of?" "How did you feel when you heard the music?" Challenging "I notice that you used the paints to show how the background music made you feel. How could you move your body to do the same thing?" Extending The EL-K team writes the words to some folk songs from different cultures on chart paper. They ask the children what they notice about the words.

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Overall Expectation M5: communicate their ideas through music

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
M5.1 communicate their ideas about something (e.g., a book, an experience, a painting) through sounds, rhythms, and music (e.g., create a song or a chant, create sound effects, use rhythms to enhance a song or poem)	"We made our sticks sound like thunder." "That storybook is like a song because" Doing While listening to a read-aloud poem, a child silently clasps his hands to the rhythm of the words. Representing A group of children create a chant to tell the rest of the class that it is time to tidy up.	Responding The EL–K team models for the children how to use music to communicate their responses to a new book: "You said the story made you feel sad. You beat the drum very slowly as I read. That made a very sad sound." Challenging The EL–K team shows the children a series of paintings from different cultures and ask each child to create a rhythm that is a good "accompaniment" to the painting. Extending The EL–K team works with the children to facilitate the creation of a chant to accompany the rhythms they have made to "accompany" the paintings.

VISUAL ARTS

Overall Expectations

By the end of the Full-Day Early Learning-Kindergarten program, children will:

- V1. demonstrate an awareness of themselves as artists through engaging in activities in visual arts;
- demonstrate basic knowledge and skills gained through exposure to visual arts and activities in visual arts;
- use problem-solving strategies when experimenting with the skills, materials, processes, and techniques used in visual arts both individually and with others;
- V4. express responses to a variety of visual art forms, including those from other cultures;
- V5. communicate their ideas through various visual art forms.

Overall Expectation V1: demonstrate an awareness of themselves as artists through engaging in activities in visual arts

Professional Learning Conversations

After some professional reading, members of the EL-K team decide that their current arts and crafts practices (e.g., the use of pre-cut shapes and requiring all children to create the same product) limit the children's artistic development. They discuss how they can address this problem. They decide to put some materials with common attributes (e.g., shiny items) at the visual arts centre and observe and listen as children form their own ideas of what to create.

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
V1.1 demonstrate an awareness of personal interests and a sense of accomplishment in visual arts (e.g., contribute pages to a class book using their own ideas; offer to make a puppet for a play; create a sculpture from clay)	Saying "I used to make my people like that. Now I make them this way." "I like the picture in our front hall. It has cats in it. I like cats."	Responding "I see the details you are adding to your people now." "You worked so hard on your puppets." "What would you like to use to make your picture?"

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Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning–Kindergarten (EL–K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Their Learning	Intentional Interactions
	Doing Some children create illustrations for the class art book using a variety of media. Representing A child uses drawings to recount the class trip to the grocery store.	Challenging "What else could you add to your drawing to show?" "What do you notice about your picture?" Extending "If you could make this again, what would you do differently?"

Overall Expectation V2: demonstrate basic knowledge and skills gained through exposure to visual arts and activities in visual arts

Professional Learning Conversations

The EL–K team invites a parent who is an artist working in various media to discuss with team members their plans to improve their visual arts program. Together, they map out a plan to provide opportunities for the children to explore photography and clay sculpture in addition to the usual painting and drawing. They also discuss plans for the parent/artist to work with the team and the children one day a week to further the team's knowledge about observing and assessing the children's accomplishments. Throughout the process, the team works with the children to collect samples of their paintings, photographs, and sculptures, for a "Gallery Opening" to be held at the end of the term.

Specific Expectations	Making Connections: Ways in Which Children Might Demonstrate	Making Connections: Early Learning-Kindergarten (EL-K) Team's
As children progress through the Full-Day Early Learning–Kindergarten program, they:	Ways in Which Children Might Demonstrate Their Learning	Intentional Interactions
v2.1 explore a variety of tools, materials, and processes of their own choice to create visual art forms in familiar and new ways (e.g., use natural and recycled materials at a learning centre) v2.2 explore different elements of design (e.g., colour, line, shape, texture, form) in visual arts	"I used leaves 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." "I cut a zigzag line." "I made different shapes with play dough." Doing After looking at a book whose illustrations were done in clay, a child works at the modelling centre using tools and equipment from various centres in the classroom to replicate the textures in the book's illustrations. Representing Children use a variety of materials (different kinds of paper, fabrics of various colours and textures, found materials) to make a collage.	"I noticed the different kinds of lines you made in your drawing." The EL-K team asks clarifying questions about works of art produced by the children in order to better understand how to support them and move them forward: "Why did you (use yellow circles for the apples, make the puppet's hair out of string)?" "What were you thinking about?" Challenging After observing the paintings done by the children, the EL-K team changes the materials available. They replace the large paint brushes with medium- and small-sized brushes and add a variety of small paint rollers with different textures. They also provide small containers in which the children can explore colour mixing. Extending "How could you show that the car in your drawing is moving fast?" "You used many different textures in your collage. How could you use recycled or natural materials to get a different effect?"

Overall Expectation V3: use problem-solving strategies when experimenting with the skills, materials, processes, and techniques used in visual arts both individually and with others

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions
V3.1 use problem-solving skills and their imagination to create visual art forms (e.g., choose materials to make a three-dimensional structure stable; choose an alternative way to fasten their materials if the first way is unsuccessful)	"I found a way to stick these two together." "Our sculpture keeps falling apart." "I want to make the schoolyard look all bumpy." Doing The EL-K team had placed books at the block centre with illustrations of buildings from around the world. After looking through the book, a small group of children use found materials to re-create one of the buildings. Representing After listening to a piece of music, children at the visual arts centre create art works to show how the music made them feel (e.g., sad, happy, scared).	"I wonder how you could make sure your sculpture doesn't collapse." "I notice that you are looking at the illustrations in the book we read this morning. How did the illustrator make the sidewalks look rough?" Challenging "How can you make your puppet look like its arms and legs are moving?" Extending "How did you decide what materials to use for your sculpture? What did you do when they didn't work?"

Overall Expectation V4: express responses to a variety of visual art forms, including those from other cultures

Professional Learning Conversations

EL-K team members discuss the children's responses to paintings that have been displayed in the classroom. They asked children questions such as "What do you notice? What do you think about ...? How does the painting make you feel?" and recorded their responses. The team also sets up a recording device to capture children's ideas when a team member is not present. The team's subsequent conversations focused on commonalities in the responses, and where they saw gaps in the children's abilities to respond to the art works. Based on the gaps, the team discusses ways in which they can enhance the children's skills in understanding works of art.

As children progress through the Full-Day Early Learning–Kindergarten program, they:		Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning-Kindergarten (EL-K) Team's Intentional Interactions

Overall Expectation V5: communicate their ideas through various visual art forms

As children progress through the Full-Day Early Learning–Kindergarten program, they:	Making Connections: Ways in Which Children Might Demonstrate Their Learning	Making Connections: Early Learning–Kindergarten (EL–K) Team's Intentional Interactions
v5.1 communicate their understanding of something (e.g., a familiar story, an experience, a song, a play) by representing their ideas and feelings through visual art	"I'm painting a picture of the girl in the story we read." "I'm making a scary mask for the troll." Doing After viewing a close-up photograph of a goldfish, a child makes a picture of the class's pet fish, using repeated curved lines for its scales. Representing "That's me in this painting. I'm wearing a yellow shirt 'cause I'm happy."	"I notice that you are using your puppets to re-tell the story we read yesterday." "How will you make your mask look scary?" Challenging "How can you use colours to show how children in our class were feeling when (we were dancing, the class fish died, we feel tired)." Extending The EL-K team works with a small group of children to further explore the element of colour in visual art. The children create paintings that make use of one particular colour and then ask other children to tell them how the paintings make them feel.

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