Curriculum Expectations
GRADE 1

for

English Language
Mathematics
Science and Technology
Social Studies
Health & Physical Education
The Arts

2007

Oral Communication

Overall Expectations

1e1   1. listen in order to understand and respond appropriately in a variety of situations for a variety of purposes;

1e2   2. use speaking skills and strategies appropriately to communicate with different audiences for a variety of purposes;

1e3   3. reflect on and identify their strengths as listeners and speakers, areas for improvement, and the strategies they found most helpful in oral communication situations.

1. Listening to Understand

1e4   Purpose
1.1 identify purposes for listening in a few different situations, formal and informal *(e.g., to hear the sounds of language in songs, chants, and poems; to interact socially with classmates; to enjoy and understand a story read aloud by the teacher; to follow simple directions in large- and small-group settings; to exchange ideas with a peer in a paired sharing or small group)*

1e5   Active Listening Strategies
1.2 demonstrate an understanding of appropriate listening behaviour by using active listening strategies in a few different situations *(e.g., listen without interrupting and wait their turn to speak; show that they are paying attention and are interested by looking at the speaker, nodding, or asking relevant questions)*

1e6   Comprehension Strategies
1.3 identify a few listening comprehension strategies and use them before, during, and after listening in order to understand and clarify the meaning of oral texts, initially with support and direction *(e.g., use background knowledge, familiar word order, and context to make predictions about content or vocabulary before listening to an oral text; think about what known words might be related to the topic; ask questions to check understanding during and after listening; create mental pictures while listening to a readaloud and draw or talk about what they visualized; retell the important information presented in a class discussion or a think-pair-share activity)*

1e7   Demonstrating Understanding
1.4 demonstrate an understanding of the information and ideas in oral texts by retelling the story or restating the information, including the main idea *(e.g., use time-order words, such as* first, then, next, finally*, to retell a story they have heard; restate information from a movie about community workers, including a topic statement and several supporting details)*

1e8   Making Inferences/Interpreting Texts
1.5 use stated and implied information and ideas in oral texts, initially with support and direction, to make simple inferences and reasonable predictions *(e.g., attend to the words being spoken and also use personal experience and the speaker's intonation and facial expression to understand what is being said)*
Teacher prompt: "The boy said, 'You broke my airplane!' What helps you understand how he might be feeling? What do you think he might do next?"

1e9   Extending Understanding
1.6 extend understanding of oral texts by connecting the ideas in them to their own knowledge and experience; to other familiar texts, including print and visual texts; and to the world around them *(e.g., make personal connections between their own ideas about a topic and the ideas in an oral text; identify other texts that have similar elements or content)*

1e10   Analysing Texts
1.7 identify words or phrases that indicate whether an oral text is fact or fiction, initially with support and direction *(e.g., a personal recount might start "Last year in the summer holidays…" while a fictional story might start "Once upon a time…")*

1e11   Point of View
1.8 begin to identify, with support and direction, who is speaking in an oral text and the point of view expressed by the speaker *(e.g., the narrator may be a character in a story or an expert on the topic of an informational talk; the speaker may be recounting a personal anecdote or sharing a personal opinion)*
Teacher prompts: "Who is telling this story/presenting this information? What words/clues helped you figure that out?" "What do we know about the speaker?" "How might the story be different if another character were telling it?"

1e12   Presentation Strategies
1.9 begin to identify some of the presentation strategies used in oral texts and explain how they influence the audience *(e.g., the use of differences in tone and pitch for different characters in a story; the use of props to engage the audience)*
Teacher prompts: "How did the speaker use his/her voice to make you like/not like a character?" "Why do you think the speaker used the puppets when he was speaking?"

2. Speaking to Communicate

1e13   Purpose
2.1 identify a few purposes for speaking *(e.g., to express needs to peers and the teacher; to establish positive personal and learning relationships with peers; to activate prior knowledge and make connections before listening; to retell stories and recount personal experiences to the class; to ask questions or explore solutions to problems in small-group and paired activities; to share ideas and information that contribute to understanding in large and small groups; to manipulate the sounds of language in songs, chants, and poems)*

1e14   Interactive Strategies
2.2 demonstrate an understanding of appropriate speaking behaviour in a few different situations, including paired sharing and small- and largegroup discussions *(e.g., give other group members an opportunity to speak; respond positively to the contributions of others; stay on topic and speak to the point)*

1e15   Clarity and Coherence
2.3 communicate ideas and information orally in a clear, coherent manner *(e.g., use a logical framework such as a beginning, middle, and end sequence to retell a story read aloud by the teacher)*

1e16   Appropriate Language
2.4 choose appropriate words to communicate their meaning accurately and engage the interest of their audience *(e.g., choose words relevant to the topic from the full range of their vocabulary, including new words used regularly in the classroom; use descriptive adjectives to clarify and add interest to a narrative; use inclusive language that conveys respect for all people)*

1e17   Vocal Skills and Strategies
2.5 begin to identify some vocal effects, including tone, pace, pitch, and volume, and use them appropriately to help communicate their meaning *(e.g., increase volume to emphasize important points or to communicate to a large audience)*

1e18   Non-Verbal Cues
2.6 identify some non-verbal cues, including facial expression, gestures, and eye contact, and use them in oral communications, appropriately and with sensitivity towards cultural differences, to help convey their meaning

1e19   Visual Aids
2.7 use one or more appropriate visual aids *(e.g., pictures, photographs, props, puppets, masks)* to support or enhance oral presentations *(e.g., use a set of plastic animals during an oral recount about a visit to a zoo)*

3. Reflecting on Oral Communication Skills and Strategies

1e20   Metacognition
3.1 begin to identify, with support and direction, a few strategies they found helpful before, during, and after listening and speaking
Teacher prompts: "How do you know what to listen for?" "What could you do after you listen to check and see if you understood what you heard?" "What could you do if you didn't understand what you heard?" "What do you think about before you begin to talk?" "When you are talking, how can you tell if the audience
understands?" "What could you do to help the audience understand what you are saying?"

1e21   Interconnected Skills
3.2 begin to identify how their skills as viewers, representers, readers, and writers help them improve their oral communication skills
Teacher prompts: "How do you learn new words that you can use when you are speaking?" "What words have you learned in the books you are reading that help you understand what you hear or that you can use while you are speaking?"

Reading

Overall Expectations

1e22   1. read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;

1e23   2. recognize a variety of text forms, text features, and stylistic elements and demonstrate understanding of how they help communicate meaning;

1e24   3. use knowledge of words and cueing systems to read fluently;

1e25   4. reflect on and identify their strengths as readers, areas for improvement, and the strategies they found most helpful before, during, and after reading.

1. Reading for Meaning

1e26   Variety of Texts
1.1 read a few different types of literary texts*(e.g., pattern books, rhymes, books from home, simple fiction stories)*, graphic texts *(e.g., calendars, environmental print, signs),* and informational texts *(e.g., morning messages, strategy charts, instructions, simple non-fiction books, labels)*

1e27   Purpose
1.2 identify a few different purposes for reading and choose reading materials appropriate for those purposes *(e.g., picture books for entertainment, information, or reflection; simple factual and visual texts for information; magazines for entertainment and interest)*

1e28
Comprehension Strategies
1.3 identify a few reading comprehension strategies and use them before, during, and after reading to understand texts, initially with support and direction *(e.g., activate prior knowledge by brainstorming about the cover, title page, or topic; describe how they visualize a character or scene in a text; ask questions about information or ideas presented in a text:* I wonder if…?, What if…? Why did…?; *identify important ideas in a text)*

Teacher prompt: "What do you think is the most important thing to remember so far about this text/topic? Why do you think it is important?"

1e29
Demonstrating Understanding
1.4 demonstrate understanding of a text by retelling the story or restating information from the text, including the main idea *(e.g., retell a story or restate facts, including the main idea and important events, in accurate time order; role-play or dramatize a story or informational text using puppets or props)*

1e30
Making Inferences/Interpreting Texts
1.5 use stated and implied information and ideas in texts, initially with support and direction, to make simple inferences and reasonable predictions about them

Teacher prompt: "The text tells us that the girl broke her brother's toy airplane. Think about what you know about the boy so far. Predict what might happen next. Is there information in the illustration that can help you make your prediction?"

1e31
Extending Understanding
1.6 extend understanding of texts by connecting the ideas in them to their own knowledge and experience, to other familiar texts, and to the world around them *(e.g., identify personally significant events in stories, such as losing a tooth or getting a pet; relate information in a text to previous experiences, other familiar texts, movies, or trips)*

Teacher prompts: "What does this text remind you of in your life?" "Now that we have researched [topic X], what have we learned?" "Does this book remind you of a story that you have been told?"

1e32
Analysing Texts
1.7 identify the main idea and a few elements of texts, initially with support and direction *(e.g., narrative:* characters, setting, problem/solution; *information text:* introductory statement, facts, photographs*)*

1e33
Responding to and Evaluating Texts
1.8 express personal thoughts and feelings about what has been read *(e.g., through role playing, drama, visual arts, music, discussion; by developing a plan to act on issues raised in the text)*

Teacher prompts: "How does the ending of this story make you feel?" "Do you think there are recycling ideas in the text that we could use in our classroom?" "Show me how you were feeling when…" "What would you say if you were…?"

1e34
Point of View
1.9 begin to identify, with support and direction, the speaker and the point of view presented in a text and suggest a possible alternative perspective *(e.g., dramatize the story, taking on the role of different characters; create drawings, paintings, or models to represent the perspective of different characters in a text)*

Teacher prompts: "Who is talking in this story? Would the story be different if someone else were talking?" "What is the author telling us about this topic?"

2. Understanding Form and Style

1e35
Text Forms
2.1 identify and describe the characteristics of a few simple text forms, with a focus on literary texts such as a simple fictional story *(e.g., characters, setting, events, problem/solution)*, graphic texts such as a calendar *(e.g., names of months and days, a grid, numbers)*, and informational texts such as a simple "All About____" book *(e.g., labels, headings, pictures)*

1e36   Text Patterns

2.2 recognize simple organizational patterns in texts of different types and explain, initially with support and direction, how the patterns help readers understand the texts *(e.g., signal words such as* first, second, then, finally *help to identify time order or sequence)*

1e37   Text Features

2.3 identify some text features *(e.g., illustrations, symbols, photographs, title, page number, table of contents)* and explain how they help readers understand texts

Teacher prompts: "How does the title help you understand what you are going to be reading?" "How does an illustration or photograph help you understand what you are reading?"

1e38   Elements of Style

2.4 identify some simple elements of style, including voice and word choice, and explain, initially with support and direction, how they help readers understand texts *(e.g., descriptive words help the reader make better mind pictures of the characters or setting in a story)*

Teacher prompt: "What words in the text helped you make a picture in your head?"

3. Reading With Fluency

1e39   Reading Familiar Words

3.1 automatically read and understand some high-frequency words and words of personal interest or significance, in a variety of reading contexts *(e.g., the same word in different graphic representations such as: on the word wall; in shared-, guided-, and independent-reading texts; on shared- and interactive-writing charts; in personal writing; in a variety of fonts)*

1e40   Reading Unfamiliar Words

3.2 predict the meaning of and solve unfamiliar words using different types of cues, including:
- semantic (meaning) cues *(e.g., familiar words, phrases, sentences, and visuals that activate existing knowledge of oral and written language)* ;
- syntactic (language structure) cues *(e.g., predictable word order, predictable language patterns, punctuation)* ;
- graphophonic (phonological and graphic) cues *(e.g., blending and segmenting of individual sounds in words; visual features of words such as shape and orientation; sound-letter relationships for initial, final, and medial sounds; onset and rime; common spelling patterns; words within words)*

Teacher prompt (for cross-checking of cues): "It looks right and sounds right, but does it make sense?"

1e41   Reading Fluently

3.3 read appropriate, familiar texts at a sufficient rate and with sufficient expression to convey the sense of the text to the reader *(e.g., make oral reading of a role in a simple readers' theatre script sound like natural speech)*

4. Reflecting on Reading Skills and Strategies

1e42   4.1 begin to identify, with support and direction, a few strategies they found helpful before, during, and after reading

Teacher prompts: "What do you do to get ready to read a new text?" "What do you do if your reading doesn't make sense to you?" "When you come to a word you don't know, what do you do?" "What strategies help you the most when you are reading?"

1e43 Interconnected Skills
4.2 explain, initially with support and direction, how their skills in listening, speaking, writing, viewing, and representing help them make sense of what they read *(e.g., reading a text independently is easier after hearing it read aloud and/or talking about it in class)*
Teacher prompts: "How does listening to someone else read help you become a better reader?" "How does talking to someone else about what you are reading help you as a reader?" "How does looking at the illustrations help you make sense of what you are reading?"

Writing

Overall Expectations

1e44 1. generate, gather, and organize ideas and Information to write for an intended purpose and audience;

1e45 2. draft and revise their writing, using a variety of informational, literary, and graphic forms and stylistic elements appropriate for the purpose and audience;

1e46 3. use editing, proofreading, and publishing skills and strategies, and knowledge of language conventions, to correct errors, refine expression, and present their work effectively;

1e47 4. reflect on and identify their strengths as writers, areas for improvement, and the strategies they found most helpful at different stages in the writing process.

1. Developing and Organizing Content

1e48 Purpose and Audience
1.1 identify the topic, purpose, audience, and form for writing, initially with support and direction *(e.g., a personal recount of a past experience, including pictures, to share with family or friends; an "All About the Seasons" book for the class library; labels and captions for a pictograph to share findings with a group after a math investigation)*
Teacher prompts: "What is your writing about?" "Why are you writing?" "Whom are you writing for?"

1e49 Developing Ideas
1.2 generate ideas about a potential topic, using a variety of strategies and resources *(e.g., ask questions to identify personal experiences, prior knowledge, and information needs; brainstorm ideas with the class)*

1e50 Research
1.3 gather information to support ideas for writing in a variety of ways and/or from a variety of sources *(e.g., from listening to stories told by family members; from paired sharing with a peer; from observations; from various texts, including teacher read-alouds, mentor texts, and shared-, guided-, and independent-reading texts)*

1e51 Classifying Ideas
1.4 sort ideas and information for their writing in a variety of ways, with support and direction *(e.g., by using pictures, labels, key words, hand-drawn or computer graphics, or simple graphic organizers such as a web, a list, or a five-W's framework:* who, what, when, where, why

1e52 Organizing Ideas
1.5 identify and order main ideas and supporting details, initially with support and direction, using simple graphic organizers *(e.g., a story ladder, sequence chart)* and simple organizational patterns *(e.g., time order:* first, then, next, finally; *order of importance; beginning, middle, and end)*

1e53   Review
              1.6 determine, after consultation with the teacher and peers, whether the ideas and information they
              have gathered are suitable for the purpose *(e.g., use pictures and words to explain their material
              to a classmate and ask for feedback)*

2. Using Knowledge of Form and Style in Writing

1e54   Form
              2.1 write short texts using a few simple forms *(e.g., a recount of personally significant
              experiences; a simple report on topics of interest to the writer and identified in non-fiction
              reading; "How to"books identifying the steps in a procedure such as "How to Make
              Applesauce", including pictures, symbols, and words; a story modelled on characters and
              events from stories read; their own variation on a familiar poem, chant, or song; a poster for
              the classroom)*

1e55   Voice
              2.2 begin to establish a personal voice in their writing by using pictures and words that convey their
              attitude or feeling towards the subject or audience *(e.g., use pictures and words that project
              interest or enthusiasm)*

1e56   Word Choice
              2.3 use familiar words and phrases to convey a clear meaning *(e.g., some simple, familiar
              descriptive adjectives of size, feeling, or colour:* The *black* dog was *happy.)*

1e57   Sentence Fluency
              2.4 write simple but complete sentences that make sense

1e58   Point of View
              2.5 begin to identify, with support and direction, their point of view and one possible different point of
              view about the topic
              Teacher prompts: "How do you feel about this topic?" "How do you think your friend feels about this
              topic?" "How can you convey your feelings to your audience?"

1e59   Preparing for Revision
              2.6 identify elements of their writing that need improvement, including content, organization, and style,
              using feedback from the teacher and peers
              Teacher prompts: "Does this writing make sense to you?" "Does it say what you wanted to say?"

1e60   Revision
              2.7 make simple revisions to improve the content, clarity, and interest of their written work, using a
              few simple strategies *(e.g., cut out words or sentences and reorder them to improve clarity;
              insert words from oral vocabulary and the class word wall or word webs to clarify meaning
              and/or add interest)*

1e61   Producing Drafts
              2.8 produce revised draft pieces of writing to meet criteria identified by the teacher, based on the
              expectations

3. Applying Knowledge of Language Conventions and Presenting Written Work Effectively

1e62   Spelling Familiar Words
              3.1 spell some high-frequency words correctly *(e.g., words from their oral vocabulary, the class
              word wall, and shared-, guided-, and independent-reading texts)*

1e63   Spelling Unfamiliar Words
3.2 spell unfamiliar words using a variety of strategies that involve understanding sound-symbol relationships, word structures, and word meanings *(e.g., segment words to identify and record individual sound-symbol correspondences, including short vowels and simple long-vowel patterns; listen for rhyming patterns; look for common letter sequences and onset and rime in frequently used words; make analogies between words that look similar; illustrate words to link meaning to spelling)*

1e64   Vocabulary
3.3 confirm spellings and word meanings or word choice using one or two resources *(e.g., find pictures or words in a picture pictionary; locate words on an alphabetical word wall using first letter; refer to class-created word webs posted in the classroom)*

1e65   Punctuation
3.4 use punctuation to help communicate their intended meaning, with a focus on the use of: a capital letter at the beginning of a sentence; a period, question mark, or exclamation mark at the end

1e66   Grammar
3.5 use parts of speech appropriately to communicate their meaning clearly, with a focus on the use of: nouns for names of people, places, and things; the personal subject pronouns *I, you, he, she, it, we, they*; verbs to tell what they do and feel; some adjectives; and simple prepositions of place *(e.g., in, on, at, to)*

1e67   Proofreading
3.6 proofread and correct their writing using a simple checklist or a few guiding questions posted by the teacher for reference*(e.g., Can I read it? Does it "sound right"? Does it make sense? Are my word wall words spelled correctly?)*

1e68   Publishing
3.7 use some appropriate elements of effective presentation in the finished product, such as print, different fonts, graphics, and layout *(e.g., use drawings, photographs, or simple labels to clarify text; print legibly; leave spaces between words)*

1e69   Producing Finished Works
3.8 produce pieces of published work to meet criteria identified by the teacher, based on the expectations

4. Reflecting on Writing Skills and Strategies

1e70   Metacognition
4.1 identify some strategies they found helpful before, during, and after writing *(e.g., during a regular writing conference, respond to teacher prompts about what strategies helped at a specific phase in the writing process; identify strategies used before, during, and after writing on a class anchor chart; identify a strategy for future use on a strategy bookmark or chart)*
Teacher prompts: "What strategy helped you organize your ideas?" "How did you know what words were missing?" "What helped you know what to do when you finished your first draft?"

1e71   Interconnected Skills
4.2 describe, with prompting by the teacher, how some of their skills in listening, speaking, reading, viewing, and representing help in their development as writers
Teacher prompts: "How does what you know about reading and different kinds of books help you when you are writing?" "In what way do you think listening to someone else's ideas might help you with your writing?"

1e72   Portfolio
4.3 select pieces of writing they think show their best work and explain the reasons for their selection

Media Literacy

Overall Expectations

1e73   1. demonstrate an understanding of a variety of media texts;

1e74   2. identify some media forms and explain how the conventions and techniques associated with them are used to create meaning;

1e75   3. create a variety of media texts for different purposes and audiences, using appropriate forms, conventions, and techniques;

1e76   4. reflect on and identify their strengths as media interpreters and creators, areas for improvement, and the strategies they found most helpful in understanding and creating media texts.

1. Understanding Media Texts

1e77   Purpose and Audience
1.1 identify the purpose and intended audience of some simple media texts *(e.g., this movie tells a story to entertain children; this sign gives information to travellers)*
Teacher prompt: "Who would watch/listen to this? Why?"

1e78   Making Inferences/Interpreting Messages
1.2 identify overt and implied messages,
initially with support and direction, in simple media texts *(e.g.,*
• *overt message of a toy advertisement showing two boys playing with a car:* This toy is fun; *implied message:* This toy is for boys;*)*
• *overt message of a cartoon:* the violence here is funny and doesn't hurt anyone; *implied message:* violence is acceptable*)*
Teacher prompt: "Let's try to think of an advertisement made for a specific audience – for example, for girls or boys, for mothers, or for teenagers. How do we know that the advertisement is for that audience?"

1e79   Responding to and Evaluating Texts
1.3 express personal thoughts and feelings about some simple media works *(e.g., state whether they like or dislike a character in a cartoon, song, or movie; draw a picture of the character in a song)*
Teacher prompt: "What do you like/not like about the story told in this movie? What was your favourite part? How did it make you feel?" "Did the characters in this cartoon use violence to solve problems? Was the violence funny? Is this a good way to solve problems?"

1e80   Audience Responses
1.4 describe how different audiences might respond to specific media texts
Teacher prompt: "Would your friends or parents like the same songs, movies, stories, games that you like? Why? Why not?"

1e81   Point of View
1.5 begin to identify, with support and direction, whose point of view is presented in a simple media text and suggest a possible alternative perspective *(e.g., a cartoon told from the point of view of a mouse might be told from a cat's viewpoint)*

1e82　　　Production Perspectives

1.6 identify, with support and direction, who makes some of the simple media texts with which they are familiar, and why those texts are produced *(e.g., the government has traffic signs made to protect the safety of travellers and pedestrians; film companies hire manufacturers to produce toys and other products based on popular children's movies and television programs to sell to children)*

Teacher prompt: "Your doll is the main character from your favourite TV show. Do you think the same people who make the TV show made the doll, too? Are there any marks on your doll that tell us who made it?"

2. Understanding Media Forms, Conventions, and Techniques

1e83　　　Form

2.1 identify some of the elements and characteristics of a few simple media forms *(e.g., cartoon:* colour, music, animation; *picture book:* cover, printed words, pictures*)*

Teacher prompt: "How are books different from cartoons? How are they the same?"

1e84　　　Conventions and Techniques

2.2 identify, initially with support and direction, the conventions and techniques used in some familiar media forms *(e.g., specific pictures and colours are used in traffic signs to make messages immediately recognizable to drivers and pedestrians; icons are used on computer screens instead of words to help users locate computer functions; jingles and slogans are used in television advertisements to make the messages memorable; background music may be used in a movie to communicate a mood such as suspense or happiness)*

Teacher prompts: "How do colour and size help you notice a sign?" "What happens to the music when the villain appears? What does that tell you? How does it affect you?"

3. Creating Media Texts

1e85　　　Purpose and Audience

3.1 identify the topic, purpose, and audience for media texts they plan to create *(e.g., a media text to explain the importance of hand-washing to a Kindergarten class, or to tell the story of a class trip to parents or visitors)*

Teacher prompt: "How can we use photographs to tell the story of our trip? What could we use in addition to the photographs to help visitors understand what we did on our trip?"

1e86　　　Form

3.2 identify an appropriate form to suit the purpose and audience for a media text they plan to create

Teacher prompt: "Which would be a better way to tell the school about an upcoming book sale – a poster or a P.A. announcement by a student? Why?"

1e87　　　Conventions and Techniques

3.3 identify conventions and techniques appropriate to the form chosen for a media text they plan to create *(e.g., tape-recorded music to reflect the changing scenes or moods in a picture book)*

Teacher prompt: "How will the music help people understand the book?"

1e88　　　Producing Media Texts

3.4 produce some short media texts for specific purposes and audiences, using a few simple media forms and appropriate conventions and techniques *(e.g.,*

• *a tape-recorded soundtrack for a story*
• *a sequence of pictures and/or photographs that tells a story*
• *a sign or poster for their classroom or the school*
• *a selection of images downloaded from the Internet to accompany a science project*
• *a collage of items a story character might enjoy or own*
• *an enactment of a scene about a character from a favourite movie)*

4. Reflecting on Media Literacy Skills and Strategies

1e89   Metacognition
          4.1 identify, initially with support and direction, what strategies they found most helpful in making sense of and creating media texts
          Teacher prompts: "How did thinking about your audience help you create your poster?" "How did looking at other posters help you come up with ideas for this poster?"

1e90   Interconnected Skills
          4.2 begin to explain, initially with support and direction, how their skills in listening, speaking, reading, and writing help them to make sense of and produce media texts
          Teacher prompts: "How did talking about the project with other students help you create a better poster?" "What language skills did you use in creating this media text?"

Mathematical Process Expectations

Problem Solving

1m1 • apply developing problem-solving strategies as they pose and solve problems and conduct investigations, to help deepen their mathematical understanding;

Reasoning And Proving

1m2 • apply developing reasoning skills (e.g., pattern recognition, classification) to make and investigate conjectures (e.g., through discussion with others);

Reflecting

1m3

• 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., by explaining to others why they think their solution is correct);

Selecting Tools and Computational Strategies

1m4 • select and use a variety of concrete, visual, and electronic learning tools and appropriate computational strategies to investigate mathematical ideas and to solve problems;

Connecting

1m5 • make connections among simple mathematical concepts and procedures, and relate mathematical ideas to situations drawn from everyday contexts;

Representing

1m6 • create basic representations of simple mathematical ideas (e.g., using concrete materials; physical actions, such as hopping or clapping; pictures; numbers; diagrams; invented symbols), make connections among them, and apply them to solve problems;

Communicating

1m7 • communicate mathematical thinking orally, visually, and in writing, using everyday language, a developing mathematical vocabulary, and a variety of representations.

Number Sense and Numeration

Overall Expectations

1m8 • read, represent, compare, and order whole numbers to 50, and use concrete materials toinvestigate fractions and money amounts;

1m9 • demonstrate an understanding of magnitude by counting forward to 100 and backwards from 20;

1m10 • solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of strategies.

Quantity Relationships

1m11 – represent, compare, and order whole numbers to 50, using a variety of tools (e.g., connecting cubes, ten frames, base ten materials, number lines, hundreds charts) and contexts (e.g., real-life experiences, number stories);

1m12 – read and print in words whole numbers to ten, using meaningful contexts (e.g., storybooks, posters);

1m13 – demonstrate, using concrete materials, the concept of conservation of number (e.g., 5 counters represent the number 5, regardless whether they are close together or far apart);

1m14 – relate numbers to the anchors of 5 and 10 (e.g., 7 is 2 more than 5 and 3 less than 10);

1m15 – identify and describe various coins (i.e., penny, nickel, dime, quarter, $1 coin, $2 coin), using coin manipulatives or drawings, and state their value (e.g., the valueof a penny is one cent; the value of a toonie is two dollars);

1m16 – represent money amounts to 20¢, through investigation using coin manipulatives;

1m17 – estimate the number of objects in a set, and check by counting (e.g., "I guessed that there were 20 cubes in the pile. I counted them and there were only 17cubes. 17 is close to 20.");

1m18 – compose and decompose numbers up to 20 in a variety of ways, using concrete materials (e.g., 7 can be decomposed using connecting cubes into 6 and 1, or 5 and 2, or 4 and 3);

1m19 – divide whole objects into parts and identify and describe, through investigation, equal-sized parts of the whole, using fractional names (e.g., halves; fourths or quarters).

Counting

1m20 – demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting;

1m21 – count forward by 1's, 2's, 5's, and 10's to100, using a variety of tools and strategies(e.g., move with steps; skip count on a number line; place counters on a hundreds chart; connect cubes to show equal groups; count groups of pennies, nickels, or dimes);

1m22 – count backwards by 1's from 20 and any number less than 20 (e.g., count backwards from 18 to 11), with and without the use of concrete materials and number lines;

1m23 – count backwards from 20 by 2's and 5's, using a variety of tools (e.g., number lines, hundreds charts);

1m24 – use ordinal numbers to thirty-first in meaningful contexts (e.g., identify the days of the month on a calendar).

Operational Sense

1m25 – solve a variety of problems involving the addition and subtraction of whole numbersto 20, using concrete materials and drawings (e.g., pictures, number lines) (Sample problem: Miguel has 12 cookies.Seven cookies are chocolate. Use counters to determine how many cookies are not chocolate.);

1m26 – solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of mental strategies (e.g., one more than, one less than, counting on, counting back, doubles);

1m27 – add and subtract money amounts to 10¢, using coin manipulatives and drawings.

Measurement

Overall Expectations

1m28 • estimate, measure, and describe length, area, mass, capacity, time, and temperature, using non-standard units of the same size;

1m29 • compare, describe, and order objects, using attributes measured in non-standard units.

Attributes, Units, and Measurement Sense

1m30 – demonstrate an understanding of the use of non-standard units of the same size (e.g., straws, index cards) for measuring (Sample problem: Measure the length of your desk in different ways; for example, by using several different non-standard units or by starting measurements from opposite ends of the desk. Discuss your findings.);

1m31 – estimate, measure (i.e., by placing non-standard units repeatedly, without overlaps or gaps), and record lengths, heights, and distances (e.g., a book is about 10 paper clips wide; a pencil is about 3 toothpicks long);

1m32 – construct, using a variety of strategies, tools for measuring lengths, heights, and distances in non-standard units (e.g., footprints on cash register tape or on connecting cubes);

1m33 – estimate, measure (i.e., by minimizing overlaps and gaps), and describe area, through investigation using non-standard units (e.g., "It took about 15 index cards to cover my desk, with only a little bit of space left over.");

1m34 – estimate, measure, and describe the capacity and/or mass of an object, through investigation using non-standard units (e.g., "My journal has the same mass as 13 pencils." "The juice can has the same capacity as 4 pop cans.");

1m35 – estimate, measure, and describe the passage of time, through investigation using nonstandard units (e.g., number of sleeps; number of claps; number of flips of a sand timer);

1m36 – read demonstration digital and analogue clocks, and use them to identify benchmark times (e.g., times for breakfast, lunch, dinner; the start and end of school; bedtime) and to tell and write time to the hour and half-hour in everyday settings;

1m37 – name the months of the year in order, and read the date on a calendar;

1m38 – relate temperature to experiences of the seasons (e.g., "In winter, we can skate because it's cold enough for there to be ice.").

Measurement Relationships

1m39 – compare two or three objects using measurable attributes (e.g., length, height, width, area, temperature, mass, capacity), and describe the objects using relative terms (e.g., taller, heavier, faster, bigger, warmer; "If I put an eraser, a pencil, and a metre stick beside each other, I can see that the eraser is shortest and the metre stick is longest.");

1m40 – compare and order objects by their linear measurements, using the same non-standard unit (Sample problem: Using a length of string equal to the length of your forearm, work with a partner to find other objects that are about the same length.);

1m41 – use the metre as a benchmark for measuring length, and compare the metre with non-standard units (Sample problem: In the classroom, use a metre stick to find objects that are taller than one metre and objects that are shorter than one metre.);

1m42 – describe, through investigation using concrete materials, the relationship between the size of a unit and the number of units needed to measure length (Sample problem: Compare the numbers of paper clips and pencils needed to measure the length of the same table.).

Geometry and Spatial Sense

Overall Expectations

1m43 • identify common two-dimensional shapes and three-dimensional figures and sort and classify them by their attributes;*

1m44 • compose and decompose common two-dimensional shapes and three-dimensional figures;

1m45 • describe the relative locations of objects using positional language.

Geometric Properties

1m46 – identify and describe common two-dimensional shapes (e.g., circles, triangles, rectangles, squares) and sort and classify them by their attributes (e.g., colour; size; texture; number of sides), using concrete materials and pictorial representations (e.g., "I put all the triangles in one group. Some are long and skinny, and some are short and fat, but they all have three sides.");

1m47 – trace and identify the two-dimensional faces of three-dimensional figures, using concrete models (e.g., "I can see squares on the cube.");

1m48 – identify and describe common three-dimensional figures (e.g., cubes, cones, cylinders, spheres, rectangular prisms) and sort and classify them by their attributes (e.g., colour; size; texture; number and shape of faces), using concrete materials and pictorial representations (e.g., "I put the cones and the cylinders in the same group because they all have circles on them.");

1m49 – describe similarities and differences between an everyday object and a three-dimensional figure (e.g., "A water bottle looks like a cylinder, except the bottle gets thinner at the top.");

1m50 – locate shapes in the environment that have symmetry, and describe the symmetry.

Geometric Relationships

1m51 – compose patterns, pictures, and designs, using common two-dimensional shapes (Sample problem: Create a picture of a flower using pattern blocks.);

1m52 – identify and describe shapes within other shapes (e.g., shapes within a geometric design);

1m53 – build three-dimensional structures using concrete materials, and describe the two-dimensional shapes the structures contain;

1m54 – cover outline puzzles with two-dimensional shapes (e.g., pattern blocks, tangrams) (Sample problem: Fill in the outline of a boat with tangram pieces.).

Location and Movement

1m55 – describe the relative locations of objects or people using positional language (e.g., over, under, above, below, in front of, behind, inside, outside, beside, between, along);

1m56 – describe the relative locations of objects on concrete maps created in the classroom (Sample problem: Work with your group to create a map of the classroom in the sand table, using smaller objects to represent the classroom objects. Describe where the teacher's desk and the bookshelves are located.);

1m57 – create symmetrical designs and pictures, using concrete materials (e.g., pattern blocks, connecting cubes, paper for folding), and describe the relative locations of the parts.

Patterning and Algebra

Overall Expectations

1m58 • identify, describe, extend, and create repeating patterns;

1m59 • demonstrate an understanding of the concept of equality, using concrete materials and addition and subtraction to 10.

Patterns and Relationships

1m60 – identify, describe, and extend, through investigation, geometric repeating patterns involving one attribute (e.g., colour, size, shape, thickness, orientation);

1m61 – identify and extend, through investigation, numeric repeating patterns (e.g., 1, 2, 3, 1, 2, 3, 1, 2, 3, …);

1m62 – describe numeric repeating patterns in a hundreds chart;

1m63 – identify a rule for a repeating pattern (e.g., "We're lining up boy, girl, boy, girl, boy, girl.");

1m64 – create a repeating pattern involving one attribute (e.g., colour, size, shape, sound) (Sample problem: Use beads to make a string that shows a repeating pattern involving one attribute.);

1m65 – represent a given repeating pattern in a variety of ways (e.g., pictures, actions, colours, sounds, numbers, letters) (Sample problem: Make an ABA, ABA, ABA pattern using actions like clapping or tapping.).

Expressions and Equality

1m66 – create a set in which the number of objects is greater than, less than, or equal to the number of objects in a given set;

1m67 – demonstrate examples of equality, through investigation, using a "balance" model (Sample problem: Demonstrate, using a pan balance, that a train of 7 attached cubes on one side balances a train of 3 cubes and a train of 4 cubes on the other side.);

1m68 – determine, through investigation using a "balance" model and whole numbers to 10, the number of identical objects that must be added or subtracted to establish equality (Sample problem: On a pan balance, 5 cubes are placed on the left side and 8 cubes are placed on the right side. How many cubes should you take off the right side so that both sides balance?).

Data Management and Probability

Overall Expectations

1m69 • collect and organize categorical primary data and display the data using concrete graphs and pictographs, without regard to the order of labels on the horizontal axis;

1m70 • read and describe primary data presented in concrete graphs and pictographs;

1m71   • describe the likelihood that everyday events will happen.

Collection and Organization of Data

1m72   – demonstrate an ability to organize objects into categories by sorting and classifying objects using one attribute (e.g., colour, size), and by describing informal sorting experiences (e.g., helping to put away groceries) (Sample problem: Sort a collection of attribute blocks by colour. Re-sort the same collection by shape.);

1m73   – collect and organize primary data (e.g., data collected by the class) that is categorical (i.e., that can be organized into categories based on qualities such as colour or hobby), and display the data using one-to-one correspondence, prepared templates of concrete graphs and pictographs (with titles and labels), and a variety of recording methods (e.g., arranging objects, placing stickers, drawing pictures, making tally marks) (Sample problem: Collect and organize data about the favourite fruit that students in your class like to eat.).

Data Relationships

1m74   – read primary data presented in concrete graphs and pictographs, and describe the data using comparative language (e.g., more students chose summer than winter as their single favourite season);

1m75   – pose and answer questions about collected data (Sample problem: What was the most popular fruit chosen by the students in your class?).

Probability

1m76   – describe the likelihood that everyday events will occur, using mathematical language (i.e., impossible, unlikely, less likely, more likely, certain) (e.g., "It's unlikely that I will win the contest shown on the cereal box.").

Science and Technology Expectations (2007)   Grade 1

UNDERSTANDING LIFE SYSTEMS: Needs and Characteristics of Living Things

Overall Expectations

1s1
CR2007

1. assess the role of humans in maintaining a healthy environment;

1s2
CR2007

2. investigate needs and characteristics of plants and animals, including humans;

1s3
CR2007

3. demonstrate an understanding of the basic needs and characteristics of plants and animals, including humans.

1. Relating Science and Technology to Society and the Environment

1s4
CR2007

1.1 identify personal action that they themselves can take to help maintain a healthy environment for living things, including humans (e.g., walk to school instead of being driven in the car; be careful what they put down the drain at home; practise cleanliness to reduce the spread of germs when helping in the kitchen; show care and concern for all living things) Sample guiding questions: What happens to humans when part of their environment is not healthy? What happens to other animals and plants when part of their environment is not healthy? What are some ways that humans help and hurt other living things? What can we do at home to help keep our environment healthy? What can we do here at school? What does our community do to help keep our environment healthy?

1s5
CR2007

1.2 describe changes or problems that could result from the loss of some kinds of living things that are part of everyday life (e.g., if we lost all the cows, all the insects, all the bats, all the trees, all the grasses), taking different points of view into consideration (e.g., the point of view of farmers, children, parents) Sample guiding questions: What are some living things that we see every day? Which are plants? Which are animals? What makes them important to us and to the environment? How would things be different for us as humans if there were no cows (trees, insects, bats, grass)? How would things be different for other living things? How would the environment be different? What are some things we can do to show that we care for other living things and appreciate what they do for us and for the environment?

2. Developing Investigation and Communication Skills

1s6
CR2007

2.1 follow established safety procedures and humane practices during science and technology investigations (e.g., show care and concern when handling animals)

1s7
CR2007

2.2 investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources (e.g., prior knowledge, personal experience, discussion, books, videos/DVDs, CD-ROMs) Sample guiding questions: What is the difference between living things and non-living things? What are some of the things that humans need to live and grow? What do other living things need to live and grow? In what ways are all living things alike? What are some ways in which they are different? In what ways might humans interfere with the ability of other living things to get what they need to live (e.g., by polluting the water that animals drink and live in; by removing plants from their natural growing places and putting them in their gardens)? Why do some Aboriginal people consider rocks to be living things?

1s8
CR2007

2.3 investigate and compare the physical characteristics of a variety of plants and animals, including humans (e.g., some plants produce flowers and some do not; most plants have roots; some animals have two legs, while others have four; all animals have sense organs)

1s9
CR2007

2.4 investigate the physical characteristics of plants (e.g., basic parts, size, shape, colour) and explain how they help the plant meet its basic needs (e.g., roots anchor the plant and help provide the plant with food and water; some plants have brightly coloured flowers to attract bees), using a variety of methods and resources (e.g., direct observation of live plants in the classroom and in the schoolyard, prior knowledge, personal experience, diagrams and/or charts) Sample guiding questions: What are the things that plants need in order to grow and survive? What parts do most plants have? How does each of these parts help the plant to get what it needs to grow and survive?

1s10
CR2007

2.5 investigate characteristics of parts of the human body, including the five sense organs, and explain how those characteristics help humans meet their needs and explore the world around them (e.g., our hands have fingers and a thumb that are flexible to allow us to pick up food; our legs have the two biggest bones in our bodies, to carry us around to do the things we need to do; our tongue has bumps that help us to determine if our food is too hot, too cold, or tastes bad; our ears are shaped like cones to catch sounds that warn us that danger is near and to hear the beautiful sounds of nature), using a variety of methods and resources (e.g., observation of themselves and other animals, outdoor experiences, prior knowledge, personal experience, diagrams and/or charts)

1s11
CR2007

2.6 use appropriate science and technology vocabulary, including investigation, explore, needs, space, and food, in oral and written communication

1s12 CR2007	2.7 use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes (e.g., create a diorama to illustrate the basic needs of plants and animals, including humans)

3. Understanding Basic Concepts

1s13 CR2007	3.1 identify environment as the area in which something or someone exists or lives
1s14 CR2007	3.2 identify the physical characteristics (e.g., size, shape, colour, common parts) of a variety of plants and animals (e.g., sunflowers are tall, with a long stalk, leaves, and big, round, yellow flowers with hundreds of seeds; dogs can be big or small, come in many shapes and colours, have four legs, and usually have a tail and are covered with fur)
1s15 CR2007	3.3 identify the location and function of major parts of the human body, including sense organs (e.g., lungs are in my chest and are used for breathing; teeth are in my mouth and are used for eating; hair is on my head for protection from the cold; ears are on the sides of my head and are used for hearing)
1s16 CR2007	3.4 describe the characteristics of a healthy environment, including clean air and water and nutritious food, and explain why it is important for all living things to have a healthy environment
1s17 CR2007	3.5 describe how showing care and respect for all living things helps to maintain a healthy environment (e.g., leaving all living things in their natural environment; feeding birds during cold winter months; helping to plant and care for plants in the gardens that attract birds and butterflies; caring for the school and the schoolyard as an environment)
1s18 CR2007	3.6 identify what living things provide for other living things (e.g., trees produce the oxygen that other living things breathe; plants such as tomatoes and apple trees and animals such as cows and fish provide food for humans and for other animals; a tree stump provides a home for a chipmunk; porcupines chew off the tips of hemlock limbs, providing food for deer in winter)
1s19 CR2007	3.7 describe how the things plants and animals use to meet their needs are changed by their use and are returned to the environment in different forms (e.g., the food animals eat and the water they drink are returned to the earth as scat and urine)

UNDERSTANDING STRUCTURES AND MECHANISMS: Materials, Objects, and Everyday Structures

Overall Expectations

1s20 CR2007	1. assess the impact on people and the environment of objects and structures and the materials used in them;
1s21 CR2007	2. investigate structures that are built for a specific purpose to see how their design and materials suit the purpose;
1s22 CR2007	3. demonstrate an understanding that objects and structures have observable characteristics and are made from materials with specific properties that determine how they are used.

1. Relating Science and Technology to Society and the Environment

1s23 CR2007	1.1 identify the kinds of waste produced in the classroom, and plan and carry out a classroom course of action for minimizing waste, explaining why each action is important Sample prompts: Many children in our class bring their lunch to school, and after lunch our garbage can is full of soft-drink cans, tinfoil, plastic wrap, apple cores, and orange rinds. Where else might we put some of these things? Our class likes to do cut-andpaste activities, and we all like the fresh new sheets of paper. How else might we find the paper that we need? When we tidy up, we put all of the scraps in the garbage pail. What else might we do with them?

1s24 **CR2007**	1.2 assess objects in their environment that are constructed for similar purposes (e.g., chairs at home and at school; different kinds of shoes; different kinds of floor coverings) in terms of the type of materials they are made from, the source of these materials, and what happens to these objects when they are worn out or no longer needed Sample guiding questions: What is the purpose of the objects you have chosen? In what ways are your objects the same? In what ways are they different? Where might someone get the materials from which one of your objects is made (e.g., wood from trees, cotton from plants)? In what ways is each of your objects well suited for the place it is in or the task that it does? What happens to your object when it can no longer do the job it was designed to do? What might be some alternative ways of "disposing" of your object (e.g., shoes that no longer fit can be given to a younger sibling or to a community group for distribution to someone who can use them; the wood from an old chair might be used to build a play table and chairs)?

2. Developing Investigation and Communication Skills

1s25 **CR2007**	2.1 follow established safety procedures during science and technology investigations (e.g., wear safety goggles when using saws and hammers)
1s26 **CR2007**	2.2 investigate characteristics of various objects and structures, using their senses
1s27 **CR2007**	2.3 investigate, through experimentation, the properties of various materials (e.g., the best materials for absorbing or repelling water, for flexibility, for strength: the flexibility of plastic makes plastic wrap useful for covering food in order to keep it fresh; the impermeability of rubber enables rubber boots to keep feet dry)
1s28 **CR2007**	2.4 use technological problem-solving skills (see page 16), and knowledge acquired from previous investigations, to design, build, and test a structure for a specific purpose (e.g., a tent, a model of a swing set or other playground equipment, a bird feeder, a wigwam for people who need to move throughout the year) Sample guiding questions: What is the purpose of your structure? What materials did you use to build your structure? Why did you choose those materials instead of _____ to build your structure? What did you use to fasten your structure together? What might happen to the materials in your structure when it is no longer being used?
1s29 **CR2007**	2.5 use appropriate science and technology vocabulary, including experiment, explore, purpose, rigid, flexible, solid, and smooth, in oral and written communication
1s30 **CR2007**	2.6 use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes (e.g., orally explain their choices of materials and design decisions when presenting their structures)

3. Understanding Basic Concepts

1s31 **CR2007**	3.1 describe objects as things that are made of one or more materials
1s32 **CR2007**	3.2 describe structures as supporting frameworks
1s33 **CR2007**	3.3 describe materials as the substances from which something is made
1s34 **CR2007**	3.4 describe the function/purpose of the observable characteristics (e.g., texture, height, shape, colour) of various objects and structures, using information gathered through their senses (e.g., sandpaper is rough to help take the rough edges off wood; a traffic light is tall so it can be easily seen; a stop sign is the same shape and colour in many countries around the world to make it easily recognizable)
1s35 **CR2007**	3.5 identify the materials that make up objects and structures (e.g., wood, plastic, steel, paper, polystyrene foam, cloth)
1s36 **CR2007**	3.6 distinguish between objects (including structures) and materials found in nature (e.g., tree: sap) and those made by humans (e.g., toy: plastic)
1s37 **CR2007**	3.7 describe the properties of materials that enable the objects and structures made from them to perform their intended function

1s38 CR2007	3.8 list different kinds of fasteners (e.g., tape, glue, button, zipper), and describe the uses of each

1s39 CR2007	3.9 identify the sources in nature of some common materials that are used in making structures (e.g., paper and rubber come from trees; plastic comes from petroleum; steel comes from metals and minerals in the ground)

UNDERSTANDING MATTER AND ENERGY: Energy in Our Lives

Overall Expectations

1s40 CR2007	1. assess uses of energy at home, at school, and in the community, and suggest ways to use less energy;

1s41 CR2007	2. investigate how different types of energy are used in daily life;

1s42 CR2007	3. demonstrate an understanding that energy is something that is needed to make things happen, and that the sun is the principal source of energy for the earth.

1. Relating Science and Technology to Society and the Environment

1s43 CR2007	1.1 describe their own and their family's uses of energy (e.g., to operate lights, video games, cars, computers); identify ways in which these uses are efficient or wasteful, taking different points of view into consideration (e.g., the point of view of a parent, a sibling, a member of their extended family); suggest ways to reduce personal energy consumption; and explain why it is important for people to make these choices Sample issues: "My house is a few blocks from my school, but every day my dad drives me to and from school in the car, because he wants me to be safe." "My brothers and sisters all have MP3 players and video games, and they use a lot of batteries to keep them running." "We try to turn out the lights when we aren't in a room, but Grandma needs the lights to move around the house safely."

1s44 CR2007	1.2 describe how the everyday lives of different people and other living things would be affected if electrical energy were no longer available (e.g., families, farmers, businesses and stores, a company that offers alternative energy sources such as solar-powered devices, the plants in a hydroponic greenhouse, the tropical animals in a Canadian zoo)

2. Developing Investigation and Communication Skills

1s45 CR2007	2.1 follow established safety procedures during science and technology investigations (e.g., keep work spaces neat and tidy by putting all tools, materials, and equipment back where they belong)

1s46 CR2007	2.2 investigate how the sun affects the air, land, and/or water, using a variety of methods (e.g., standing outside on a sunny and a cloudy day and noting the differences; putting a dish of water in the sun and the shade and observing what happens) and resources (e.g., books, videos/ DVDs, CD-ROMs, the Internet)

1s47 CR2007	2.3 design and construct a device that uses energy to perform a task (e.g., a kite that flies using the wind; a musical instrument that uses human energy to make sounds)

1s48 CR2007	2.4 investigate and compare seasonal differences in the ways we use energy and the types of energy we use (e.g., we keep warm in winter by wearing a sweater and using furnaces and woodstoves; we stay cool in summer by sitting in the shade or going to places that are air conditioned; we adjust the amount of light we need by opening or closing the curtains and turning lights on or off)

1s49 CR2007	2.5 use scientific inquiry/experimentation skills (see page 12), and knowledge acquired from previous investigations, to explore the effects of light and heat from the sun (e.g., by growing plants in the presence and absence of sunlight; by feeling the temperature of dark papers that have been in the sun and in the shade; by covering a portion of a piece of coloured paper and exposing the paper to the sun)

1s50 CR2007	2.6 investigate how the sun's energy allows humans to meet their basic needs, including the need for food (e.g., trace the flow of energy from the sun, which provides energy to plants, which make food for animals to eat, and then from plants and animals, which provide food for humans to eat)

1s51 CR2007	2.7 use appropriate science and technology vocabulary, including explore, investigate, design, energy, and survival, in oral and written communication
1s52 CR2007	2.8 use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes (e.g., use labelled diagrams to show what happened when plants were grown in varying light conditions)

3. Understanding Basic Concepts

1s53 CR2007	3.1 demonstrate an understanding that energy is what makes the things they do or see happen
1s54 CR2007	3.2 demonstrate an understanding that the sun, as the earth's principal source of energy, warms the air, land, and water; is a source of light for the earth; and makes it possible to grow food
1s55 CR2007	3.3 identify food as a source of energy for themselves and other living things
1s56 CR2007	3.4 identify everyday uses of various sources of energy (e.g., food to help animals, including humans, survive and move; natural gas to heat homes and schools; petroleum to power cars and buses; electricity to power lights; batteries to power toys)
1s57 CR2007	3.5 demonstrate an understanding that humans get the energy resources they need from the world around them (e.g., the wood, oil, and gas to heat our homes and cook our food) and that the supply of many of these resources is limited so care needs to be taken in how we use them.

UNDERSTANDING EARTH AND SPACE SYSTEMS: Daily and Seasonal Changes

Overall Expectations

1s58 CR2007	1. assess the impact of daily and seasonal changes on living things, including humans;
1s59 CR2007	2. investigate daily and seasonal changes;
1s60 CR2007	3. demonstrate an understanding of what daily and seasonal changes are and of how these changes affect living things.

1. Relating Science and Technology to Society and the Environment

1s61 CR2007	1.1 assess the impact of daily and seasonal changes on human outdoor activities (e.g., farming, gardening, swimming, skating, soccer) and identify innovations that allow for some of these activities to take place indoors out of season (e.g., greenhouses allow farming and gardening to happen in cold weather; arenas can make ice in all seasons for skating and hockey; community centres can provide warm places in all seasons for swimming) Sample guiding questions: Why do you and your family do different things outdoors during the day than at night? What are some outdoor human activities that can go on in any season? Why can this happen? What are some outdoor activities that can happen only in certain seasons? Why? How might it be possible for these activities to happen in other seasons? What might be some advantages and disadvantages of making this happen?
1s62 CR2007	1.2 assess ways in which daily and seasonal changes have an impact on society and the environment (e.g., In winter, some people suffer from seasonal disorders because there is less light from the sun than in summer. When the weather gets cold, people turn on heat in their homes; when the weather gets hotter they turn on fans, air conditioners, and pool heaters and pumps, all of which means that more energy is being used. At night in winter, when people get home from work and school, they all turn on appliances at around the same time [peak hours], which puts a strain on the power supplies. In summer, people increase their use of water to wash their cars and water their lawns and gardens; unless there is plenty of rain, this usage of water puts a strain on water supplies. In winter, it is harder for birds that do not migrate and animals that do not hibernate to find food and water. Some plants die when summer is over; others undergo changes, such as losing their leaves and going dormant until spring. The Anishinaabe people tell their stories only in the winter when there is snow on the ground.)

2. Developing Investigation and Communication Skills

1s63
CR2007

2.1 follow established safety procedures during science and technology investigations (e.g., never look directly at the sun; wear a hat and sunscreen when working outdoors)

1s64
CR2007

2.2 investigate the changes in the amount of light from the sun that occur throughout the day and year (e.g., compare the amount of light observed at bedtime during summer vacation with the amount observed at bedtime during winter vacation)

1s65
CR2007

2.3 investigate the changes in the amount of heat from the sun that occur throughout the day and in the various seasons (e.g., use their prior experience of the sun's warmth, and measure, record, and compare outdoor temperatures at different times of day and in different months of the year)

1s66
CR2007

2.4 use scientific inquiry/research skills (see page 15), including generating questions and knowledge acquired from previous investigations, to identify daily and/or seasonal changes and their effects (e.g., the sun shines during the day, and the moon and stars are visible at night; leaves change colour in the fall; there are fewer birds in winter; dogs' fur gets thicker in winter; trees and flowers bloom in spring) Sample guiding questions: What are some changes that take place between day and night? What changes in plants, animals, and the weather take place between summer and fall? Between fall and winter? Between winter and spring? How do these changes affect your activities and those of your family?

1s67
CR2007

2.5 use appropriate science and technology vocabulary, including investigate, temperature, hibernate, dormant, energy, and survival, in oral and written communication

1s68
CR2007

2.6 use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes (e.g., contribute to a class book about their observations of seasonal changes; keep a weekly pictorial journal in which they record and describe the weather through the seasons)

3. Understanding Basic Concepts

1s69
CR2007

3.1 identify the sun as Earth's principal source of heat and light

1s70
CR2007

3.2 define a cycle as a circular sequence of events

1s71
CR2007

3.3 describe changes in the amount of heat and light from the sun that occur throughout the day and the seasons

1s72
CR2007

3.4 describe and compare the four seasons (e.g., in terms of amount of daylight, type of precipitation, temperature)

1s73
CR2007

3.5 describe changes in the appearance or behaviour of living things that are adaptations to seasonal changes (e.g., in fall, some plants shed their leaves and some birds migrate; in winter some animals change colour)

1s74
CR2007

3.6 describe how humans prepare for and/or respond to daily and seasonal changes (e.g., by wearing appropriate clothing, carrying an umbrella, turning on an air conditioner or heater)

HC: Relationships, Rules, and Responsibilities

Overall Expectations

1z1 • identify people with whom they have significant relationships, and the rules and responsibilities associated with people, places, and events in their lives and communities;

1z2 • use a variety of resources and tools to gather, process, and communicate information about the rules people follow in daily life and the responsibilities of family members and other people in their school and community;

1z3 • explain how and why relationships, rules, and responsibilities may change over time, and in different places.

Knowledge and Understanding

1z4 – state in simple terms what "relationships", "rules", and "responsibilities" are;

1z5 – explain why rules and responsibilities have been established (e.g., for protection and safety, for fair division of work);

1z6 – identify important relationships in their lives (e.g., with family members, friends, pets, teachers) and name some responsibilities that are part of these relationships;

1z7 – describe significant people and places in their lives (e.g., parents, sports figures; bedroom, park, playground, community centre) and the rules associated with them;

1z8 – identify significant events in their lives (e.g., their first day of school, a trip) and the rules associated with them;

1z9 – describe how they follow the rules about respecting the rights and property of other people and about using the shared environment responsibly (e.g., by sharing, being courteous, cooperating, not littering).

Inquiry/Research and Communication Skills

1z10 – brainstorm and ask simple questions (e.g., How? Why?) to gain information about relationships, rules, and responsibilities;

1z11 – use primary and secondary sources to locate information about relationships, rules, and responsibilities in their home, school, and community (e.g., *primary sources*: interviews, eyewitness visitors, class trips; *secondary sources*: maps, illustrations, print materials, technology);

1z12 – use illustrations, key words, and simple sentences (e.g., chart, picture book, cartoon) to sort, classify, and record information about relationships, rules, and responsibilities;

1z13 – construct and read concrete, pictorial, and simple maps, graphs, charts, diagrams, and timelines to clarify and present information about relationships, rules, and responsibilities in their daily lives (e.g., timeline of a school day, class graph of students' responsibilities at home);

1z14 – use appropriate vocabulary (e.g., *change, rights, responsibilities, roles, respecting rules, cooperating, being courteous*) to communicate the results of inquiries and observations about relationships, rules, and responsibilities.

Application

1z15 – explain how events and actions (e.g., a ban on popular toys at school, birth of a sibling) can cause rules and responsibilities to change, and describe what some new rules and responsibilities might be;

1z16 – identify an area of concern (e.g., littering, sharing, conflicts), and suggest changes in rules or responsibilities to provide possible solutions;

1z17 – order a sequence of events to demonstrate how relationships, rules, or responsibilities change over time (e.g., throughout the day, throughout the school year), and in different places.

CWC: The Local Community

Overall Expectations

1z18 • recognize that communities consist of various physical features and community facilities that meet human needs;

1z19 • use a variety of resources and tools to gather, process, and communicate information about the distinguishing physical features and community facilities in their area;

1z20 • describe how people in the community interact with each other and the physical environment to meet human needs.

Knowledge and Understanding

1z21 – identify the physical and social needs of residents in an area (e.g., for food, water, shelter, safety, recreation, social interaction);

1z22 – identify the distinguishing physical features of their community (e.g., buildings, roads, rivers, lakes);

1z23 – list the occupations of some people in the community (e.g., storekeeper, hair stylist, mail carrier, farmer, teacher, police officer, firefighter, doctor, nurse, salesperson);

1z24 – identify the places in which people work and describe the technologies, tools, and vehicles they use;

1z25 – list the different ways in which people travel around the community (e.g., by bus, car, bicycle; on foot).

Inquiry/Research and Communication Skills

1z26 – brainstorm and ask simple questions (e.g.,Who? What? When? Where?) to gain information about their local community;

1z27 – use pictures, maps, print materials, media sources, and/or class trips to locate information about their local community, including safe places in the community (e.g., school, police station, homes of block parents and neighbours);

1z28 – use illustrations, key words, and simple sentences (e.g., graphic organizer, cooperative big book) to sort, classify, and record information about their local community;

1z29 – use appropriate vocabulary (e.g., *location, map, symbol, distance, title, legend, direction*) to communicate the results of inquiries and observations about their local community.

Map, Globe, and Graphic Skills *

1z30 – make models and read maps of familiar areas in their local community;

1z31 – use non-standard units to measure distance on a map (e.g., paces, tiles, blocks);

1z32 – demonstrate an understanding of scale (e.g., give the reasons for using small objects to represent large ones on a map);

1z33 – use their own symbols on a map to identify buildings and places in their local community (e.g., house, barn, school, fire station, police station, community centre, road, shopping area);

1z34 – recognize that different colours represent different things on a map (e.g., blue/water, green/land);

1z35 – use appropriate words (e.g., *left/right, up/down, front/back, near/far, above/below*) to describe relative locations of places and objects.

Application

1z36 – identify and describe routes within the school (e.g., fire route, exit route), using familiar symbols and landmarks (e.g., washroom, drinking fountain, offices);

1z37 – construct a model of their local community to show how people's physical and social needs are served within the area (e.g., locations of fire station, small or large retail buildings, recreational facilities, school, library; transportation routes);

1z38 – list a variety of occupations in the community and explain how they meet people's needs.

Healthy Living

Overall Expectations

1p1   • identify healthy eating habits;

1p2   • identify the stages in development of humans (e.g., comparing physical changes from birth to childhood) and of other living things;

1p3   • recognize safety risks and safe practices;

1p4   • recognize commonly used medicines and household products.

Healthy Eating

1p5   – identify the food groups and give examples of foods in each group;

1p6   – suggest occasions (e.g., a bake sale, a class party) when they can choose healthy food snacks, and describe the factors affecting their choices (e.g., choices made because of allergies or culture);

1p7   – describe ways to care for their teeth;

Growth and Development

1p8   – describe simple life cycles of plants and animals, including humans;

1p9   – recognize that rest, food, and exercise affect growth;

1p10   – identify the major parts of the body by their proper names;

Personal Safety / Injury Prevention

1p11   – outline the potential safety risks in the home, school, and community (e.g., from fire or toys);

1p12   – describe exploitative behaviours (e.g., abusive behaviours, bullying, inappropriate touching) and the feelings associated with them;

1p13   – identify people who can provide personal safety assistance (e.g., block parents) and explain how to access them (e.g., by phoning 9-1-1);

Substance Use / Abuse

1p14   – recognize that there are some medicines (e.g., cough syrup, nose drops) and other substances (e.g., vitamins) that help the body when used properly (safely);

1p15   – identify (e.g., from their symbols and labels) medicines and household products that are harmful to the body;

1p16   – employ decision-making skills to identify when and how medicines should be used (e.g., seeking out adult assistance).

Fundamental Movement Skills

Overall Expectations

1p17   • perform the basic movement skills required to participate in physical activities: locomotion/travelling (e.g., galloping, running), manipulation (e.g., throwing, catching), and stability (e.g., jumping, landing);

1p18   • demonstrate the principles of movement (e.g., in various directions, alone, with others, at various speeds) using locomotion/travelling, manipulation, and stability skills.

Locomotion / Travelling Skills

1p19   – travel in a variety of ways (e.g., leap, gallop) in different directions in response to signals (e.g., stop or go signals);

1p20   – travel in a variety of ways using different pathways (e.g., straight, curved, or zigzag pathways in creative dance);

Manipulation Skills

1p21   – throw objects of various sizes and shapes underhand, using one or two hands and large targets (e.g., toss a bean bag through a hoop);

1p22   – catch objects of various sizes, shapes, and textures below the waist and using two hands (e.g., catch a utility or beach ball);

1p23   – bounce, while stationary, a ball with one hand;

Stability Skills

1p24 – jump forward with control, using a variety of take-offs and landings;

1p25 – demonstrate basic static balances (e.g., stork balance) without equipment;

1p26 – transfer their weight from one body part to another.

Active Participation

Overall Expectations

1p27 • participate on a regular basis in physical activities that maintain or improve physical fitness (e.g., games, gymnastics, dance, fitness activities, outdoor pursuits);

1p28 • recognize the importance of being physically active;

1p29 • acquire living skills (e.g., basic problem-solving, decision-making, goal-setting, and interpersonal skills) through physical activities (e.g., games, gymnastics, dance, outdoor pursuits);

1p30 • follow safety procedures related to physical activity, equipment, and facilities.

Physical Activity

1p31 – participate vigorously in all aspects of the program (e.g., physical activity centres, dancing to music, tag games);

1p32 – display readiness to participate in the instructional program (e.g., joining in readily, wearing appropriate clothing, removing jewellery);

1p33 – follow instructions, pay attention, and attempt new activities;

Physical Fitness

1p34 – participate in moderate to vigorous physical activity (e.g., animal-walk fitness circuit) for a minimum of twenty minutes each day, including appropriate warm-up and cool-down procedures;

1p35 – recognize that the heart is always beating and pumping blood to the muscles and the rest of the body, and that increased activity increases both the work of the heart and the speed of breathing;

Living Skills

1p36 – participate in class or small-group discussion activities related to physical activity (e.g., goal setting through a theme-related activity such as a walk-run to the Olympics);

1p37 – work co-operatively with others (e.g., sharing equipment, helping others);

1p38 – demonstrate respect for others in group situations (e.g., being courteous, speaking kindly).

The Arts Expectations

Grade 01

Music

Overall Expectations

1a1 • demonstrate an understanding of the basic elements of music specified for this grade (see below) through listening to, performing, and creating music;

1a2 • use correctly the vocabulary and musical terminology associated with the specific expectations for this grade;

1a3 • listen to and identify music from different cultures and historical periods (e.g., French- Canadian folk songs such as "Alouette", Native Canadian songs such as "Ho Ho Watenay");

1a4 • communicate their response to music in ways appropriate for this grade (e.g., through visual arts, drama, creative movement, language).

Knowledge of Elements

1a5 – identify correctly specific sounds heard in their classroom environment (e.g., sound of a door closing, chalk squeaking);

1a6 – identify examples of beat in daily life and in music (e.g., heartbeat, steady pulse of a bass drum in a march);

1a7 – identify rhythms in language (e.g., patterns of long and short sounds in nursery rhymes);

1a8 – distinguish between beat and rhythm in a simple song;

1a9 – identify higher- and lower-pitched sounds in their environment and in music;

1a10 – identify examples of dynamics (the varying degree of volume of sound) in their environment and in music;

1a11 – identify different tempi (faster and slower speeds) in their environment and in music;

1a12 – reproduce specific pitches in group call-and-response activities (e.g., respond with "I am fine" to the leader's question "How are you?").

Creative Work

1a13 – express their responses to various kinds of music (e.g., fast, slow, loud, soft) by means of appropriate movements (e.g., marching, dancing);

1a14 – sing music from a variety of cultures and historical periods;

1a15 – create rhythmic patterns, using a variety of sounds (e.g., sounds made with the voice or instruments or by clapping);

1a16 – produce a specific effect (e.g., the sound of wind, sounds of farm animals), using various sound sources (e.g., the voice, the body, musical instruments, "found" materials such as sticks or combs);

1a17 – sing expressively, showing awareness of the meaning of the text;

1a18 – create simple accompaniments and sound effects to songs, poems, and chants, using the voice, instruments, or "found" materials;

1a19 – accompany songs, using appropriate rhythm instruments (e.g., tambourines), body percussion (e.g., clapping), or "found" instruments;

1a20 – create and perform musical compositions, applying their knowledge of the elements of music and patterns of sound.

Critical Thinking

1a21 – communicate their thoughts and feelings about the music they hear, using language and a variety of art forms and media (e.g., computer, paints, crayons);

1a22 – identify ways in which music is a part of their daily life (e.g., music is used in the media, in family celebrations);

1a23 – describe their responses to music that they sing and hear, using appropriate vocabulary or musical terminology (e.g., "I like this music because it is fast and it makes me want to dance");

1a24   – recognize that mood can be created through music (e.g., in "Lullaby" by Brahms, in "Dance of the Sugar Plum Fairy" by Tchaikovsky).

Visual Arts

Overall Expectations

1a25   • produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes;

1a26   • use the elements of design (colour, line, shape, form, space, texture), in ways appropriate for this grade, when producing and responding to works of art;

1a27   • describe how the ideas in a variety of art works relate to their own knowledge and experience;

1a28   • use correctly vocabulary and art terminology associated with the specific expectations for this grade.

Knowledge of Elements

1a29   – recognize and name the primary colours of pigment (red, blue, yellow);

1a30   – identify the value of a colour (i.e., distinguish between lighter and darker tones of a colour);

1a31   – describe different kinds of lines (e.g., jagged, broken, straight, curved);

1a32   – identify the horizon line;

1a33   – distinguish between geometric and organic shapes and forms;

1a34   – describe the texture of various familiar objects (e.g., rough, smooth, slippery, wet), using vocabulary and terminology appropriate for this grade;

1a35   – identify the elements of design in familiar environments (e.g., the colours in the classroom; the shapes used in wallpaper samples; the forms found in a piano, rectangles, columns);

1a36   – identify a variety of art tools, materials, and techniques, and demonstrate understanding of their proper and safe use (e.g., brushes, sponges, fingers, sticks for painting; modelling clay for making sculptures; oil pastels, crayons, markers, pencil crayons for drawing).

Creative Work

1a37   – make artistic choices in their work, using at least one of the elements of design specified for this grade (e.g., create a three-dimensional work, using "found" materials to create specific textures);

1a38   – produce two- and three-dimensional works of art (i.e., works involving media and techniques used in drawing, painting, sculpting, printmaking) that communicate thoughts and feelings (e.g., paint a picture about a class trip);

1a39   – identify, in a plan, the subject matter and the tools and materials they will use to produce an art work;

1a40   – identify strengths and areas for improvement in their own and others' art works (e.g., "I like the way I painted the dog. Next time I will use smaller brushes so I can make the fur look real").

Critical Thinking

1a41   – describe the subject matter in both their own and others' art work (e.g., La Orana Maria by Paul Gauguin and Kettle of Soap by Joseph-Charles Franchère, which depict people engaged in everyday activities);

1a42   – describe, using appropriate vocabulary, how artists use the elements of design to communicate information and create a particular mood (e.g., the use of the bright primary colours red and yellow to suggest happiness);

1a43 – express a response to an art work that clearly communicates how the ideas, information, and feelings relate to their own experiences (e.g., a response in which they note that the artist's representation of a boy playing with a dog relates to the stories they have been reading about pets).

Drama & Dance

Overall Expectations

1a44 • demonstrate an understanding of some basic elements of drama and dance (e.g., character, rhythm);

1a45 • interpret the meaning of stories, poems, and other material drawn from a variety of sources and cultures, using some basic drama and dance techniques (e.g., role playing, movement sequences);

1a46 • create short dance pieces, using techniques learned in this grade;

1a47 • communicate understanding of works in drama and dance through discussion, movement, and visual art work;

1a48 • solve problems in everyday situations through role playing and movement in drama and dance.

Knowledge of Elements

1a49 – identify ways in which the voice and body can be used to convey thoughts and feelings when role playing (e.g., changing tone of voice and volume; changing speed or rhythm of movement);

1a50 – identify and correctly use drama and dance vocabulary (e.g., in role, out of role, position, direction);

1a51 – identify the meaning of symbols used in their dramatic exploration of stories and poems (e.g., the "circle of friendship");

1a52 – describe some basic ways in which the body can be used in space and time (e.g., freezing in position to look like a statue);

1a53 – demonstrate their knowledge of the movements of natural objects and materials (e.g., trees, flowers, water), using their voice and/or body.

Creative Work

1a54 – communicate their responses to a variety of stimuli (e.g., nursery rhymes, poetry, stories, picture books) by using elements of drama and dance (e.g., chanting in a group, movement);

1a55 – use the vocabulary and body movements of a particular character when role playing;

1a56 – demonstrate control of their bodies when moving like different objects and animals (e.g., a clock ticking, a cat stretching);

1a57 – create dance phrases, showing the beginning and the end of their work in appropriate ways.

Critical Thinking

1a58 – describe ways in which the experiences of characters in simple performances relate to their own experiences;

1a59 – identify themes and subjects used in works of drama and dance;

1a60 – demonstrate an understanding of different points of view (e.g., by playing the role of different characters, and identifying and solving problems they face);

1a61 – identify ways in which role playing and movement are part of their daily experience (e.g., changing tone of voice or speed of walking to express a mood).