

Curriculum Expectations

GRADE 3

for

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



Oral Communication

Overall Expectations

- 3e1** 1. listen in order to understand and respond appropriately in a variety of situations for a variety of purposes;
- 3e2** 2. use speaking skills and strategies appropriately to communicate with different audiences for a variety of purposes;
- 3e3** 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

- 3e4** Purpose
1.1 identify purposes for listening in a variety of situations, formal and informal, and set personal goals related to listening tasks (*e.g., to explore ideas in a book club discussion; to understand and empathize with a favourite character in a play; to express an opinion or offer advice to a partner during a peer conference*)
- 3e5** Active Listening Strategies
1.2 demonstrate an understanding of appropriate listening behaviour by using active listening strategies in order to contribute meaningfully and work constructively in groups (*e.g., demonstrate an understanding of when to speak, when to listen, and how much to say; make connections between personal experiences and the contributions of other group members; ask relevant questions to clarify information and ideas*)
- 3e6** Comprehension Strategies
1.3 identify a variety of listening comprehension strategies and use them appropriately before, during, and after listening in order to understand and clarify the meaning of oral texts (*e.g., list the important ideas in a poem or story read in class; ask questions to monitor understanding of an oral text; visualize and ketch to clarify understanding of an oral text*)
- 3e7** Demonstrating Understanding
1.4 demonstrate an understanding of the information and ideas in a variety of oral texts by identifying important information or ideas and some supporting details (*e.g., paraphrase a partner's reflections after a think-pair-share activity; paraphrase the important ideas in a play; engage in relevant dialogue after an oral presentation; create a poster/art work representing the important ideas in a poem or song*)
- 3e8** Making Inferences/Interpreting Texts
1.5 distinguish between stated and implied ideas in oral texts (*e.g., distinguish between the actual words and the emphasis placed on them by the speaker*)
Teacher prompts: "How does the emphasis that the speaker places on specific words or phrases help you understand what is being said?" "Why do you think the speaker spoke those words so loudly?" "How does the way the speaker chooses to say words change the meaning of what he or she says?"
- 3e9** 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., brainstorm to connect a topic to their background knowledge of the topic; compare oral texts with similar themes from different cultures; connect messages in oral texts to social issues of relevance to the class*)

- 3e10** Analysing Texts
1.7 identify and explain the importance of significant ideas and information in oral texts (*e.g., rank information in order of importance; compare key aspects of two oral texts using a Venn diagram; represent the main elements of an oral text on a web organizer or story map*)
- 3e11** Point of View
1.8 identify the point of view in different types of oral texts and cite words, phrases, ideas, and information from the texts that confirm their identification (*e.g., the use of first- or third-person personal pronouns in a narrative; the selective use of facts on a given topic; the use of words and phrases that indicate generalizations: all, every, always, never, every single time*)
Teacher prompts: “What helped you determine the point of view in this text?” “What evidence do you have that this is the speaker’s point of view?” “Has the speaker used language that includes everyone?” “Is this point of view a common one in our world today?”
- 3e12** Presentation Strategies
1.9 identify some of the presentation strategies used in oral texts and explain how they influence the audience (*e.g., intonation, eye contact*)
Teacher prompts: “Do you think the speaker used intonation and eye contact in an appropriate and effective way? How did they influence your response?” “What other strategies might be effective in engaging or influencing the audience?”

2. Speaking to Communicate

- 3e13** Purpose
2.1 identify a variety of purposes for speaking (*e.g., to entertain an audience; to establish positive personal and learning relationships with peers; to ask questions or explore solutions to problems in smallgroup and paired activities; to explain to a small group how to play a new game; to present to the class an item or event of personal interest; to share ideas or information in order to contribute to understanding in large or small groups*)
- 3e14** Interactive Strategies
2.2 demonstrate an understanding of appropriate speaking behaviour in a variety of situations, including small and large-group discussions (*e.g., paraphrase or restate other group members’ contributions; acknowledge another person’s point of view; link their responses to the topic of conversation and/or what was said by the previous speaker*)
- 3e15** Clarity and Coherence
2.3 communicate orally in a clear, coherent manner, presenting ideas, opinions, and information in a logical sequence (*e.g., use an organizational pattern such as comparison or chronological order in presenting a short oral report*)
- 3e16** Appropriate Language
2.4 choose a variety of appropriate words and phrases, including descriptive words and some technical vocabulary, and a few elements of style, to communicate their meaning accurately and engage the interest of their audience (*e.g., use alliteration for emphasis; use comparatives such as like, instead of, however, the same as, compared to, unlike to clarify similarities and differences; use appropriate technical terms when explaining a scientific investigation*)
- 3e17** Vocal Skills and Strategies
2.5 identify some vocal effects, including tone, pace, pitch, and volume, and use them appropriately, and with sensitivity towards cultural differences, to help communicate their meaning (*e.g., pause in appropriate places long enough to allow others to respond during dialogue with peers or in small groups*)
- 3e18** 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

- 3e19** Visual Aids
2.7 use a variety of appropriate visual aids (*e.g., overheads, diagrams, graphic organizers, charts, artefacts*) to support or enhance oral presentations (*e.g., use a large-size labelled diagram to illustrate an explanation of how soil erodes*)

3. Reflecting on Oral Communication Skills and Strategies

- 3e20** 3.1 identify, in conversation with the teacher and peers, what strategies they found most helpful before, during, and after listening and speaking
Teacher prompts: “What questions do you ask yourself after listening to check that you have understood?” “How do you check to be sure that the audience understands what you are saying?”
- 3e21** Interconnected Skills
3.2 identify, in conversation with the teacher and peers, how their skills as viewers, representers, readers, and writers help them improve their oral communication skills
Teacher prompts: “How does speaking make you a better listener?” “How does seeing a television program on a topic help you when you are discussing that topic in class?” “Does learning new words from your reading help you when you are listening to oral texts?”

Reading

Overall Expectations

- 3e22** 1. read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;
- 3e23** 2. recognize a variety of text forms, text features, and stylistic elements and demonstrate understanding of how they help communicate meaning;
- 3e24** 3. use knowledge of words and cueing systems to read fluently;
- 3e25** 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

- 3e26** Variety of Texts
1.1 read a variety of literary texts (*e.g., fables, traditional Aboriginal stories, poetry, chapter books, adventure stories, letters, diaries*), graphic texts (*e.g., comic books, posters, charts, tables, maps, graphs*), and informational texts (*e.g., “How to” books, print and electronic reference sources, magazine articles*)
- 3e27** Purpose
1.2 identify a variety of purposes for reading and choose reading materials appropriate for those purposes (*e.g., comic books and adventure stories for entertainment and interest, trade books to find information and answer questions, dictionaries to find word meanings and pronunciation, atlases for specific information about the world, newspapers for information on current events*)
- 3e28** Comprehension Strategies
1.3 identify a variety of reading comprehension strategies and use them appropriately before, during, and after reading to understand texts (*e.g., activate prior knowledge through brainstorming and/or developing mind maps; ask questions to focus reading and clarify understanding; use visualization to clarify details about such things as homes and clothing of early settlers; use pictures to confirm understanding of printed text*)

- 3e29** Demonstrating Understanding
1.4 demonstrate understanding of a variety of texts by identifying important ideas and some supporting details (*e.g., restate important ideas and some related details from an informational text about early settlers; retell a story giving details about specific elements of the text such as setting, characters, and theme*)
- 3e30** Making Inferences/Interpreting Texts
1.5 make inferences about texts using stated and implied ideas from the texts as evidence
Teacher prompts: “Using information from the story opening, what can you infer about the outcome of the game?” “How do you think the other characters will react to the actions of the main character?” “Why do you think early settlers chose wood to build their homes? Is there any evidence in the text to explain this?”
- 3e31** 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
Teacher prompts: “How are homes in this book the same as or different from homes today?” “Do you know of other reasons why trees are important besides the reasons mentioned in the book?”
- 3e32** Analysing Texts
1.7 identify specific elements of texts and explain how they contribute to the meaning of the texts (*e.g., narrative: setting, characters, plot, theme; explanation of a procedure: procedure to be explained, sequence of steps*)
Teacher prompts: “In what way does knowing more about the characters help you to understand the text?” “How does identifying the setting in the text help you as a reader?” “Why is it important to have the steps in a specific sequence?”
- 3e33** Responding to and Evaluating Texts
1.8 express personal opinions about ideas presented in texts (*e.g., identify traits they admire in the characters; comment on actions taken by characters*) *Teacher prompts:* “Do any of the characters in this story remind you of someone you know?” “What do you think about the way this story ends?”
- 3e34** Point of View
1.9 identify the point of view presented in a text and suggest some possible alternative perspectives (*e.g., retell the story from the point of view of someone other than the author*)
Teacher prompts: “How does the author show his/her point of view on this poster?” “How might the story have been different if the main character had been a girl instead of a boy or a senior instead of a child?”

2. Understanding Form and Style

- 3e35** Text Forms
2.1 identify and describe the characteristics of a variety of text forms, with a focus on literary texts such as a fable or adventure story (*e.g., plot development, characters, setting*), graphic texts such as a comic book (*e.g., speech bubbles, illustrations, captions*), and informational texts such as a nature magazine (*e.g., table of contents, diagrams, photographs, labels, captions*)
- 3e36** Text Patterns
2.2 recognize a few organizational patterns in texts of different types, and explain how the patterns help readers understand the texts (*e.g., classification/grouping of ideas in a report or a factual recount*) *Teacher prompt:* “How does this pattern help you understand the text?”

- 3e37** Text Features
2.3 identify a variety of text features and explain how they help readers understand texts (*e.g., table of contents, charts and chart titles, headings, an index, a glossary, graphs, illustrations, pictures, diagrams, hyperlinks, a menu*)
Teacher prompt: “What is the purpose of a glossary in a non-fiction text? How could you use it to help you understand the text?”
- 3e38** Elements of Style
2.4 identify some elements of style, including voice, word choice, and different types of sentences, and explain how they help readers understand texts (*e.g., different sentence types make the text more interesting for the reader and help the author express different kinds of ideas – questions express or stimulate curiosity; exclamations convey emotions such as surprise or excitement*)

3. Reading With Fluency

- 3e39** Reading Familiar Words
3.1 automatically read and understand most high-frequency words, many regularly used words, and words of personal interest or significance, in a variety of reading contexts *e.g., words from gradelevel texts; terminology used regularly in discussions and posted on anchor charts; words from shared-, guided-, and independent-reading texts, and some regularly used resource materials in the curriculum subject areas*
- 3e40** Reading Unfamiliar Words
3.2 predict the meaning of and rapidly solve unfamiliar words using different types of cues, including:
• semantic (meaning) cues (*e.g., prefixes, suffixes, base words, phrases, sentences, and visuals that activate existing knowledge of oral and written language*) ;
• syntactic (language structure) cues (*e.g., word order, language patterns, punctuation*) ;
• graphophonic (phonological and graphic) cues (*e.g., onset and rime; syllables; similarities between words with common spelling patterns and unknown words; words within words*)
Teacher prompt (for cross-checking of cues): “Does the word sound right and make sense given your understanding of the text?”
- 3e41** Reading Fluently
3.3 read appropriate texts at a sufficient rate and with sufficient expression to convey the sense of the text readily to the reader and an audience (*e.g., read a poem for two voices with a partner, using appropriate phrasing and expression*)

4. Reflecting on Reading Skills and Strategies

- 3e42** Metacognition
4.1 identify, initially with some support and direction, what strategies they found most helpful before, during, and after reading and how they can use these and other strategies to improve as readers
Teacher prompts: “What questions do you ask yourself to make sure you are understanding what you are reading?” “How do you know if you are on the right track?” “When you come to a word or phrase you don’t understand, how do you solve it?” “How do you figure out what information is important to remember?” “What do you do when you get confused during reading?”
- 3e43** Interconnected Skills
4.2 explain, initially with some support and direction, how their skills in listening, speaking, writing, viewing, and representing help them make sense of what they read
Teacher prompts: “How does hearing a similar text read aloud help you when you read a new text independently?” “How does knowing specific words or phrases from speaking or listening help you as a reader?” “How does dialogue with the teacher or peers in conferences help you as a reader?” “What do you know about writing that helps you as a reader?”

Writing

Overall Expectations

- 3e44** 1. generate, gather, and organize ideas and information to write for an intended purpose and audience;
- 3e45** 2. draft and revise their writing, using a variety of informational, literary, and graphic forms and stylistic elements appropriate for the purpose and audience;
- 3e46** 3. use editing, proofreading, and publishing skills and strategies, and knowledge of language conventions, to correct errors, refine expression, and present their work effectively;
- 3e47** 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

- 3e48** Purpose and Audience
1.1 identify the topic, purpose, audience, and form for writing (*e.g., an original fable, modelled on the structures and conventions of fables read, to entertain the class; a scientific explanation demonstrating how some common levers make work easier, for a peer group; a labelled map with a legend identifying the key components of an early settlement in Upper Canada, to accompany a small-group project*)
Teacher prompts: “What is your writing about?” “Why are you writing?” “Whom are you writing for?”
- 3e49** Developing Ideas
1.2 generate ideas about a potential topic, using a variety of strategies and resources (*e.g., formulate and ask questions to identify personal experiences, prior knowledge, and information needs and to guide searches for information; brainstorm and record ideas on the topic*)
- 3e50** 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 discussions with family and friends; from teacher read-alouds, mentor texts, shared-, guided-, and independent-reading texts, and media texts*)
- 3e51** Classifying Ideas
1.4 sort ideas and information for their writing in a variety of ways (*e.g., by using graphs, charts, webs, outlines, or lists*)
- 3e52** Organizing Ideas
1.5 identify and order main ideas and supporting details into units that could be used to develop a short, simple paragraph, using graphic organizers (*e.g., a story grammar, a T-chart, a paragraph frame*) and organizational patterns (*e.g., comparison, chronological order*)
- 3e53** Review
1.6 determine whether the ideas and information they have gathered are relevant and adequate for the purpose, and gather new material if necessary (*e.g., discuss the content with a peer or reading buddy; review material using a story map or web*)

2. Using Knowledge of Form and Style in Writing

- 3e54** Form
2.1 write short texts using a variety of forms (*e.g., a personal or factual recount of events or experiences that includes photographs or drawings and captions; a report comparing transportation in urban and rural communities; a paragraph explaining how physical geography and natural resources affected the development of early settler communities; a letter from the point of view of a settler, describing how First Nations people have taught the settlers to adapt to their new environment; a familiar story told from a new perspective; a patterned poem using rhyme or repetition*)
- 3e55** Voice
2.2 establish a personal voice in their writing, with a focus on using concrete words and images to convey their attitude or feeling towards the subject or audience (*e.g., words used literally or figuratively to communicate intensity of feeling: a shiver of excitement; hot anger*)
- 3e56** Word Choice
2.3 use words and phrases that will help convey their meaning as specifically as possible (*e.g., comparative adjectives such as smaller, smallest; adverbs*)
- 3e57** Sentence Fluency
2.4 vary sentence structures and maintain continuity by using joining words (*e.g., and, or*) to combine simple sentences and using words that indicate time and sequence to link sentences (*e.g., first, then, next, before, finally, later*)
- 3e58** Point of View
2.5 identify their point of view and other possible points of view on the topic, and determine if their information supports their own view
Teacher prompt: “What supporting details have you included for your point of view? Would this point of view be accepted by others? Why, or why not?”
- 3e59** Preparing for Revision
2.6 identify elements of their writing that need improvement, using feedback from the teacher and peers, with a focus on specific features (*e.g., a strong opening or “lead”; the clarity of the main idea*)
Teacher prompts: “Can you think of another way you might get the attention of your audience at the beginning?” “Have you provided enough detail to support your main idea?”
- 3e60** Revision
2.7 make revisions to improve the content, clarity, and interest of their written work, using several types of strategies (*e.g., reordering sentences, removing repetition or unnecessary information, adding material needed to clarify meaning, adding or substituting words to increase interest, adding linking words or phrases to highlight connections between ideas, using gender-neutral language as appropriate*)
Teacher prompts: “What similar words or phrases could you use instead of...?” “What time order words might help clarify the sequence of events in your story?”
- 3e61** Producing Drafts
2.8 produce revised, draft pieces of writing to meet identified criteria based on the expectations related to content, organization, style, and use of conventions

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

- 3e62** Spelling Familiar Words
3.1 spell familiar words correctly (*e.g., words from their oral vocabulary, anchor charts, the class word wall, and shared-, guided-, and independent-reading texts*)

- 3e63** Spelling Unfamiliar Words
3.2 spell unfamiliar words using a variety of strategies that involve understanding sound-symbol relationships, word structures, word meanings, and generalizations about spelling *e.g., pronounce a word as it is spelled: Wed-nes-day; make analogies to rhyming words; apply knowledge of short-vowel and long-vowel patterns; cluster words by visual similarities; follow rules for changing base words when adding common endings: hope/hoping, slam/slammed; use memory aids such as visualization)*
- 3e64** Vocabulary
3.3 confirm spellings and word meanings or word choice using several different types of resources *(e.g., locate words in an alphabetized personal word book or dictionary using first, second, third, and fourth letters, entry words, or pronunciation; use a variety of dictionaries, such as a rhyming dictionary or a dictionary of synonyms and antonyms; use a thesaurus to find alternative words)*
- 3e65** Punctuation
3.4 use punctuation to help communicate their intended meaning, with a focus on the use of: quotation marks to indicate direct speech; commas to mark grammatical boundaries within sentences; capital letters and final punctuation to mark the beginning and end of sentences
- 3e66** Grammar
3.5 use parts of speech appropriately to communicate their meaning clearly, with a focus on the use of: proper nouns for titles *(e.g., of businesses, teams)*; the possessive pronouns *my, mine, your, yours, his, her, hers, its*; action verbs in the present and simple past tenses; adjectives and adverbs; question words *(e.g., when, where, why, how)*
- 3e67** Proofreading
3.6 proofread and correct their writing using guidelines developed with peers and the teacher *(e.g., a checklist modified in a teacher-student conference to support individual writing strengths and indicate next steps; a posted class writing guideline)*
- 3e68** Publishing
3.7 use some appropriate elements of effective presentation in the finished product, including print, script, different fonts, graphics, and layout *(e.g., use legible printing and some cursive writing; use different font sizes and colours on a poster to attract attention; use proper paragraph form including spacing and margins; supply captions for photographs)*
- 3e69** Producing Finished Works
3.8 produce pieces of published work to meet identified criteria based on the expectations related to content, organization, style, use of conventions, and use of presentation strategies

4. Reflecting on Writing Skills and Strategies

- 3e70** Metacognition
4.1 identify what strategies they found most helpful before, during, and after writing and what steps they can take to improve as writers *(e.g., use a writer's notebook to record ideas, sources for future reference, and useful types of organizers for sorting information)*
Teacher prompts: “How does your writer’s notebook help you generate ideas for writing?” “How did you choose the resources you used? How were they helpful?” “What strategy did you use to organize your information before you began writing?”
- 3e71** 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 help you when you are writing?” “How does listening to or viewing different kinds of texts help you generate ideas for writing?”

- 3e72** Portfolio
4.3 select pieces of writing that they think show their best work and explain the reasons for their selection

Media Literacy

Overall Expectations

- 3e73** 1. demonstrate an understanding of a variety of media texts;
- 3e74** 2. identify some media forms and explain how the conventions and techniques associated with them are used to create meaning;
- 3e75** 3. create a variety of media texts for different purposes and audiences, using appropriate forms, conventions, and techniques;
- 3e76** 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

- 3e77** Purpose and Audience
1.1 identify the purpose and intended audience of some media texts (*e.g., this magazine is aimed at children/teens/adults; these boxes for DVDs/videos are aimed at the parents of very young children*)
Teacher prompt: “Who is this intended for? Who else would like it? Who would not like it? Why, or why not?”
- 3e78** Making Inferences/Interpreting Messages
1.2 use overt and implied messages to draw inferences and make meaning in simple media texts (*e.g., overt message of toys, clothing, or games associated with movies, television shows, or books: This product is closely connected to the characters you admire in your favourite book; implied message: If you own this product, you will be more closely connected to your favourite book and more like the characters you admire*)
Teacher prompts: “What things do you have that are related to a TV show, a movie, or a book? What do they mean to you?” “Are the roles of girls and boys similar or different in the television shows that you watch?”
- 3e79** Responding to and Evaluating Texts
1.3 express personal opinions about ideas presented in media texts (*e.g., respond to the messages in a public service announcement about recycling; explain why the Internet safety rules outlined in a school pamphlet are important*)
Teacher prompt: “Do you agree or disagree with the message that we all have a responsibility to reduce, reuse, and recycle? Why?” “Why do parents worry about Internet safety? What online rules should you know?”
- 3e80** Audience Responses
1.4 describe how different audiences might respond to specific media texts (*e.g., select a magazine that appeals to them, predict the responses of different age groups or of children from different countries to the magazine, and explain the reasons for their predictions*)
Teacher prompt: “Why do you like the magazine? Who else would like it? Why? Who would not like it? Why not?”

3e81 Point of View
1.5 identify whose point of view is presented or reflected in a media text and suggest how the text might change if a different point of view were used (*e.g., a poster advertising the zoo aimed at younger children might emphasize baby animals, whereas one aimed at adults or older children might emphasize unusual or dangerous animals*)
Teacher prompt: “Who is the intended audience for this poster? How do you know? Whose perspective is reflected? Whose perspective is not reflected?”

3e82 Production Perspectives
1.6 identify who produces selected media texts and why those texts are produced (*e.g., companies design eye-catching logos so their products will be immediately recognizable to people; designers produce clothes as fashion statements and to make money*)
Teacher prompt: “Where do we often find logos?”

2. Understanding Media Forms, Conventions, and Techniques

3e83 Form
2.1 identify elements and characteristics of some media forms (*e.g., newspapers use print and mostly black-and-white photographs; television news coverage has colour, sound, and “live” action reporting; cartoons use animated drawings of characters, while movies and plays use live actors*)
Teacher prompt: “What would you look for in a television news show that you wouldn’t find in a newspaper? And vice versa?”

3e84 Conventions and Techniques
2.2 identify the conventions and techniques used in some familiar media forms and explain how they help convey meaning (*e.g., DVDs/videos use dialogue, music, and sound effects to help explain the visual images; picture books use illustrations, layout, and different kinds of print to help explain and dramatize the printed words*) *Teacher prompt:* “Watch a section of this DVD without the sound. Watch again with sound. How does the soundtrack help convey the message?”

3. Creating Media Texts

3e85 Purpose and Audience
3.1 identify the topic, purpose, and audience for media texts they plan to create (*e.g., a collage of images conveying the mood of a poem to help classmates understand the poem*)
Teacher prompts: “How will understanding the mood help us understand the poem’s meaning?”
“Which of the images in the collage help us understand the poem better?”

3e86 Form
3.2 identify an appropriate form to suit the specific purpose and audience for a media text they plan to create (*e.g., a tape-recorded interview to present a classmate’s opinion about a favourite show, toy, or game*)
Teacher prompt: “Why would a taperecording be better than a written record of the interview?”

3e87 Conventions and Techniques
3.3 identify conventions and techniques appropriate to the form chosen for a media text they plan to create (*e.g., a pamphlet about a unit of study could require titles, headings, subheadings, captions, different font sizes, colour, and illustrations*)
Teacher prompt: “How can you use these features to help you communicate your ideas effectively?”

3e88

Producing Media Texts

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

- *a series of video stills or photographs about a topic of their choice to display to the class*
- *a simple slide show for a multimedia presentation to a younger class*
- *a tape-recorded interview with a classmate about a favourite show, toy, or game*
- *a comic strip for publication in a class newsletter*
- *a skit, including sound effects, based on a photograph*
- *a compilation of images from magazines, newspapers, or the Internet that convey the mood of a poem or song*
- *an illustrated pamphlet about a unit of study*
- *a storyboard for the climactic scene in a short story*
- *a scrapbook of images from newspapers, magazines, posters, the Internet, and so on, illustrating camera shots from different angles and distances)*

4. Reflecting on Media Literacy Skills and Strategies

3e89

Metacognition

4.1 identify, initially with support and direction, what strategies they found most helpful in making sense of and creating media texts

Teacher prompt: “What skills did you use to understand this book/video/ Internet site? Would you use your skills differently or the same way the next time you view a similar work?”

3e90

Interconnected Skills

4.2 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 prompt: “What language skills did you need to use to make sense of the video? How does your knowledge of fiction and non-fiction help you understand videos/movies/DVDs?”

Mathematical Process Expectations**Problem Solving**

- 3m1** • apply developing problem-solving strategies as they pose and solve problems and conduct investigations, to help deepen their mathematical understanding;

Reasoning And Proving

- 3m2** • apply developing reasoning skills (e.g., pattern recognition, classification) to make and investigate conjectures (e.g., through discussion with others);

Reflecting

- 3m3** • 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

- 3m4** • 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

- 3m5** • make connections among simple mathematical concepts and procedures, and relate mathematical ideas to situations drawn from everyday contexts;

Representing

- 3m6** • 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

- 3m7** • 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**

- 3m8** • read, represent, compare, and order whole numbers to 1000, and use concrete materials to represent fractions and money amounts to \$10;
- 3m9** • demonstrate an understanding of magnitude by counting forward and backwards by various numbers and from various starting points;
- 3m10** • solve problems involving the addition and subtraction of single- and multi-digit whole numbers, using a variety of strategies, and demonstrate an understanding of multiplication and division.

Quantity Relationships

- 3m11** – represent, compare, and order whole numbers to 1000, using a variety of tools (e.g., base ten materials or drawings of them, number lines with increments of 100 or other appropriate amounts);
- 3m12** – read and print in words whole numbers to one hundred, using meaningful contexts (e.g., books, speed limit signs);
- 3m13** – identify and represent the value of a digit in a number according to its position in the number (e.g., use base ten materials to show that the 3 in 324 represents 3 hundreds);
- 3m14** – compose and decompose three-digit numbers into hundreds, tens, and ones in a variety of ways, using concrete materials (e.g., use base ten materials to decompose 327 into 3 hundreds, 2 tens, and 7 ones, or into 2 hundreds, 12 tens, and 7 ones);
- 3m15** – round two-digit numbers to the nearest ten, in problems arising from real-life situations;
- 3m16** – represent and explain, using concrete materials, the relationship among the numbers 1, 10, 100, and 1000, (e.g., use base ten materials to represent the relationship between a decade and a century, or a century and a millennium);

- 3m17** – divide whole objects and sets of objects into equal parts, and identify the parts using fractional names (e.g., one half; three thirds; two fourths or two quarters), without using numbers in standard fractional notation;
- 3m18** – represent and describe the relationships between coins and bills up to \$10 (e.g., "There are eight quarters in a toonie and ten dimes in a loonie.");
- 3m19** – estimate, count, and represent (using the \$ symbol) the value of a collection of coins and bills with a maximum value of \$10;
- 3m20** – solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 1000 (Sample problem: Do you know anyone who has lived for close to 1000 days? Explain your reasoning.).

Counting

- 3m21** – count forward by 1's, 2's, 5's, 10's, and 100's to 1000 from various starting points, and by 25's to 1000 starting from multiples of 25, using a variety of tools and strategies (e.g., skip count with and without the aid of a calculator; skip count by 10's using dimes);
- 3m22** – count backwards by 2's, 5's, and 10's from 100 using multiples of 2, 5, and 10 as starting points, and count backwards by 100's from 1000 and any number less than 1000, using a variety of tools (e.g., number lines, calculators, coins) and strategies.

Operational Sense

- 3m23** – solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies (e.g., to add $37 + 26$, add the tens, add the ones, then combine the tens and ones, like this: $30 + 20 = 50$, $7 + 6 = 13$, $50 + 13 = 63$);
- 3m24** – add and subtract three-digit numbers, using concrete materials, student-generated algorithms, and standard algorithms;
- 3m25** – use estimation when solving problems involving addition and subtraction, to help judge the reasonableness of a solution;
- 3m26** – add and subtract money amounts, using a variety of tools (e.g., currency manipulatives, drawings), to make simulated purchases and change for amounts up to \$10 (Sample problem: You spent 5 dollars and 75 cents on one item and 10 cents on another item. How much did you spend in total?);
- 3m27** – relate multiplication of one-digit numbers and division by one-digit divisors to real-life situations, using a variety of tools and strategies (e.g., place objects in equal groups, use arrays, write repeated addition or subtraction sentences) (Sample problem: Give a real-life example of when you might need to know that 3 groups of 2 is 3×2 .);
- 3m28** – multiply to 7×7 and divide to $49 \div 7$, using a variety of mental strategies (e.g., doubles, doubles plus another set, skip counting).

Measurement

Overall Expectations

- 3m29** • estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using standard units;
- 3m30** • compare, describe, and order objects, using attributes measured in standard units.

Attributes, Units, and Measurement Sense

- 3m31** – estimate, measure, and record length, height, and distance, using standard units (i.e., centimetre, metre, kilometre) (Sample problem: While walking with your class, stop when you think you have travelled one kilometre.);
- 3m32** – draw items using a ruler, given specific lengths in centimetres (Sample problem: Draw a pencil that is 5 cm long);
- 3m33** – read time using analogue clocks, to the nearest five minutes, and using digital clocks (e.g., 1:23 means twenty-three minutes after one o'clock), and represent time in 12-hour notation;

- 3m34** – estimate, read (i.e., using a thermometer), and record positive temperatures to the nearest degree Celsius (i.e., using a number line; using appropriate notation) (Sample problem: Record the temperature outside each day using a thermometer, and compare your measurements with those reported in the daily news.);
- 3m35** – identify benchmarks for freezing, cold, cool, warm, hot, and boiling temperatures as they relate to water and for cold, cool, warm, and hot temperatures as they relate to air (e.g., water freezes at 0°C; the air temperature on a warm day is about 20°C, but water at 20°C feels cool);
- 3m36** – estimate, measure, and record the perimeter of two-dimensional shapes, through investigation using standard units (Sample problem: Estimate, measure, and record the perimeter of your notebook.);
- 3m37** – estimate, measure (i.e., using centimetre grid paper, arrays), and record area (e.g., if a row of 10 connecting cubes is approximately the width of a book, skip counting down the cover of the book with the row of cubes [i.e., counting 10, 20, 30, ...] is one way to determine the area of the book cover);
- 3m38** – choose benchmarks for a kilogram and a litre to help them perform measurement tasks;
- 3m39** – estimate, measure, and record the mass of objects (e.g., can of apple juice, bag of oranges, bag of sand), using the standard unit of the kilogram or parts of a kilogram (e.g., half, quarter);
- 3m40** – estimate, measure, and record the capacity of containers (e.g., juice can, milk bag), using the standard unit of the litre or parts of a litre (e.g., half, quarter).

Measurement Relationships

- 3m41** – compare standard units of length (i.e., centimetre, metre, kilometre) (e.g., centimetres are smaller than metres), and select and justify the most appropriate standard unit to measure length;
- 3m42** – compare and order objects on the basis of linear measurements in centimetres and/or metres (e.g., compare a 3 cm object with a 5 cm object; compare a 50 cm object with a 1 m object) in problem-solving contexts;
- 3m43** – compare and order various shapes by area, using congruent shapes (e.g., from a set of pattern blocks or Power Polygons) and grid paper for measuring (Sample problem: Does the order of the shapes change when you change the size of the pattern blocks you measure with?);
- 3m44** – describe, through investigation using grid paper, the relationship between the size of a unit of area and the number of units needed to cover a surface (Sample problem: What is the difference between the numbers of squares needed to cover the front of a book, using centimetre grid paper and using two-centimetre grid paper?);
- 3m45** – compare and order a collection of objects, using standard units of mass (i.e., kilogram) and/or capacity (i.e., litre);
- 3m46** – solve problems involving the relationships between minutes and hours, hours and days, days and weeks, and weeks and years, using a variety of tools (e.g., clocks, calendars, calculators).

Geometry and Spatial Sense

Overall Expectations

- 3m47** • compare two-dimensional shapes and three-dimensional figures and sort them by their geometric properties;
- 3m48** • describe relationships between two-dimensional shapes, and between two-dimensional shapes and three-dimensional figures;
- 3m49** • identify and describe the locations and movements of shapes and objects.

Geometric Properties

- 3m50** – use a reference tool (e.g., paper corner, pattern block, carpenter's square) to identify right angles and to describe angles as greater than, equal to, or less than a right angle (Sample problem: Which pattern blocks have angles bigger than a right angle?);

- 3m51** – identify and compare various polygons (i.e., triangles, quadrilaterals, pentagons, hexagons, heptagons, octagons) and sort them by their geometric properties (i.e., number of sides; side lengths; number of interior angles; number of right angles);
- 3m52** – compare various angles, using concrete materials and pictorial representations, and describe angles as bigger than, smaller than, or about the same as other angles (e.g., "Two of the angles on the red pattern block are bigger than all the angles on the green pattern block.");
- 3m53** – compare and sort prisms and pyramids by geometric properties (i.e., number and shape of faces, number of edges, number of vertices), using concrete materials;
- 3m54** – construct rectangular prisms (e.g., using given paper nets; using Polydrons), and describe geometric properties (i.e., number and shape of faces, number of edges, number of vertices) of the prisms.

Geometric Relationships

- 3m55** – solve problems requiring the greatest or least number of two-dimensional shapes (e.g., pattern blocks) needed to compose a larger shape in a variety of ways (e.g., to cover an outline puzzle) (Sample problem: Compose a hexagon using different numbers of smaller shapes.);
- 3m56** – explain the relationships between different types of quadrilaterals (e.g., a square is a rectangle because a square has four sides and four right angles; a rhombus is a parallelogram because opposite sides of a rhombus are parallel);
- 3m57** – identify and describe the two-dimensional shapes that can be found in a three-dimensional figure (Sample problem: Build a structure from blocks, toothpicks, or other concrete materials, and describe it using geometric terms, so that your partner will be able to build your structure without seeing it.);
- 3m58** – describe and name prisms and pyramids by the shape of their base (e.g., rectangular prism, square-based pyramid);
- 3m59** – identify congruent two-dimensional shapes by manipulating and matching concrete materials (e.g., by translating, reflecting, or rotating pattern blocks).

Location and Movement

- 3m60** – describe movement from one location to another using a grid map (e.g., to get from the swings to the sandbox, move three squares to the right and two squares down);
- 3m61** – identify flips, slides, and turns, through investigation using concrete materials and physical motion, and name flips, slides, and turns as reflections, translations, and rotations (e.g., a slide to the right is a translation; a turn is a rotation);
- 3m62** – complete and describe designs and pictures of images that have a vertical, horizontal, or diagonal line of symmetry (Sample problem: Draw the missing portion of the given butterfly on grid paper.).

Patterning and Algebra

Overall Expectations

- 3m63** • describe, extend, and create a variety of numeric patterns and geometric patterns;
- 3m64** • demonstrate an understanding of equality between pairs of expressions, using addition and subtraction of one- and two-digit numbers.

Patterns and Relationships

- 3m65** – identify, extend, and create a repeating pattern involving two attributes (e.g., size, colour, orientation, number), using a variety of tools (e.g., pattern blocks, attribute blocks, drawings) (Sample problem: Create a repeating pattern using three colours and two shapes.);
- 3m66** – identify and describe, through investigation, number patterns involving addition, subtraction, and multiplication, represented on a number line, on a calendar, and on a hundreds chart (e.g., the multiples of 9 appear diagonally in a hundreds chart);

- 3m67** – extend repeating, growing, and shrinking number patterns (Sample problem: Write the next three terms in the pattern 4, 8, 12, 16, ...);
- 3m68** – create a number pattern involving addition or subtraction, given a pattern represented on a number line or a pattern rule expressed in words (Sample problem: Make a number pattern that starts at 0 and grows by adding 7 each time.);
- 3m69** – represent simple geometric patterns using a number sequence, a number line, or a bar graph (e.g., the given growing pattern of toothpick squares can be represented numerically by the sequence 4, 7, 10, ..., which represents the number of toothpicks used to make each figure);
- 3m70** – demonstrate, through investigation, an understanding that a pattern results from repeating an action (e.g., clapping, taking a step forward every second), repeating an operation (e.g., addition, subtraction), using a transformation (e.g., slide, flip, turn), or making some other repeated change to an attribute (e.g., colour, orientation).

Expressions and Equality

- 3m71** – determine, through investigation, the inverse relationship between addition and subtraction (e.g., since $4 + 5 = 9$, then $9 - 5 = 4$; since $16 - 9 = 7$, then $7 + 9 = 16$);
- 3m72** – determine, the missing number in equations involving addition and subtraction of one- and two-digit numbers, using a variety of tools and strategies (e.g., modelling with concrete materials, using guess and check with and without the aid of a calculator) (Sample problem: What is the missing number in the equation $25 - 4 = 15 + \quad ?$);
- 3m73** – identify, through investigation, the properties of zero and one in multiplication (i.e., any number multiplied by zero equals zero; any number multiplied by 1 equals the original number) (Sample problem: Use tiles to create arrays that represent 3×3 , 3×2 , 3×1 , and 3×0 . Explain what you think will happen when you multiply any number by 1, and when you multiply any number by 0.);
- 3m74** – identify, through investigation, and use the associative property of addition to facilitate computation with whole numbers (e.g., "I know that $17 + 16$ equals $17 + 3 + 13$. This is easier to add in my head because I get $20 + 13 = 33$.").

Data Management and Probability

Overall Expectations

- 3m75** • collect and organize categorical or discrete primary data and display the data using charts and graphs, including vertical and horizontal bar graphs, with labels ordered appropriately along horizontal axes, as needed;
- 3m76** • read, describe, and interpret primary data presented in charts and graphs, including vertical and horizontal bar graphs;
- 3m77** • predict and investigate the frequency of a specific outcome in a simple probability experiment.

Collection and Organization of Data

- 3m78** – demonstrate an ability to organize objects into categories, by sorting and classifying objects using two or more attributes simultaneously (Sample problem: Sort a collection of buttons by size, colour, and number of holes.);
- 3m79** – collect data by conducting a simple survey about themselves, their environment, issues in their school or community, or content from another subject;
- 3m80** – collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence (e.g., in a pictograph, one car sticker represents 3 cars; on a bar graph, one square represents 2 students) (Sample problem: Graph data related to the eye colour of students in the class, using a vertical bar graph. Why does the scale on the vertical axis include values that are not in the set of data?).

Data Relationships

- 3m81** – read primary data presented in charts, tables, and graphs (including vertical and horizontal bar graphs), then describe the data using comparative language, and describe the shape of the data (e.g., "Most of the data are at the high end."; "All of the data values are different.");
- 3m82** – interpret and draw conclusions from data presented in charts, tables, and graphs;
- 3m83** – demonstrate an understanding of mode (e.g., "The mode is the value that shows up most often on a graph."), and identify the mode in a set of data.

Probability

- 3m84** – predict the frequency of an outcome in a simple probability experiment or game (e.g., "I predict that an even number will come up 5 times and an odd number will come up 5 times when I roll a number cube 10 times."), then perform the experiment, and compare the results with the predictions, using mathematical language;
- 3m85** – demonstrate, through investigation, an understanding of fairness in a game and relate this to the occurrence of equally likely outcomes.

UNDERSTANDING LIFE SYSTEMS: Growth and Changes in Plants

Overall Expectations

3s1
CR2007 1. assess ways in which plants have an impact on society and the environment, and ways in which human activity has an impact on plants and plant habitats;

3s2
CR2007 2. investigate similarities and differences in the characteristics of various plants, and ways in which the characteristics of plants relate to the environment in which they grow;

3s3
CR2007 3. demonstrate an understanding that plants grow and change and have distinct characteristics.

1. Relating Science and Technology to Society and the Environment

3s4
CR2007 1.1 assess ways in which plants are important to humans and other living things, taking different points of view into consideration (e.g., the point of view of home builders, gardeners, nursery owners, vegetarians), and suggest ways in which humans can protect plants. Sample prompts: Plants provide oxygen and food that other living things need to survive. Plants use and store carbon dioxide, helping reduce the amount of this greenhouse gas in the atmosphere. Trees reduce humans' energy use in summer by providing cooling shade. Leaves, twigs, and branches of trees and shrubs block erosion-causing rainfall. Grass and shrubs prevent soil from washing away. Roots, leaves, and trunks provide homes for wildlife. Aboriginal people use plants for many medicines.

3s5
CR2007 1.2 assess the impact of different human activities on plants, and list personal actions they can engage in to minimize harmful effects and enhance good effects. Sample prompts: When humans provide common house plants and blooming potted plants with an appropriate environment, they help fight pollution indoors. When humans plant trees, they benefit the environment in many different ways. When humans fill in wetlands to build houses, they destroy an important habitat that supports many plants. When humans pick wildflowers or dig them up to replant in their home gardens, they harm a natural habitat that supports many living things. When humans plant non-native plants and trees that need pesticides and/or a lot of water to survive, they drive out native plants and trees that are adapted to our climate and that provide habitat and food for native birds, butterflies, and mammals.

2. Developing Investigation and Communication Skills

3s6
CR2007 2.1 follow established safety procedures during science and technology investigations (e.g., avoid touching eyes when handling plants; never taste any part of a plant unless instructed to do so by the teacher)

3s7
CR2007 2.2 observe and compare the parts of a variety of plants (e.g., roots of grass, carrot, dandelion; stem of cactus, carnation, tree; leaves of geranium, spider plant, pine tree)

3s8
CR2007 2.3 germinate seeds and record similarities and differences as seedlings develop (e.g., plant quick-growing seeds – nasturtium, morning glory, sunflower, tomato, beet, or radish seeds – in peat pellets to observe growth)

3s9
CR2007 2.4 investigate ways in which a variety of plants adapt and/or react to their environment, including changes in their environment, using a variety of methods (e.g., read a variety of non-fiction texts; interview plant experts; view DVDs or CD-ROMs)

3s10
CR2007 2.5 use scientific inquiry/experimentation skills (see page 12), and knowledge acquired from previous investigations, to investigate a variety of ways in which plants meet their basic needs. Sample guiding questions: How do plants meet their need for air, water, light, warmth, and space? What are different ways in which we can help plants meet their needs?

3s11
CR2007 2.6 use appropriate science and technology vocabulary, including stem, leaf, root, pistil, stamen, flower, adaptation, and germination, in oral and written communication

3s12
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., make illustrated entries in a personal science journal to describe plant characteristics and adaptations to harsh environments)

3. Understanding Basic Concepts

3s13 CR2007	3.1 describe the basic needs of plants, including air, water, light, warmth, and space
3s14 CR2007	3.2 identify the major parts of plants, including root, stem, flower, stamen, pistil, leaf, seed, and fruit, and describe how each contributes to the plant's survival within the plant's environment (e.g., the roots soak up food and water for the plant; the stem carries water and food to the rest of the plant; the leaves make food for the plant with help from the sun; the flowers grow fruit and seeds for new plants)
3s15 CR2007	3.3 describe the changes that different plants undergo in their life cycles (e.g., some plants grow from bulbs to flowers, and when the flowers die off the bulb produces little bulbs that will bloom the next year; some plants grow from germination of a seed to the production of a fruit containing seeds that are then scattered by humans, animals, or the wind so that new plants can grow)
3s16 CR2007	3.4 describe how most plants get energy to live directly from the sun (e.g., plants turn the energy from the sun into food for themselves) and how plants help other living things to get energy from the sun (e.g., Other living things, which cannot "eat" sunshine, eat the plants to get the energy. They also get energy when they eat the animals that eat the plants.)
3s17 CR2007	3.5 describe ways in which humans from various cultures, including Aboriginal people, use plants for food, shelter, medicine, and clothing (e.g., food – from rice plants; houses for shelter – from the wood of trees; medicines – from herbs; clothing – from cotton plants)
3s18 CR2007	3.6 describe ways in which plants and animals depend on each other (e.g., plants provide food for energy; animals help disperse pollen and seeds, and provide manure that fertilizes the soil in which plants grow; plants need the carbon dioxide that animals breathe out, and animals need the oxygen that plants release into the air)
3s19 CR2007	3.7 describe the different ways in which plants are grown for food (e.g., on farms, in orchards, greenhouses, home gardens), and explain the advantages and disadvantages of locally grown and organically produced food, including environmental benefits
3s20 CR2007	3.8 identify examples of environmental conditions that may threaten plant and animal survival (e.g., extreme heat and cold; floods and/or droughts; changes in habitat because of human activities such as construction, use of gas-powered personal watercraft on lakes)

UNDERSTANDING STRUCTURES AND MECHANISMS: Strong and Stable Structures

Overall Expectations

3s21 CR2007	1. assess the importance of form, function, strength, and stability in structures through time;
3s22 CR2007	2. investigate strong and stable structures to determine how their design and materials enable them to perform their load-bearing function;
3s23 CR2007	3. demonstrate an understanding of the concepts of structure, strength, and stability and the factors that affect them.

1. Relating Science and Technology to Society and the Environment

3s24 CR2007	1.1 assess effects of strong and stable structures on society and the environment (e.g., reliable loadbearing structures are essential in all areas of life for shelter, transportation, and many other everyday purposes; strong and stable structures can endure for long periods of time and provide a historical record of other societies and cultures; strong and stable structures can be hard to dispose of when their usefulness is ended and may then have a negative effect on the environment) Sample guiding questions: What are some structures that we see or use every day that we depend on to be strong and stable (e.g., bicycle, table, airplane, bridge, tractor, skyscraper)? What features of structures such as old covered bridges, heritage homes, the Pyramids, and the Parthenon have enabled them to still be standing today? What can we learn about strength, stability, form, and function from studying these structures?
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3s25 CR2007	1.2 assess the environmental impact of structures built by various animals and those built by humans Sample guiding questions: What kinds of materials are used in human constructions (e.g., bricks, cement, wood, adobe, clay/mud, ice/snow)? In animal constructions? How do the purposes of animal structures compare to those of humans? What is the impact on the environment of a dam built by a beaver? Of a nest built by a tent caterpillar in a tree? Of an anthill built in a backyard? What is the impact of homes, shopping plazas, playgrounds, and bridges built by humans? What effects do traditional Aboriginal homes have on the environment?
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2. Developing Investigation and Communication Skills

3s26 CR2007	2.1 follow established safety procedures during science and technology investigations (e.g., carry scissors and other cutting tools in a safe manner)
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3s27 CR2007	2.2 investigate, through experimentation, how various materials (e.g., paper and wood) and construction techniques (e.g., folding, adding layers, twisting/braiding, changing shapes) can be used to add strength to structures
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3s28 CR2007	2.3 investigate, through experimentation, the effects of pushing, pulling, and other forces on the shape and stability of simple structures (e.g., the effect of adding one or more struts on the strength of a tower; the effect of adding ties on the strength of a bridge; the effect of adding weight to the base of a tower on the stability of the tower)
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3s29 CR2007	2.4 use technological problem-solving skills (see page 16), and knowledge acquired from previous investigations, to design and build a strong and stable structure that serves a purpose (e.g., a place to store lunch bags, a place to put wet boots)
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3s30 CR2007	2.5 use appropriate science and technology vocabulary, including compression, tension, strut, ties, strength, and stability, in oral and written communication
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3s31 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., an oral report to the class on the results of experiments to strengthen materials)
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3. Understanding Basic Concepts

3s32 CR2007	3.1 define a structure as a supporting framework, with a definite size, shape, and purpose, that holds a load (e.g., a running shoe, a tepee, a bicycle, an igloo)
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3s33 CR2007	3.2 identify structures in the natural environment (e.g., a tree, a bees' nest/hive) and in the built environment (e.g., a totem pole, a fence, a pyramid, the CN Tower)
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3s34 CR2007	3.3 identify the strength of a structure as its ability to support a load
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3s35 CR2007	3.4 identify the stability of a structure as its ability to maintain balance and stay fixed in one spot
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3s36 CR2007	3.5 identify properties of materials (e.g., strength, flexibility, durability) that need to be considered when building structures
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3s37 CR2007	3.6 describe ways in which the strength of different materials can be altered (e.g., by folding, adding layers, twisting/braiding, changing their shape)
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3s38 CR2007	3.7 describe ways to improve a structure's strength (e.g., by using triangulation or crossmembers) and stability (e.g., by lowering the centre of gravity)
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3s39 CR2007	3.8 explain how strength and stability enable a structure (e.g., bridge, tent) to perform a specific function
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3s40 3.9 describe ways in which different forces can affect the shape, balance, or position of structures (e.g., a load may cause a cardboard box to buckle)
CR2007

3s41 3.10 identify the role of struts and ties in structures under load (e.g., a strut is added to a wooden frame to resist compression that might cause its collapse; a tie is added to a roof truss to resist tension that might cause the roof to collapse from the weight of the shingles)
CR2007

UNDERSTANDING MATTER AND ENERGY: Forces Causing Movement

Overall Expectations

3s42 1. assess the impact of various forces on society and the environment;
CR2007

3s43 2. investigate devices that use forces to create controlled movement;
CR2007

3s44 3. demonstrate an understanding of how forces cause movement and changes in movement.
CR2007

1. Relating Science and Technology to Society and the Environment

3s45 1.1 assess the effects of the action of forces in nature (natural phenomena) on the natural and built environment, and identify ways in which human activities can reduce or enhance this impact Sample prompts: Erosion: Heavy rains and water run-off naturally erode soil. Humans make erosion happen faster by cutting down trees, removing shrubs and plants, and having too many animals on farmland. When soil is lost through erosion, it pollutes rivers, lakes, and other water systems. When soil is lost on farmlands, farmers cannot grow as many crops. Depleted soil produces crops that provide less nourishment to people. What action can humans take to help prevent erosion? Landslides: Landslides can happen anywhere and are triggered by rains, floods, earthquakes, and other natural events. Humans contribute to landslides when they change the land to put in lawns, gardens, roads, and houses. Landslides can destroy houses, transportation routes, and utilities. They can cause flooding and pollute water. They can carry trees and plants away with them. What action can humans take to help prevent landslides?
CR2007

3s46 1.2 assess the impact of safety devices that minimize the effects of forces in various human activities Sample prompts: What are the costs and benefits of using seatbelts in cars, knee and elbow pads and wrist guards for roller blading, helmets for cycling and hockey, sport shoes designed for high impact sports like aerobics and basketball?
CR2007

2. Developing Investigation and Communication Skills

3s47 2.1 follow established safety procedures during science and technology investigations (e.g., use eye protection when twisting, bending, compressing, or stretching materials)
CR2007

3s48 2.2 investigate forces that cause an object to start moving, stop moving, or change direction (e.g., release a wound-up elastic band to propel a toy vehicle; pull on a leash to stop a dog; hit a ball with a bat; hold papers on a refrigerator door using magnets)
CR2007

3s49 2.3 conduct investigations to determine the effects of increasing or decreasing the amount of force applied to an object (e.g., using two magnets instead of one to pick up pins; changing the number of people on one side of a tug of war; rubbing a balloon ten times instead of five times on a wool sweater to create a static charge)
CR2007

3s50 2.4 use technological problem-solving skills (see page 16), and knowledge acquired from previous investigations, to design and build devices that use forces to create controlled movement (e.g., an airplane propelled by hand or by an elastic band; a boat that holds paper clips and moves through water using magnets; a crane that lifts a load; a timed marble run) Sample guiding questions: What is the purpose of your device? What force(s) are being used? How does your device move? How do the force(s) control the movement? How might your device be improved?
CR2007

3s51 2.5 use appropriate science and technology vocabulary, including push, pull, load, distance, and speed, in oral and written communication
CR2007

3s52 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., give a demonstration to show how a device was constructed and how it performs; use a drawing to illustrate the design alterations needed to improve a device; describe with pictures and/or in writing the steps required to build a device)
CR2007

3. Understanding Basic Concepts

3s53 CR2007	3.1 identify a force as a push or a pull that causes an object to move
3s54 CR2007	3.2 identify different kinds of forces (e.g., gravity – the force that pulls objects towards the earth; electrostatic force – the push or pull that happens with charged objects; magnetic force – the force of a magnet that attracts objects containing iron or nickel)
3s55 CR2007	3.3 describe how different forces (e.g., magnetism, muscular force, gravitational force, friction) applied to an object at rest can cause the object to start, stop, attract, repel, or change direction
3s56 CR2007	3.4 explain how forces are exerted through direct contact (e.g., pushing a door, pulling a toy) or through interaction at a distance (e.g., magnetism, gravity)
3s57 CR2007	3.5 identify ways in which forces are used in their daily lives (e.g., magnetism – fridge magnet; gravity – a falling ball; friction – bicycle brakes)

UNDERSTANDING EARTH AND SPACE SYSTEMS: Soils in the Environment

Overall Expectations

3s58 CR2007	1. assess the impact of soils on society and the environment, and of society and the environment on soils;
3s59 CR2007	2. investigate the composition and characteristics of different soils;
3s60 CR2007	3. demonstrate an understanding of the composition of soils, the types of soils, and the relationship between soils and other living things.

1. Relating Science and Technology to Society and the Environment

3s61 CR2007	1.1 assess the impact of soils on society and the environment, and suggest ways in which humans can enhance positive effects and/or lessen or prevent harmful effects Sample prompts: Poor soil affects both a plant's ability to take up the nutrients it needs and the quality of the nutrients that are passed from the plant to humans. Some soils do not provide any of the nutrients that are needed to support plant life (e.g., sand in the desert). Landslides can be caused in part by soil conditions and the type of soil in a particular area.
3s62 CR2007	1.2 assess the impact of human action on soils, and suggest ways in which humans can affect soils positively and/or lessen or prevent harmful effects on soils Sample prompts: Erosion caused by natural events such as heavy rain or waves and erosion caused by human actions affect soil conditions and cause water pollution. When houses and other buildings are constructed, trees and plants and the top or best layer of soil are often removed from the building site.

2. Developing Investigation and Communication Skills

3s63 CR2007	2.1 follow established safety procedures during science and technology investigations (e.g., wash hands after working with soil samples)
3s64 CR2007	2.2 investigate the components of soil (e.g., nonliving things such as pebbles and decaying matter; living things such as organic matter, bacteria, earthworms, and insects), the condition of soil (e.g., wet, dry), and additives found in soil (e.g., pesticides, fertilizers, salt), using a variety of soil samples (e.g., sand, clay, loam) from different local environments, and explain how the different amounts of these components in a soil sample determine how the soil can be used
3s65 CR2007	2.3 use scientific inquiry/experimentation skills (see page 12), and knowledge and skills acquired from previous investigations, to determine which type(s) of soil (e.g., sandy soil, clay soil, loam) will sustain life Sample guiding questions: What question(s) are you trying to answer with your experiment? What do you predict will happen in your experiment? In what ways will you control the light and/or water? In what ways will you record your observations? What conclusions can you make from your observations? How would this information help someone else (e.g., a gardener)?

3s66
CR2007 2.4 investigate the process of composting, and explain some advantages and disadvantages of composting (e.g., set up a pop-bottle composter in the classroom, and observe what happens over time) Sample guiding questions: What is composting? Where does composting happen naturally? What are some good things about composting? Why might people not be able to or want to compost? What “ingredients” do we need to start a classroom composter? What things should not go into the composter? As the compost “cooks”, what changes do you notice? What happens to the things that we put into the classroom composter? How will we use our compost?

3s67
CR2007 2.5 use appropriate science and technology vocabulary, including clay, sand, loam, pebbles, earth materials, and soil, in oral and written communication

3s68
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., record in words and pictures what happens when soil and water are shaken together in a container; prepare a display comparing the composition of soils from different locations)

3. Understanding Basic Concepts

3s69
CR2007 3.1 identify and describe the different types of soils (e.g., Sandy soil is made up of minerals and tiny pieces of rock that have come from the erosion and weathering of rocks. It feels gritty and does not stick together well. Sandy soil drains easily and quickly after a rain and warms up quickly in the spring, but does not hold water and nutrients as well as clay soil, and is eroded more easily. Loamy soil is made up of sand, silt, and clay in relatively equal amounts. It sticks together better than sand but not as well as clay. Loamy soil holds water and nutrients well, and also drains well so that sufficient air can reach the roots. Clay soil is a very fine-grained soil that is plastic when wet but hard when dried. It feels slick and smooth. Clay soils have poor drainage and aeration.)

3s70
CR2007 3.2 identify additives that might be in soil but that cannot always be seen (e.g., pesticides, fertilizers, salt)

3s71
CR2007 3.3 describe the interdependence between the living and non-living things that make up soil (e.g., earthworms ingest the soil and absorb the nutrients, then their castings return the nutrients to the soil; the roots of plants use the soil as an anchor to keep the plants from blowing away)

3s72
CR2007 3.4 describe ways in which the components of various soils enable the soil to provide shelter/ homes and/or nutrients for different kinds of living things (e.g., microscopic bacteria and micro-organisms feed on decaying matter in the soil; roots of plants absorb minerals from the soil)

HC: Early Settlements in Upper Canada

Overall Expectations

- 3z1** • describe the communities of early settlers and First Nation peoples in Upper Canada around 1800;
- 3z2** • use a variety of resources and tools to gather, process, and communicate information about interactions between new settlers and existing communities, including First Nation peoples, and the impact of factors such as heritage, natural resources, and climate on the development of early settler communities;
- 3z3** • compare aspects of life in early settler communities and present-day communities.

Knowledge and Understanding

- 3z4** – identify the countries of origin of the people who settled in Upper Canada around 1800 (e.g., United States, United Kingdom, France, Germany);
- 3z5** – identify the areas of early settlement in Upper Canada (e.g., English/Niagara; Francophone/Penetanguishene; African-American/Chatham; Mennonite/Kitchener; Mohawk/Brantford);
- 3z6** – identify the First Nation peoples in Upper Canada around 1800 (i.e., Ojibway, Iroquois Confederacy), say where they lived, and describe their lifestyles;
- 3z7** – identify factors that helped shape the development of early settlements (e.g., lakes and rivers for trade and transportation; origins of early settlers; climate; natural resources);
- 3z8** – explain how the early settlers valued, used, and looked after natural resources (e.g., water, forests, land);
- 3z9** – describe what early settlers learned from First Nation peoples that helped them adapt to their new environment (e.g., knowledge about medicine, food, farming, transportation);
- 3z10** – describe the major components of an early settlement (e.g., grist mill, church, school, general store, blacksmith's shop);
- 3z11** – describe the various roles of male and female settlers (e.g., farm worker, minister, teacher, merchant, blacksmith, homemaker).

Inquiry/Research and Communication Skills

- 3z12** – ask questions to gain information and explore alternatives (e.g., concerning relationships between community and environment);
- 3z13** – use primary and secondary sources to locate key information about early settler communities (e.g., *primary sources*: diaries or journals, local museums, early settlers' houses, forts, villages; *secondary sources*: maps, illustrations, print materials, videos, CD-ROMs);
- 3z14** – collect information and draw conclusions about human and environmental interactions during the early settlement period (e.g., settlers storing food for long winters, using plants for medicinal purposes, using waterways for transportation);
- 3z15** – make and read a wide variety of graphs, charts, diagrams, maps, and models to understand and share their findings about early settlements in Upper Canada (e.g., a research organizer showing trades and tools; illustrations of period clothing; maps of settlements, including First Nation communities);
- 3z16** – use media works, oral presentations, written notes and descriptions, and drawings to communicate research findings (e.g., a model of an early settler home, a diorama of a First Nation settlement, a poster encouraging immigration to Upper Canada);
- 3z17** – use appropriate vocabulary (e.g., *pioneer, settlers, grist mill, settlement, general store, blacksmith, First Nation peoples*) to describe their inquiries and observations.

Application

- 3z18** – compare and contrast aspects of daily life for early settler and/or First Nation children in Upper Canada and children in present-day Ontario (e.g., food, education, work and play);
- 3z19** – compare and contrast aspects of life in early settler and/or First Nation communities in Upper Canada and in their own community today (e.g., services, jobs, schools, stores, use and management of natural resources);
- 3z20** – compare and contrast buildings/dwellings in early settler and/or First Nation communities in Upper Canada with buildings and dwellings in present-day Ontario;
- 3z21** – compare and contrast tools and technologies used by early settlers and/or First Nation peoples with present-day tools and technologies (e.g., quill/word processor; sickle/combine harvester; methods of processing lumber, grain, and other products);
- 3z22** – re-create some social activities or celebrations of early settler and/or First Nation communities in Upper Canada.

CWC: Urban and Rural Communities

Overall Expectations

- 3z23** • identify and compare distinguishing features of urban and rural communities;
- 3z24** • use a variety of resources and tools to gather, process, and communicate geographic information about urban and rural communities;
- 3z25** • explain how communities interact with each other and the environment to meet human needs.

Knowledge and Understanding

- 3z26** – identify geographic and environmental factors that explain the location of various urban and rural communities, with examples from Ontario (e.g., Sudbury/mining, Ottawa/government, Hamilton/industry, Bradford/farming);
- 3z27** – compare land use (e.g., housing, recreation, stores, industry) and access to natural resources (e.g., water, trees) in urban and rural communities;
- 3z28** – compare transportation in urban and rural communities;
- 3z29** – compare population density and diversity in urban and rural communities;
- 3z30** – compare buildings and structures in urban and rural communities.

Inquiry/Research and Communication Skills

- 3z31** – ask questions to gain information about urban and rural communities (e.g., How do changes in the environment affect life in a community? Why is mining the major industry in Sudbury? How does population growth affect life in an urban or rural setting?);
- 3z32** – use primary and secondary sources to locate key information about urban and rural communities (e.g., *primary sources*: surveys, interviews, fieldwork; *secondary sources*: charts, graphs, maps, models, CD-ROMs);
- 3z33** – sort and classify information about communities to identify issues and solve problems;
- 3z34** – construct and read graphs, charts, diagrams, maps, and models to clarify and display information about urban and rural communities (e.g., to provide a profile of a community and its environment);
- 3z35** – use media works, oral presentations, written notes and descriptions, drawings, tables, charts, maps, and graphs to communicate information about urban and rural communities (e.g., comparisons of various community features);
- 3z36** – use appropriate vocabulary (e.g., *urban, rural, residential, industrial, commercial, natural resources, multicultural, environment, population*) to communicate the results of inquiries and observations about urban and rural communities.

Map, Globe, and Graphic Skills *

- 3z37** – make and use maps of urban and rural communities containing the necessary map elements of title, scale, symbols and legend, and cardinal directions;
- 3z38** – consult map legends when looking for selected features (e.g., H – hospital);
- 3z39** – recognize a range of features that may be represented by different colours on maps (e.g., pink to represent residential areas, brown to represent relief features);
- 3z40** – use familiar units of scale (e.g., centimetre, metre, kilometre) to measure distance on maps of urban and rural communities.

Application

- 3z41** – describe ways in which they and their families use the natural environment (e.g., playing in the park, growing food, drawing on nature for water and energy);
- 3z42** – compare the characteristics of their community to those of a different community (e.g., with respect to population density, services, recreation, modes of travel to isolated northern and First Nation communities);
- 3z43** – describe ways in which people interact with other communities (e.g., urban dwellers may travel to rural areas for recreational purposes; rural dwellers may make use of urban services such as hospitals).

Healthy Living

Overall Expectations

- 3p1** • describe the relationship among healthy eating practices, healthy active living, and healthy bodies;
- 3p2** • outline characteristics in the development and growth of humans from birth to childhood;
- 3p3** • list safety procedures and practices in the home, school, and community;
- 3p4** • describe what a drug is, list several examples (e.g., nicotine, caffeine, alcohol), and describe the effects of these substances on the body.

Healthy Eating

- 3p5** – identify foods from different cultures and classify them by food groups;
- 3p6** – describe the benefits of healthy food choices, physical activity, and healthy bodies;
- 3p7** – describe a variety of ways to prevent tooth decay (e.g., brushing, making appropriate food choices, rinsing the mouth);

Growth and Development

- 3p8** – outline the basic human and animal reproductive processes (e.g., the union of egg and sperm);
- 3p9** describe basic changes in growth and development from birth to childhood (e.g., changes to teeth, hair, feet, and height);

Personal Safety / Injury Prevention

- 3p10** – explain relevant safety procedures (e.g., fire drills, railway-crossing and crosswalk procedures);
- 3p11** – use a problem-solving process to identify ways of obtaining support for personal safety in the home, school, and community;
- 3p12** – identify examples of real and fictional violence (e.g., schoolyard fights, cartoons, movies);

Substance Use / Abuse

- 3p13** – define the term drug and identify a variety of legal and illegal drugs;
- 3p14** – identify nicotine (in cigarettes), caffeine (in coffee and colas), and alcohol as drugs;
- 3p15** – use decision-making skills to make healthy choices about drug use, and recognize the effects of various substances (e.g., nicotine, caffeine, alcohol) on the body.

Fundamental Movement Skills

Overall Expectations

- 3p16** • perform the basic movement skills required to participate in physical activities: locomotion/travelling (e.g., dodging, chasing), manipulation (e.g., striking, hitting), and stability (e.g., balancing on equipment, performing rolls);
- 3p17** • demonstrate the principles of movement (e.g., in various body shapes; using sudden, sustained, fast, or slow movements) using locomotion/travelling, manipulation, and stability skills.

Locomotion / Travelling Skills

- 3p18** – combine various locomotion/travelling movements with changes in direction and level, both with and without equipment (e.g., selecting two ways to travel on a bench while performing a change in direction and level);
- 3p19** – travel in various ways, and dodge stationary objects or opponents;

Manipulation Skills

- 3p20** – throw a ball overhead using two hands, while stationary, to a large target or a stationary partner;
- 3p21** – catch, while stationary, objects of various sizes and shapes using two hands both above and below the waist (e.g., catch a nerf ball);

- 3p22** – hit a slowly moving object (e.g., a ball or a balloon) using various parts of the body, directing it to a partner or a large target;

Stability Skills

- 3p23** – jump for distance or height over low objects;
- 3p24** – balance in different positions, using different body parts and levels (e.g., on and off gymnastics equipment, responding to stimuli in creative dance);
- 3p25** – move their bodies in various ways (e.g., over, under, through, and around equipment).

Active Participation

Overall Expectations

- 3p26** • participate on a regular basis in physical activities that maintain or improve physical fitness (e.g., skipping to music);
- 3p27** • recognize the personal benefits of being physically active;
- 3p28** • 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);
- 3p29** • follow safety procedures related to physical activity, equipment, and facilities.

Physical Activity

- 3p30** – participate vigorously in all aspects of the program (e.g., tag games, outdoor pursuits);
- 3p31** – demonstrate an awareness of the importance of being physically active in their leisure time;
- 3p32** – describe the health benefits of participating in regular physical activity (e.g., developing a strong heart and lungs);

Physical Fitness

- 3p33** – participate in moderate to vigorous physical activity (e.g., power walking) for a minimum of twenty minutes each day, including appropriate warm-up and cool-down procedures;
- 3p34** – identify the new capabilities (skills) that result from improved physical fitness (e.g., being able to run farther, requiring shorter rest periods);
- 3p35** – assess their degree of exertion in physical activities (e.g., by taking a “talk test”);

Living Skills

- 3p36** – adopt an action plan based on an individual or group goal related to physical activity (e.g., power walking for one kilometre three times a week);
- 3p37** – demonstrate respect for the abilities and feelings of others (e.g., accepting everyone into the group);
- 3p38** – follow the rules of fair play in games and activities (e.g., giving everyone a chance to play);
- 3p39** communicate positively to help and encourage others.

Music

Overall Expectations

- 3a1** • demonstrate an understanding of the basic elements of music specified for this grade (see below) through listening to, performing, and creating music;
- 3a2** • create and perform music, using a variety of sound sources;
- 3a3** • use correctly the vocabulary and musical terminology associated with the specific expectations for this grade;
- 3a4** • identify and perform music from various cultures and historical periods;
- 3a5** • communicate their response to music in ways appropriate for this grade (e.g., through visual arts, drama, creative movement, language).

Knowledge of Elements

- 3a6** – demonstrate understanding of the difference between the terms beat and rhythm (e.g., indicate the beat in a piece of music while others perform the rhythmic patterns);
- 3a7** – identify the beat, rhythm, melodic contour (or shape), dynamics, and tempo in familiar pieces of music;
- 3a8** – recognize that sounds and silences of different durations may be represented by symbols;
- 3a9** – identify the instruments within the percussion family of orchestral instruments (e.g., drums, wood blocks, piano).

Creative Work

- 3a10** – sing music from a variety of cultures and historical periods;
- 3a11** – substitute different words in familiar songs or create new verses, using their knowledge of rhythm to ensure that the new text fits with the melody;
- 3a12** – create melodic contour “maps” that indicate the direction of pitches (higher, lower) in familiar songs (e.g., “Twinkle, Twinkle Little Star”);
- 3a13** – indicate, with appropriate arm movements, the dynamics heard in familiar music (e.g., big movements for loud passages, small movements for soft);
- 3a14** – sing expressively, showing awareness that changes in volume or speed can help to convey the meaning of the text;
- 3a15** – create or arrange music to accompany a reading or dramatization, using appropriate rhythm instruments, body percussion, or “found” instruments;
- 3a16** – create and perform musical compositions in which they apply their knowledge of the elements of music and patterns of sounds, and use the voice, instruments, or “found” materials.

Critical Thinking

- 3a17** – express their response to music from a variety of cultures and historical periods (e.g., “Chants Berbères” by Taos Amrouche);
- 3a18** – communicate their thoughts and feelings about the music they hear, using language and a variety of art forms and media (e.g., storytelling, software program for drawing, creative movement);
- 3a19** – identify the feelings that are evoked by a particular piece of music (e.g., Peter and the Wolf by Sergei Prokofiev);
- 3a20** – explain, using appropriate musical terminology, their preference for specific songs or pieces of music;
- 3a21** – identify and explain the effects of different musical choices (e.g., the effects of choosing specific instruments).

Visual Arts

Overall Expectations

- 3a22** • produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes and to familiar audiences;

- 3a23** • identify the elements of design (colour, line, shape, form, space, texture), and use them in ways appropriate for this grade when producing and responding to works of art;
- 3a24** • describe how the ideas in a variety of art works relate to their own knowledge and experience and to other works they have studied, and how the artists have used at least one of the elements of design;
- 3a25** • use correctly vocabulary and art terminology associated with the specific expectations for this grade.

Knowledge of Elements

- 3a26** – recognize and name the warm (red, orange, yellow) and cool (purple, green, blue) colours, and describe their emotional impact (e.g., a warm colour scheme may make people feel warmer);
- 3a27** – identify characteristics of a variety of lines (e.g., thick, thin, broken, dotted);
- 3a28** – label the foreground, middle ground, and background, and identify objects in each of these areas of a work;
- 3a29** – identify symmetrical and asymmetrical shapes in both the human-made environment and the natural world;
- 3a30** – describe textures that are real in art works (e.g., the smooth surface of a piece of pottery) and illusory (e.g., the rough texture of bark in a two-dimensional painting);
- 3a31** – identify elements of design in a variety of natural and human-made objects (e.g., the form of a tree is asymmetrical and its leaves and flowers may be symmetrical);
- 3a32** – use art tools, materials, and techniques correctly to create different effects (e.g., paint with a sponge to create an open, airy feeling in a work; apply paint thickly with a brush to suggest heaviness).

Creative Work

- 3a33** – solve artistic problems in their art works, using at least three of the elements of design specified for this grade (e.g., describe why they placed objects in the foreground, middle ground, or background);
- 3a34** – produce two- and three-dimensional works of art (i.e., works involving media and techniques used in drawing, painting, sculpting, printmaking) that communicate their thoughts and feelings about specific topics or themes (e.g., produce a mural in a group interpreting a Native legend through colour, shape, and line);
- 3a35** – identify and explain the specific choices they made in planning, producing, and displaying their own art work (e.g., the choices of subject matter, colours, location for display);
- 3a36** – identify strengths and areas for improvement in their own and others' art work (e.g., the need to have better control in using paints).

Critical Thinking

- 3a37** – identify the similarities and differences in content between two or more works on a related theme (e.g., describe the artists' choices of subject matter in landscapes like *The Tangled Garden* by J. E. H. MacDonald and *Lake George in the Woods* by Georgia O'Keeffe);
- 3a38** – explain how the artist has used the elements of design to communicate feelings and convey ideas (e.g., show that the artist has placed certain objects in the foreground of a picture to convey the idea that they are important);
- 3a39** – state their preference for a specific work and defend their choice with reference to both their own interests and experience and to the artist's use of one or more of the elements of design (e.g., select a painting of skaters because they like skating and because they like the way the artist has used colours in the picture to create contrast and convey emotions).

Drama & Dance

Overall Expectations

- 3a40** • describe basic elements of drama and dance (e.g., suspense, pattern, energy);
- 3a41** • interpret and communicate the meaning of stories, poems, plays, and other material drawn from a range of sources and cultures, using basic drama and dance techniques (e.g., writing in role);
- 3a42** • create short dance pieces, using techniques learned in this grade;
- 3a43** • compare their own work with the work of others in drama and dance through discussion, writing, movement, and visual art work;
- 3a44** • solve problems presented in different kinds of dramatic situations through role playing and movement;
- 3a45** • use available technology appropriately to enhance their work in drama and dance.

Knowledge of Elements

- 3a46** – demonstrate an understanding of a character’s point of view through writing and speaking in role, and through using body movement in role (e.g., write diary entries and plant grain as a pioneer in Upper Canada);
- 3a47** – describe their own and others’ work in drama and dance, using appropriate vocabulary (e.g., character, suspense, rhythm);
- 3a48** – explain the importance of symbols used in specific stories, poems, and dances;
- 3a49** – demonstrate the ability to concentrate while in role in drama and dance (e.g., during an improvisation; while performing a dance);
- 3a50** – recognize and choose appropriate elements of movement for dramatizing their responses to different stimuli or ideas (e.g., real-life situations, the scientific concept of magnetic force);
- 3a51** – identify technological means of creating different effects (e.g., the use of recorded music or lighting to heighten suspense);
- 3a52** – describe the kinds of energy involved in a sequence of movements (e.g., energy related to speed or force);
- 3a53** – distinguish between a variety of dance forms, using specific criteria (e.g., steps, music, costumes).

Creative Work

- 3a54** – defend a point of view through speaking and writing in role (e.g., as townsfolk, plead with the mayor to save their town);
- 3a55** – create works of drama and dance, using appropriate elements (e.g., rhythm, form);
- 3a56** – communicate, through movement, their thoughts and feelings about topics studied in other subject areas (e.g., create a movement sequence to express their fear of an environmental event such as a storm);
- 3a57** – write and perform chants.

Critical Thinking

- 3a58** – identify effective uses of drama and dance elements in performances (e.g., form, space, pattern, energy) and compare their own responses with those of their peers;
- 3a59** – identify the themes and subjects found in drama and dance works, and make links between these and their own experiences;
- 3a60** – clarify the meaning of complex or ambiguous dramatic situations (e.g., by posing questions in and out of role to characters in a drama);
- 3a61** – solve artistic problems in drama and dance in cooperative work groups (e.g., discuss the effect of combining different voices in choral reading; discuss the effects of using one dancer or several to convey a message);

- 3a62** – explain how their understanding of work in dance and drama has been increased through research (e.g., through the use of reference books and the Internet, it is possible to find information about the rainforest to make an imaginary journey there more believable).