**English Language Arts** **4**

**General Curriculum Outcomes**

1. Students will speak and listen to explore, clarify, extend, and reflect on their thoughts, ideas, feelings, and experiences.

2. Students will be able to communicate information and ideas effectively and clearly, and to respond personally and critically.

3. Students will be able to interact with sensitivity and respect, considering the situation, audience, and purpose.

4. Students will be expected to select, read, and view with understanding a range of literature, information, media, and visual texts.

5. Students will be expected to interpret, select, and combine information using a variety of strategies, resources, and technologies.

6. Students will be expected to respond personally to a range of texts.

7. Students will be expected to respond critically to a range of texts, applying their knowledge of

language, form, and genre.

8. Students will be expected to use writing and other forms of representation to explore, clarify, and reflect on their thoughts, feelings, experiences, and learnings; and to use their imaginations.

9. Students will be expected to create texts collaboratively and independently, using a variety of forms for a range of audiences and purposes.

10. Students will be expected to use a range of strategies to develop effective writing and media

products to enhance their clarity, precision, and effectiveness.

**Specific Curriculum Outcomes**

Students will be expected to

1.1 explore and discuss their thoughts, ideas, and experiences and consider those of their peers

1.2 ask and respond to questions to clarify information and explore solutions to problems (e.g., using an interview format)

1.3 explain personal opinions and respond to the questions and opinions of others

1.4 listen critically to others’ ideas or opinions expressed

2.1 contribute to conversations, small-group and whole-group discussion, showing an awareness of when to speak and when to listen

2.2 use word choice, tone of voice, facial expressions, and gestures appropriate to the speaking occasion

2.3 give and follow instructions and respond to questions and directions

2.4 engage in and respond to oral presentations (e.g., retell a story, sing a song)

3.1 show basic courtesies of conversation in group interactions

3.2 identify examples of prejudice and stereotyping in oral language, and use language that shows respect for all people

3.3 show an awareness of the kinds of language appropriate to different situations and audiences

4.1 select, with growing independence, texts appropriate to their interests and learning needs

 LEARNING OUTCOMES FRAMEWORK: GRADES PRIMARY–6 129GRADE 4 ENGLISH LANGUAGE ARTS

 4.2 read widely and experience a variety of children’s literature with an emphasis in genre and authors

4.3 use pictures and illustrations, word structures, and text features (e.g., table of contents, headings and subheadings, glossaries, structures of narrative and expository texts, key ideas, and margin notes) to locate topics and obtain or verify understandings of information

4.4 use and integrate the pragmatic, semantic, syntactic, and graphophonic cueing systems (including context clues; word order; suffixes, compound words, contractions, and singular and plural words) and a variety of strategies to construct meaning

4.5 describe their own processes and strategies in reading and viewing

5.1 answer, with assistance, their own and others’ questions by seeking information from a variety of texts

 determine their own and community (class) needs for information

 recognize the purpose of classification systems and basic reference materials

 use a range of reference texts and a database or an electronic search to facilitate the selection

process

 reflect on the process of generating and responding to their own and others’ questions

6.1 describe, share, and discuss their personal reactions to texts

6.2 give reasons for their opinions about texts and types of texts and the work of authors and

illustrators

7.1 use their background knowledge to question information presented in print and visual texts

7.2 identify conventions and characteristics of different types of print and media texts that help them

understand what they read and view

7.3 respond critically to texts by

 asking questions and formulating understandings

 discussing texts from the perspective of their own experiences

 identifying instances where language is being used, not only to entertain, but to manipulate,

persuade, or control them

 identifying instances of prejudice and stereotyping

8.1 use

 formulate questions and organize ideas

 generate topics of personal interest and importance

 discover and express personal attitudes, feelings, and opinions

 compare their own thoughts and beliefs to those of others

 describe feelings, reactions, values, and attitudes

 record experiences

 formulate goals for learning

 practise strategies for monitoring their own learning

8.2 experiment with different ways of making their own notes (e.g., webbing, jot notes, matrix)

8.3 experiment with language, appropriate to purpose, audience, and form, that enhances meaning and demonstrates imagination in writing and other ways of representing

9.1 create written and media texts, collaboratively and independently, in different modes (expressive, transactional, and poetic) and in a variety of forms

 recognize that particular forms require the use of specific features, structures, and patterns

9.2 demonstrate an awareness of purpose and audiencestrategies in writing and other ways of representing to

 9.3 invite responses to early drafts of their writing/media productions  use audience reaction to help shape subsequent drafts

10.1 develop a range of prewriting, drafting, revising, editing, proofreading, and presentation strategies

10.2 demonstrate an understanding of many conventions of written language in final products

 correctly spell many familiar and commonly used words

 demonstrate an increasing understanding of punctuation, capitalization, and paragraphing  demonstrate a growing awareness of appropriate syntax

 use references while editing (e.g., dictionaries, classroom charts, electronic spell checkers,

checklists)

10.3 use technology with increasing proficiency in writing and other forms of representing

10.4 demonstrate a commitment to shaping pieces of writing and other representations through stages of development

10.5 select, organize, and combine relevant information from two or more sources to construct and communicate meaning

 **Français de base 4e année**

Veuillez noter que tous les résultats d’apprentissage spécifiques introduits en 4e année seront développés en 5e et 6e années.

**RAG 1 Communication :** L’élève devrait être capable de communiquer en français de façon efficace et devrait être capable d’interagir de façon appropriée dans une variété de situations reliées à ses besoins

et à ses intérêts.

suivre et donner des directives

se présenter, saluer

demander, donner des renseignements

exprimer et justifier ses désirs et ses préférences

identifier et décrire des objets, des animaux, des gens, des événements et des endroits qui font partie de son environnement

participer à des conversations, des jeux, des remue-méninges, des sondages, des saynètes inviter

reconnaître des caractéristiques des différents types de textes écrits : *expressifs, informatifs, incitatifs, poétiques, ludiques*

lire pour trouver de l’information spécifique des journaux, des revues, des messages, des règles, des consignes, des livrets, des petites histoires, des chansons, des bandes dessinées, des ressources électroniques

réagir à l’aide de chants, de mimes, de dessins, d’art dramatique

composer des cartes de souhaits, des lettres, des descriptions simples, des reportages, des listes, des slogans, des légendes pour des illustrations et des cartes, des comptines, des chansons et des chants, des bandes dessinées, des mots croisés, des affiches, du courrier électronique

réviser et corriger son texte selon une liste de vérification/un modèle

**RAG 2 Culture :** L’élève devrait être capable de démontrer une appréciation des cultures francophones tout en les comparant à sa propre culture et devrait être capable de démontrer une compréhension des liens entre la culture, la langue et l’identité dans le contexte multiculturel du Canada.

4.2.1 reconnaître et décrire à l’oral et à l’écrit le fait acadien sur le plan local et provincial : *par exemple, les noms de la famille, des rues, des restaurants, des écoles et des lieux*

4.2.2 reconnaître et décrire à l’oral et à l’écrit certains aspects de la culture acadienne et des francophones dans les autres provinces, par exemple, *la nourriture, les fêtes*

4.2.3 comparer sa culture et celles des acadiens

4.2.4 écouter de la musique francophone populaire auprès des jeunes

4.2.5 nommer quelques musiciens acadiens et québécois, des athlètes, des politiciens, etc.

4.2.6 regarder/écouter les médias en français, y incluant l’Internet

4.2.7 identifier quelques personnes célèbres représentant la mosaïque canadienne

4.2.8 chanter « Ô Canada »

4.2.9 chanter des chansons folkloriques traditionnelles

4.2.10 utiliser des comptines, des rimes associés aux jeux

4.2.11 se rendre compte que les étiquettes sont écrites dans les deux langues officielles

4.2.12 reconnaître que la publicité canadienne est dans les deux langues officielles

**RAG 3 Formation langagière générale :** L’élève devrait être capable de choisir et mettre en pratique des stratégies pour faciliter ses communications en français et faciliter son apprentissage.

4.3.1 anticiper le sens d’un texte oral ou écrit

4.3.2 créer des liens entre un texte oral ou écrit et ses connaissances antérieures

4.3.3 utiliser des images, des représentations graphiques, des objets, des gestes et des actions pour communiquer

4.3.4 repérer des mots clés dans un texte

4.3.5 demander de répéter et/ou de ralentir

4.3.6 reconnaître les mots apparentés

4.3.7 reconnaître les mots amis

4.3.8 deviner selon le contexte

4.3.9 prendre des risques et accepter l’erreur

4.3.10 pratiquer

4.3.11 écouter attentivement et sélectivement

4.3.12 démontrer une tolérance pour l’ambiguïté

4.3.13 se servir des modèles de production

4.3.14 se servir d’une variété de ressources et de technologies

4.3.15 faire un retour réflexif sur son apprentissage

4.3.16 s’auto-évaluer

4.3.17 interagir et coopérer avec ses pairs : par exemple, *prendre son tour, accepter des suggestions apportées par les autres, partager l’information et l’équipement*

**RAG 4 Langue :** L’élève devrait être capable de reconnaître et d’utiliser en contexte des éléments du code linguistique, pour faciliter ses communications en français.

4.4.1 se présenter, saluer en se servant des phrases simples au présent

4.4.2 demander, donner des renseignements en se servant des phrases simples au présent; des

interrogatives, des adjectifs

4.4.3 suivre et donner des directives en se servant de l’impératif, de l’infinitif

4.4.4 composer des textes différents en se servant des phrases simples au présent; l’impératif; la

négation, l’interrogation

Veuillez vous référer aux tableaux des pages 13 à 16 du guide pédagogique *Français de base à l’élémentaire – 1998* pour un aperçu global des résultats d’apprentissage spécifiques pour le français de base 4e à 6e année.

**Health Education 4**

**General Curriculum Outcomes**

Students will be expected to

A. demonstrate positive self-identity that effectively enables them to manage their health, relationships, and interactions with the world

B. think critically and make informed decisions to enhance health of self, those around oneself, and within a global context

C. demonstrate effective communication and interpersonal skills that facilitate positive relationships between themselves and the world

**Specific Curriculum Outcomes**

Students will be expected to

Healthy Self

1.1 describe the physical and emotional changes that take place during puberty

1.2 differentiate between gender roles and gender identity

1.3 demonstrate an awareness that values are an integral part in making healthy decisions and

fostering healthy behaviour

1.4 differentiate between anxious feelings that we all have and signs of anxiety that are more serious, and identify people who can help

1.5 identify personal factors that motivate them to participate in physical activity and quiet leisure activities

Healthy Relationships

2.1 identify components of a healthy relationship

2.2 demonstrate an awareness of the link between positive self-identity and making healthy decisions that affect relationships and care of self

Healthy Community

3.1 demonstrate an awareness of the various forms of gambling, and consider risks associated with gambling and gaming online

3.2 analyze how marketing impacts health

3.3 design active transportation routes through a creative process and promote ways to safely engage

in walking or wheeling in their communities

3.4 explore the relationship between sustainable development and health

3.5 describe ways they can prevent injuries from falls

**Information and Communication Technology 4**

 **Digital Citizenship (DC)**

*Students act ethically and with critical understanding while using information and communication technology in the context of local and global communities.*

**DC1:** Students will be expected to understand and demonstrate behaviours that ensure their own and others’ health, safety, and privacy.

**DC2:** Students will be expected to follow best practices of active digital citizenship as they participate in and contribute to local, national, and global communities.

DC2.1.4: Students will be expected to use information and communication technology to address opportunities for the development of active local and global citizenship embedded within the grade 4 curriculum.

DC2.2.4: Students will be expected to follow, with teacher assistance, ethical and responsible online digital citizenship by

presenting information accurately

respecting personal privacy and safety

choosing appropriate language for the intended audience and purpose

**DC3:** Students will be expected to respond personally and with developing critical awareness to a range of print, media, and electronic resources.

DC3.1.4: Students will be expected to respond personally and independently, with developing critical awareness, to a range of print, media, and electronic resources selected for use at this grade level.

**DC4:** Students will be expected to consider the social and ethical issues involved in the use and digital distribution of information and the effects on individuals, communities, and cultures.

DC4.1.4: Students will be expected to interpret and apply, with teacher assistance, practices that comply with copyright guidelines to

interpret copyright information for resources to determine whether permission to copy, reuse, and change works is required

request and document receipt of required copyright permissions for intellectual property

cite intellectual property accurately using a recommended citation development engine

 **Productivity (P)**

*Students will use digital tools to construct knowledge, present learning, and develop innovative products and processes.*

**P1:** Students will be expected to use digital tools to plan, create, and publish their work, both individually and collaboratively.

P1.1.4: Students will be expected to use grade-appropriate digital tools to plan, organize, and represent their learning for various purposes and audiences, both individually and collaboratively.

**P2:** Students will be expected to use digital tools to develop ideas and original works in innovative ways. P2.1.4: Students will be expected to, with some teacher assistance, use digital tools to build on existing

knowledge, extend their understanding, and create new ideas, innovative products, or processes.

**Communication (COM)**

*Through the use of ICT tools and environments, students create, consider, and communicate their ideas for various purposes and audiences.*

**C1:** Students will be expected to understand and use respectful and clear communication conventions to interact, collaborate, create, and learn with others for various purposes and audiences.

C1.1.4: Students will be expected to follow, with teacher assistance, conventions and models of respectful, clear communication to interact, collaborate, create, and learn with others.

C1.2.4: Students will be expected to communicate, with teacher assistance, information and ideas effectively to multiple audiences using a variety of media and formats.

**Research, Innovation, Problem Solving, and Decision Making (RIPSD)**

*Students will be expected to use critical-thinking skills with appropriate digital tools and resources to plan and conduct research, manage products, solve problems, and make informed decisions.*

**RIPSD1:** Students will be expected to locate and select relevant information using the appropriate organizational features and search strategies applicable to various media.

RIPSD1.1.4: Students will be expected to use and navigate, with some assistance, organizational and text structure features of traditional and digital media for grade 4 to locate specific information to meet their learning needs and interests.

RIPSD1.2.4: Students will be expected to locate and select, with teacher assistance, learning resources in a range of media for grade 4 curriculum use by

generating and selecting search criteria

 using advanced features of search engines

assessing search results for relevance, reliability, and validity

**RIPSD2:** Students will be expected to use measuring devices accurately, record data to create electronic charts, and analyze their data to make predictions, define relationships, and support decision making.

RIPSD2.1.4: Students will be expected to use curriculum-specific data collection strategies, probeware, data collection/recording tools, and digital media equipment for grade 4 inquiry-based learning.

**Technology Operations and Concepts (TOC)**

*Students demonstrate an understanding of technology concepts, systems, and operations.*

**TOC1:** Students will be expected to

safely use many forms of current technology for learning with growing competence

demonstrate conceptual understanding of how information and communication technology, digital tools, and authorized networks support their learning

use terminology related to information and communication technology

TOC1.1.4: Students will be expected to use, with some teacher assistance, the terminology, features, and functionality of information and communication technology, grade-appropriate digital tools, and authorized educational networks to achieve grade-level curriculum learning outcomes.

**Mathematics 4**

**General Curriculum Outcomes**

Students will be expected to

demonstrate number sense

use patterns to describe the world and solve problems

represent algebraic expressions in multiple ways

use direct and indirect measure to solve problems

describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them

describe and analyze position and motion of objects and shapes

collect, display, and analyze data to solve problems

use experimental or theoretical probabilities to represent and solve problems involving uncertainty

**Specific Curriculum Outcomes**

Performance indicators are statements that identify specific expectations of the depth, breadth, and expectations for the outcome. Teachers use these statements to determine whether students have achieved the corresponding specific curriculum outcome.

**Process Standards Key**

Number

**Outcome N01:** Students will be expected to represent and partition whole numbers to 10 000. [C, CN, V]

**Performance Indicators:**

N01.01 read a given four-digit numeral without using the word “and”

N01.02 record numerals for numbers expressed orally, concretely, pictorially, and/or symbolically as

expressions, using proper spacing without commas

N01.03 write a given numeral, 0 to 10 000, in words

N01.04 represent a given numeral using a place-value chart or diagrams

N01.05 express a given numeral in expanded notation (e.g., 4321 = 4000 + 300 + 20 + 1)

N01.06 write the numeral represented by a given expanded notation

N01.07 explain the meaning of each digit in a given four-digit numeral

N01.08 represent a given number in a variety of ways and explain how they are equivalent

N01.09 read a given number word, 0 to 10 000

N01.10 represent a given number using expressions

 [C] Communication [PS] Problem Solving [CN] Connections [ME] Mental Mathematics and Estimation [T] Technology [V] Visualization [R] Reasoning

 142

LEARNING OUTCOMES FRAMEWORK: GRADES PRIMARY–6

MATHEMATICS GRADE 4

 **Outcome N02:** Students will be expected to compare and order numbers to 10 000. [C, CN, V]

**Performance Indicators:**

N02.01 order a given set of numbers in ascending or descending order, and explain the order by making references to place value

N02.02 create and order three different four-digit numerals

N02.03 identify the missing numbers in an ordered sequence and on a number line

N02.04 identify incorrectly placed numbers in an ordered sequence and on a number line

N02.05 place numbers in relative order on an open number line

N02.06 place numbers on a number line containing benchmark numbers for the purpose of

comparison.

N02.07 compare numbers based on a variety of methods

**Outcome N03:** Students will be expected to demonstrate an understanding of addition and subtraction of numbers with answers to 10 000 (limited to three- and four-digit numerals) by

using personal strategies for adding and subtracting

estimating sums and differences

solving problems involving addition and subtraction [C, CN, ME, PS, R]

**Performance Indicators:**

N03.01 represent concretely, pictorially, and symbolically the addition and subtraction of whole numbers, limited to three- and four-digit numerals

N03.02 determine the sum of two given numbers, limited to three- and four-digit numerals, using a personal strategy, and record the process symbolically

N03.03 determine the difference of two given numbers, limited to three- and four-digit numerals, using a personal strategy, and record the process symbolically

N03.04 describe a situation in which an estimate rather than an exact answer is sufficient

N03.05 estimate sums and differences using different strategies.

N03.06 create and solve problems that involve addition and subtraction of two or more numbers,

limited to three- and four-digit numerals

N03.07 explain mental mathematics strategies that could be used to determine a sum or difference

N03.08 determine a sum or difference of one-, two-, and three-digit numerals efficiently, using mental

mathematics strategies

**Outcome N04:** Students will be expected to apply and explain the properties of 0 and 1 for multiplication and the property of 1 for division. [C, CN, R]

**Performance Indicators:**

N04.01 determine the answer to a given question involving the multiplication of a number by 1, and explain the answer using the property of 1 in multiplication

N04.02 determine the answer to a given question involving the multiplication of a number by 0, and explain the answer using the property of 0 in multiplication

N04.03 determine the answer to a given question involving the division of a number by 1, and explain the answer using the property of 1 in division

**Outcome N05:** Students will be expected to describe and apply mental mathematics strategies, to recall basic multiplication facts to 9 × 9, and to determine related division facts. [C, CN, ME, R]

**Performance Indicators:**

N05.01 describe the mental mathematics strategy used to determine basic multiplication or division facts

N05.02 use and describe a personal strategy for determining the multiplication facts

N05.03 use and describe a personal strategy for determining the division facts

N05.04 quickly recall basic multiplication facts up to 9 × 9

**Outcome N06:** Students will be expected to demonstrate an understanding of multiplication (one-, two-, or three-digit by one-digit numerals) to solve problems by

using personal strategies for multiplication, with and without concrete materials

using arrays to represent multiplication

connecting concrete representations to symbolic representations estimating products

applying the distributive property

[C, CN, ME, PS, R, V]

**Performance Indicators:**

N06.01 model a given multiplication problem, using the distributive property (e.g., 8 × 365 = (8 × 300) + (8 × 60) + (8 × 5))

N06.02 model the multiplication of two given numbers, limited to one-, two-, or three-digit by one- digit numerals, using concrete or visual representations, and record the process symbolically

N06.03 create and solve multiplication story problems, limited to one-, two-, or three-digit by one- digit numerals, and record the process symbolically

N06.04 estimate a product using a personal strategy (e.g., 2 × 243 is close to or a little more than 2 × 200, or close to or a little less than 2 × 250)

N06.05 model and solve a given multiplication problem using an array, and record the process

N06.06 determine the product of two given numbers using a personal strategy, and record the

process symbolically

**Outcome N07:** Students will be expected to demonstrate an understanding of division (one-digit divisor and up to two-digit dividend) to solve problems by

using personal strategies for dividing, with and without concrete materials

estimating quotients

relating division to multiplication [C, CN, ME, PS, R, V]

**Performance Indicators:**

N07.01 model the division of two given numbers without a remainder, limited to a one-digit divisor and up to a two-digit dividend, using concrete or visual representations, and record the process pictorially and symbolically

N07.02 model the division of two given numbers with a remainder, limited to a one-digit divisor and up to a two-digit dividend, using concrete or visual representations, and record the process pictorially and symbolically (It is not intended that remainders be expressed as decimals or fractions.)

N07.03 solve a given division problem, using a personal strategy, and record the process symbolically

N07.04 create and solve division word problems involving a one- or two-digit dividend, and record the

process pictorially and symbolically

N07.05 estimate a quotient using a personal strategy (e.g., 86 ÷ 4 is close to 80 ÷ 4 or close to 80 ÷ 5)

N07.06 solve a given division problem by relating division to multiplication (e.g., for 80 ÷ 4, we know that 4 × 20 = 80, so 80 ÷ 4 = 20)

**Outcome N08:** Students will be expected to demonstrate an understanding of fractions less than or equal to 1 by using concrete, pictorial, and symbolic representations to

name and record fractions for the parts of one whole or a set

compare and order fractions

model and explain that for different wholes, two identical fractions may not represent the same quantity

provide examples of where fractions are used [C, CN, PS, R, V]

**Performance Indicators:**

N08.01 represent a given fraction of one whole object, region, or a set using concrete materials

N08.02 identify a fraction from its given concrete representation

N08.03 name and record the shaded and non-shaded parts of a given whole object, region, or set

N08.04 represent a given fraction pictorially by shading parts of a given whole object, region, or set

N08.05 explain how denominators can be used to compare two given unit fractions with a numerator

of 1

N08.06 order a given set of fractions that have the same numerator, and explain the ordering

N08.07 order a given set of fractions that have the same denominator, and explain the ordering

N08.08 identify which of the benchmarks 0, 12 , or 1 is closer to a given fraction

N08.09 name fractions between two given benchmarks on a number line

N08.10 order a given set of fractions by placing them on a number line with given benchmarks

N08.11 provide examples of instances when two identical fractions may not represent the same

quantity

N08.12 provide, from everyday contexts, an example of a fraction that represents part of a set and an

example of a fraction that represents part of one whole

**Outcome N09:** Students will be expected to describe and represent decimals (tenths and hundredths) concretely, pictorially, and symbolically. [C, CN, R, V]

**Performance Indicators:**

N09.01 write the decimal for a given concrete or pictorial representation of part of a set, part of a region, or part of a unit of measure

N09.02 represent a given decimal using concrete materials or a pictorial representation

N09.03 explain the meaning of each digit in a given decimal

N09.04 represent a given decimal using money values (dimes and pennies)

N09.05 record a given money value using decimals

N09.06 provide examples of everyday contexts in which tenths and hundredths are used

N09.07 model, using manipulatives or pictures, that a given tenth can be expressed as a hundredth

(e.g., 0.9 is equivalent to 0.90, or 9 dimes is equivalent to 90 pennies)

N09.08 read decimal numbers correctly

 LEARNING OUTCOMES FRAMEWORK: GRADES PRIMARY–6 145

GRADE 4 MATHEMATICS

 **Outcome N10:** Students will be expected to relate decimals to fractions and fractions to decimals (to hundredths). [C, CN, R, V]

**Performance Indicators:**

N10.01 express, orally and symbolically, a given fraction with a denominator of 10 or 100 as a decimal

N10.02 read decimals as fractions (e.g., 0.5 is zero and five tenths)

N10.03 express, orally and symbolically, a given decimal in fraction form

N10.04 express a given pictorial or concrete representation as a fraction or decimal

(e.g., 15 shaded squares on a hundredth grid can be expressed as 0.15 or 15 ) 100

N10.05 express, orally and symbolically, the decimal equivalent for a given fraction (e.g., 50 can be expressed as 0.50)

100

**Outcome N11:** Students will be expected to demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by

estimating sums and differences

using mental mathematics strategies to solve problems

using personal strategies to determine sums and differences [C, ME, PS, R, V]

**Performance Indicators:**

N11.01 predict sums and differences of decimals, using estimation strategies

N11.02 solve problems, including money problems, that involve addition and subtraction of decimals

(limited to hundredths), using personal strategies

N11.03 ask students to determine which problems do not require an exact solution

N11.04 determine the approximate solution of a given problem not requiring an exact answer

N11.05 count back change for a given purchase

N11.06 determine an exact solution using mental computation strategies

Patterns and Relations

**Outcome PR01:** Students will be expected to identify and describe patterns found in tables and charts, including a multiplication chart. [C, CN, PS, V]

**Performance Indicators:**

PR01.01 identify and describe a variety of patterns in a multiplication chart

PR01.02 determine the missing element(s) in a given table or chart

PR01.03 identify the error(s) in a given table or chart

PR01.04 describe the pattern found in a given table or chart

**Outcome PR02:** Students will be expected to translate among different representations of a pattern (a table, a chart, or concrete materials). [C, CN, V]

**Performance Indicators:**

PR02.01 create a table or chart from a given concrete representation of a pattern

PR02.02 create a concrete representation of a given pattern displayed in a table or chart

PR02.03 translate between pictorial, contextual, and concrete representations of a pattern

 PR02.04 explain why the same relationship exists between the pattern in a table and its concrete representation

**Outcome PR03:** Students will be expected to represent, describe, and extend patterns and relationships, using charts and tables, to solve problems. [C, CN, PS, R, V]

**Performance Indicators:**

PR03.01 translate the information in a given problem into a table or chart

PR03.02 identify, describe, and extend the patterns in a table or chart to solve a given problem

**Outcome PR04:** Students will be expected to identify and explain mathematical relationships, using charts and diagrams, to solve problems. [CN, PS, R, V]

**Performance Indicators:**

PR04.01 complete a given Carroll diagram to solve a problem

PR04.02 determine where new elements belong is a given Carroll diagram

PR04.03 solve a given problem using a Carroll diagram.

PR04.04 identify a sorting rule for a given Venn diagram

PR04.05 describe the relationship shown in a given Venn diagram when the circles overlap, when one circle is contained in the other, and when the circles are separate

PR04.06 determine where new elements belong in a given Venn diagram

PR04.07 solve a given problem by using a chart or diagram to identify mathematical relationships

**Outcome PR05:** Students will be expected to express a given problem as an equation in which a symbol is used to represent an unknown number. [CN, PS, R]

**Performance Indicators:**

PR05.01 explain the purpose of the symbol in a given addition, subtraction, multiplication, or division equation with one unknown (e.g., 36 ÷ = 6)

PR05.02 express a given pictorial or concrete representation of an equation in symbolic form

PR05.03 identify the unknown in a problem; represent the problem with an equation; and solve the

problem concretely, pictorially, and/or symbolically

PR05.04 create a problem in context for a given equation with one unknown

**Outcome PR06:** Students will be expected to solve one-step equations involving a symbol to represent an unknown number. [C, CN, PS, R, V]

**Performance Indicators:**

PR06.01 represent and solve a given one-step equation concretely, pictorially, or symbolically

PR06.02 solve a given one-step equation using guess and test

PR06.03 describe, orally, the meaning of a given one-step equation with one unknown

PR06.04 solve a given equation when the unknown is on the left or right side of the equation

PR06.05 represent and solve a given addition or subtraction problem involving a “part-part-whole” or comparison context using a symbol to represent the unknown

PR06.06 represent and solve a given multiplication or division problem involving equal grouping or partitioning (equal sharing) using symbols to represent the unknown

PR06.07 solve equations using a symbol to represent the unknown

 LEARNING OUTCOMES FRAMEWORK: GRADES PRIMARY–6 147

Measurement

**Outcome M01:** Students will be expected to read and record time using digital and analog clocks, including 24-hour clocks. [C, CN, V]

**Performance Indicators:**

M01.01 state the number of hours in a day

M01.02 express the time orally and numerically from a 12-hour analog clock

M01.03 express the time orally and numerically from a 24-hour analog clock

M01.04 express the time orally and numerically from a 12-hour digital clock

M01.05 express time orally and numerically from a 24-hour digital clock

M01.06 describe time orally as “minutes to” or “minutes after” the hour

M01.07 explain the meaning of a.m. and p.m., and provide an example of an activity that occurs

during the a.m., and another that occurs during the p.m.

**Outcome M02:** Students will be expected to read and record calendar dates in a variety of formats. [C, V]

**Performance Indicators:**

M02.01 write dates in a variety of formats (e.g., yyyy/mm/dd, dd/mm/yyyy, March 21, 2014, dd/mm/yy)

M02.02 relate dates written in the format yyyy/mm/dd to dates on a calendar

M02.03 identify possible interpretations of a given date (e.g., 06/03/04)

**Outcome M03:** Students will be expected to demonstrate an understanding of area of regular and irregular 2-D shapes by

recognizing that area is measured in square units

selecting and justifying referents for the units square centimetre (cm2) or square metre (m2)

estimating area using referents for cm2 or m2

determining and recording area (cm2 or m2)

constructing different rectangles for a given area (cm2 or m2) in order to demonstrate that many

different rectangles may have the same area [C, CN, ME, PS, R, V]

**Performance Indicators:**

M03.01 describe area as the measure of surface recorded in square units

M03.02 identify and explain why the square is the most efficient unit for measuring area

M03.03 provide a referent for a square centimetre, and explain the choice

M03.04 provide a referent for a square metre, and explain the choice

M03.05 determine which standard square unit is represented by a given referent

M03.06 estimate the area of a given 2-D shape using personal referents

M03.07 determine the area of a regular 2-D shape, and explain the strategy

M03.08 determine the area of an irregular 2-D shape, and explain the strategy

M03.09 construct a rectangle for a given area

M03.10 demonstrate that many rectangles are possible for a given area by drawing at least two

different rectangles for the same given area

 148

Geometry

**Outcome G01:** Students will be expected to describe and construct rectangular and triangular prisms. [C, CN, R, V]

**Performance Indicators:**

G01.01 identify and name common attributes of rectangular prisms from given sets of rectangular prisms

G01.02 identify and name common attributes of triangular prisms from given sets of triangular prisms

G01.03 sort a given set of right rectangular and triangular prisms, using the shape of the base

G01.04 construct and describe a model of a rectangular and a triangular prism, using materials such as

pattern blocks or modelling clay

G01.05 construct rectangular prisms from their nets

G01.06 construct triangular prisms from their nets

G01.07 identify examples of rectangular and triangular prisms found in the environment

**Outcome G02:** Students will be expected to demonstrate an understanding of congruency, concretely and pictorially. [CN, R, V]

**Performance Indicators:**

G02.01 determine if two given 2-D shapes are congruent, and explain the strategy used

G02.02 create a shape that is congruent to a given 2-D shape, and explain why the two shapes are

congruent

G02.03 identify congruent 2-D shapes from a given set of shapes shown in different positions in space

**Outcome G03:** Students will be expected to demonstrate an understanding of line symmetry by identifying symmetrical 2-D shapes

creating symmetrical 2-D shapes

drawing one or more lines of symmetry in a 2-D shape

[C, CN, V]

**Performance Indicators:**

G03.01 identify the characteristics of given symmetrical and non-symmetrical 2-D shapes

G03.02 sort a given set of 2-D shapes as symmetrical and non-symmetrical

G03.03 complete a symmetrical 2-D shape, given one-half the shape and its line of symmetry, and explain the process

G03.04 identify lines of symmetry of a given set of 2-D shapes, and explain why each shape is

symmetrical

G03.05 determine whether or not a given 2-D shape is symmetrical by using an image reflector or by folding and superimposing

G03.06 create a symmetrical shape with and without manipulatives and explain the process

G03.07 provide examples of symmetrical shapes found in the environment, and identify the line(s) of symmetry

G03.08 sort a given set of 2-D shapes as those that have no lines of symmetry, one line of symmetry, or more than one line of symmetry

G03.09 explain connections between congruence and symmetry using 2-D shapes

 Statistics and Probability

**Outcome SP01:** Students will be expected to demonstrate an understanding of many-to-one correspondence. [C, R, T, V]

**Performance Indicators:**

SP01.01 compare graphs in which the same data has been displayed using one-to-one and many-to- one correspondences, and explain how they are the same and different

SP01.02 explain why many-to-one correspondence is sometimes used rather than one-to-one correspondence

SP01.03 find examples of graphs in print and electronic media, such as newspapers, magazines, and the Internet, in which many-to-one correspondence is used; and describe the correspondence used

**Outcome SP02:** Students will be expected to construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions. [C, PS, R, V]

**Performance Indicators:**

SP02.01 identify an interval and correspondence for displaying a given set of data in a graph, and justify the choice

SP02.02 create and label (with categories, title, and legend) a pictograph to display a given set of data, using many-to-one correspondence, and justify the choice of correspondence used

SP02.03 create and label (with axes and title) a bar graph to display a given set of data, using many-to-one correspondence, and justify the choice of interval used

SP02.04 answer a given question, using a given graph in which data is displayed using many-to-one correspondence

**Music 4**

**General Curriculum Outcomes**

Students will be expected to

1. explore, challenge, develop, and express ideas, using the skills, language, techniques, and processes of the arts

2. create and/or present, collaboratively and independently, expressive products in the arts for a range of audiences and purposes

3. demonstrate critical awareness of and value for the role of the arts in creating and reflecting culture

4. respect the contributions to the arts of individuals and cultural groups in local and global contexts, and value the arts as a record of human experience and expression

5. examine the relationship among the arts, societies, and environments

6. apply critical thinking and problem-solving strategies to reflect on and respond to their own and others’ expressive works

7. understand the role of technologies in creating and responding to expressive works

8. analyze the relationship between artistic intent and the expressive work

**Specific Curriculum Outcomes**

Students will be expected to

1.1.1 sing alone and with others, with emphasis on expressive singing, phrasing, range, and more complex textures including two- and three-part rounds and canons

1.2.1 identify ways that the elements of music are used to express thoughts, experiences, and feelings in their own and others’ work

1.2.2 demonstrate an awareness of rhythmic/melodic concepts, form, and texture through language, movement, and performance

1.3.1 sight-read simple melodies from traditional notation with emphasis on stepwise movement and dynamics

1.4.1 create and notate short musical works to express musical thoughts and ideas with an emphasis on question and answer phrases

2.1.1 improvise simple rhythmic variations and simple melodic embellishments on familiar melodies

2.2.1 use specific materials, techniques, and forms to create, make and present music

2.2.2 sing alone and with others, with emphasis on expressive singing, reading, phrasing, range and more complex textures

2.3.1 participate in large- and small-ensemble music making

3.1.1 demonstrate an awareness of places in their community where they can learn about and experience music, including music of other cultures describe their music-making experiences in their community

identify, describe, and compare instruments from a variety of cultural and historical contexts.

use their knowledge and experience to respect and value the musical contributions of cultural groups in their own community

explore the role music plays in the indigenous cultures of Canada

explore the work of various composers and musicians and their contribution to society, past and present

explore a range of ways that music may be used to reflect themes and ideas

explore and identify the relationship between work/working environment and music, past and present

identify connections between music and movement, including drama and dance identify problems and possible solutions in the music-making process

use musical criteria to evaluate performance of classroom repertoire, with emphasis on melody and harmony

use knowledge of music elements to describe the music they hear

demonstrate respect for others’ responses to music

recognize common orchestral and keyboard instruments by sight and sound experiment with available technologies while creating and making music explore the effects of changing technologies on common instruments investigate the source of ideas for the music they listen to and make explore their own musical work in light of what they intended

**Physical Education 4**

**General Curriculum Outcomes**

Students will be expected to

**A** demonstrate knowledge, skills, and attitudes necessary to be active for life

**B** demonstrate competencies of skill and movement concepts and strategies through participation

in diverse physical education pursuits

**C** participate in diverse physical activities that will foster personal, social, and emotional growth

and responsibility

**Specific Curriculum Outcomes**

Students will be expected to

Active for Life

A4.1 demonstrate an understanding of health-related physical fitness components and develop personal SMART goals for health-related physical fitness

A4.2 apply effective motivation concepts that demonstrates effort toward mastery during different types of physical activities, and explain ways to apply these concepts effectively to other areas of school life

A4.3 apply safety and risk-management practices during physical education classes and identify how these practices enhance physically active living at home, at school, and in the community, including active transportation

A4.4 perform warm-up and cool-down activities and explain the health benefits

Skill and Movement Concepts

B4.1 demonstrate competency in skill combinations and movement concepts within dance, educational gymnastics, games, and active pursuits

B4.2 demonstrate competency in skill combinations and movement concepts while applying offensive and defensive strategies

B4.3 demonstrate decision-making skills while applying skill combinations and movement concepts as adaptations are placed on settings, space, time, rules, and tasks

Life Skills

C4.1 apply effective coping strategies and peaceful conflict-resolution skills across learning experiences in physical education and explain ways to connect these to other areas of school life

C4.2 demonstrate proper care for built and natural environments

C4.3 describe their feelings having collaborated with others and explore other areas within school life where collaboration could be beneficial to them and others

C4.4 identify positive attributes of a group member during different types of physical activities, and explore other areas of life where they could use these attributes

 **Science 4**

**General Curriculum Outcomes**

STSE/Knowledge

1. Students will develop an understanding of the nature of science and technology, of the relationships between science and technology, and of the social and environmental contexts of science and technology. (STSE)

3. Students will construct knowledge and understandings of concepts in life science, physical science, and Earth and space science, and apply these understandings to interpret, integrate, and extend their knowledge. (Knowledge)

Skills

2. Students will develop the skills required for scientific and technological inquiry, for solving problems, for communicating scientific ideas and results, for working collaboratively, and for making informed decisions.

Attitudes

4. Students will be encouraged to develop attitudes that support the responsible acquisition and application of scientific and technological knowledge to the mutual benefit of self, society, and the environment.

**Specific Curriculum Outcomes**

Students will be expected to

Life Science: Habitats

**HABITATS AND POPULATIONS**

identify questions to investigate the types of plants and/or animals at a local habitat using the terms **habitat**, **population**, and **community** (104-6, 204-1)

examine and investigate, using various methods and questions, local habitats and their associated populations of plants and animals (204-6, 302-1)

identify their own and their families’ impact on habitats and describe how personal actions help conserve habitats (108-3, 108-6)

**COLLECTING SCIENTIFIC INFORMATION USING MODELS OF NATURAL HABITATS**

construct and/or maintain a model of a natural habitat and, through observations, suggest improvements to make it more habitable for organisms (205-5, 205-10, 206-6)

**BEHAVIOURAL AND STRUCTURAL FEATURES OF ANIMALS THAT ENABLE THEM TO SURVIVE IN THEIR HABITAT**

compare the external features, behavioural patterns, structural, and/or behavioural adaptations for an animal to survive a particular habitat, real or imagined (204-3, 300-1, 300-2, 302-2)

**STRUCTURAL FEATURES OF PLANTS THAT ENABLE THEM TO SURVIVE IN THEIR HABITAT**

describe how scientists’ knowledge of plant growth has led to agricultural and technological innovations and the impact on local and regional habitat issues (105-1, 106-4, 108-1)

**FOOD CHAINS**

classify organisms and draw diagrams to illustrate their role in a food chain (206-1, 302-3)

predict how the removal of a plant or animal population affects the rest of the community andrelate habitat loss to the endangerment or extinction of plants and animals (301-1, 301-2)

Physical Science: Light

**OPTICAL DEVICES**

describe properties of light that have led to the development of optical devices that enhance our ability to observe (106-1, 106-4)

compare and describe how light interacts with a variety of optical devices and construct an optical device that performs a specific function (107-1, 205-10, 303-8)

identify women and men in their community who have careers using optics (107-10)

**SOURCES OF LIGHT**

plan an investigation and communicate questions and ideas with others about light emitted from an object, its own or an external source (204-7, 207-1, 303-3)

**LIGHT RADIATES FROM A SOURCE**

observe, demonstrate, and make conclusions about how light travels and is dispersed from a variety of light sources (206-5, 303-2)

**OBJECTS THAT ABSORB, TRANSMIT, AND/OR REFLECT LIGHT**

investigate and predict how light interacts with a variety of objects (including changes in the location, shape, and relative size of a shadow) in order to determine whether the objects cast shadows, allow light to pass, and/or reflect light (303-4, 303-5)

classify objects as opaque, transparent, or translucent (206-1)

make observations and collect information about the reflective and refractive properties of various

materials of different shapes (205-5)

 **BENDING LIGHT**

demonstrate and describe how a variety of media can be used to change the direction of light (303-6)

**DISPERSION OF LIGHT**

demonstrate that white light can be separated into colours (dispersion) and follow a set of procedures to make and use a colour wheel (104-6, 205-3, 303-7)

Physical Science: Sound

**OBJECTS THAT MAKE SOUNDS**

identify objects by the sounds they make and describe examples of devices that enhance our abilities to hear and collect sound data (106-1, 107-1, 303-9)

**SOUND VIBRATIONS**

relate vibrations to sound production and compare how vibrations travel differently through a variety of materials (303-10, 303-11)

**PITCH, LOUDNESS, AND SOUND TECHNOLOGY**

demonstrate and describe how the pitch and loudness of sounds can be modified; design, construct, and evaluate a device that has the ability to create sounds of variable pitch and loudness (104-1, 205-2, 206-7, 301-3)

**THE EAR, HEARING LOSS, AND NOISE POLLUTION**

describe and illustrate how the human ear is designed to detect vibrations and compare the range of sound heard by humans to that heard by some animals (300-3, 300-4)

use decibel in descriptions of sound intensity while investigating the extent of noise pollution and how to reduce it around them and identify devices that produce loud sounds (104-6, 108-1)

identify examples of current sound research and technology, including Canadian contributions (105-1, 107-12, 205-8)

Earth and Space Science: Rocks, Minerals, and Erosion

**COLLECTING AND COMPARING ROCKS AND MINERALS**

demonstrate respect for the local environment (108-3)

investigate rocks and minerals and record questions and observations (204-1, 205-7)

**PROPERTIES OF ROCKS AND MINERALS**



explore physical properties of local rocks and minerals, using appropriate tools to collect and compare with those from other places (204-8, 205-5, 300-5, 300-6)

classify rocks and minerals by creating a chart or diagram that illustrates the classification scheme and compare results with others (104-4, 206-1, 207-2)

 156

LEARNING OUTCOMES FRAMEWORK: GRADES PRIMARY–6

SCIENCE GRADE 4

 **USES FOR ROCKS AND MINERALS**

relate characteristics of rocks and minerals to their uses (300-8)

**EROSION AND WEATHERING**

describe ways in which soil is formed from rocks and demonstrate and describe the effects of wind, water, and ice on the landscape (301-4, 301-5)

**SOIL FORMATION AND COMPOSITION**

demonstrate and record a variety of methods of weathering and erosion, including human impact on the landscape (301-6, 108-6)

**RECORD IN ROCKS**

identify and describe rocks that contain records of Earth’s history (300-7)

**SUDDEN AND SIGNIFICANT CHANGES IN THE LAND**

describe natural phenomena that cause rapid and significant changes to the landscape (301-7)

**Social Studies 4**

**General Curriculum Outcomes**

Students will be expected to

Citizenship, Power, and Governance

A. demonstrate an understanding of the rights and responsibilities of citizenship and the origins, functions, and sources of power, authority, and governance

Culture and Diversity

B. demonstrate an understanding of culture, diversity, and world view, recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives

Individuals, Societies, and Economic Decisions

C. demonstrate the ability to make responsible economic decisions as individuals and as members of society

Interdependence

D. demonstrate an understanding of the interdependent relationship among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future

People, Place, and Environment

E. demonstrate an understanding of the interactions among people, places, and the environment

Time, Continuity, and Change

F. demonstrate an understanding of the past and how it affects the present and the future

 158 LEARNING OUTCOMES FRAMEWORK: GRADES PRIMARY–6

SOCIAL STUDIES

GRADE 4

 **Specific Curriculum Outcomes**

Conceptual Organizer: Explorations

Students will be expected to

**UNIT 1: EXPLORATION**

4.1.1 examine the concept of exploration

**UNIT 2: THE NATURE OF EXPLORATION (EXPLORATION OVER TIME)**

4.2.1 examine the stories of various explorers of land, ocean, space, and ideas

4.2.2 analyze factors that motivate exploration

4.2.3 evaluate the impact of exploration over time

**UNIT 3: EXPLORING OUR WORLD**

4.3.1 examine major physical features of the world

4.3.2 describe the main attributes of rivers, islands, mountains, and oceans

4.3.3 examine the relationship between humans and the physical environment

**UNIT 4: EXPLORING THE LANDSCAPES OF CANADA**

4.4.1 describe the physical landscape of Canada

4.4.2 examine the human landscape of Canada

4.4.3 describe the political landscape of Canada

4.4.4 examine symbols associated with Canada’s landscapes

 **Visual Arts 4**

**General Curriculum Outcomes**

Making

1. Students will explore and manipulate a range of materials, demonstrating an ability to express themselves.

2. Students will use a range of independent and collaborative art-making strategies.

Looking

3. Students will examine a broad range of artworks through time and cultures.

4. Students will interact with sensitivity to and respect for their own artwork and that of others.

Reflecting

5. Students will bring personal meaning to artwork and communicate their discoveries.

6. Students will demonstrate an awareness and appreciation of art as a lifelong process.

**Specific Curriculum Outcomes**

Students will be expected to

1.1 acknowledge and express through art making their personal relationship to the world

1.2 experiment with a range of materials and processes

1.3 use a combination of the visual elements and principles of art and design in art making

2.1 work individually and with others to solve problems and express ideas

3.1 recognize and describe a variety of art forms

3.2 compare art across cultures

3.3 recognize that people use a variety of approaches when making art

3.4 use technology to locate works of art

4.1 show respect for and value their own work and that of others

4.2 share thoughts and ideas about artworks

4.3 recognize that there are many ways of perceiving and knowing

5.1 explore art as a way of expressing ideas and points of view

5.2 demonstrate the ability to ask questions about and respond to art in various ways

5.3 investigate art and the lives of artists within cultural/historical/social contexts

 6.1 demonstrate a sensitivity towards the natural and built environment through their artwork

6.2 examine the effects of the media on their lives

6.3 demonstrate an awareness of the role of art and artists in their local and global communities

6.4 express ideas and points of view through their art