Objectives for the Common Essential Learnings (C.E.L.s)
March 1998

Communication

Numeracy

Critical and Creative Thinking

Technological Literacy

Personal and Social Values and Skills

Independent Learning

In order to accommodate the explicit incorporation of the Common Essential Learnings into curricula, the purposes of each C.E.L. have been outlined in broad general goal statements. Learning objectives which work toward the achievement of these goals have been developed and categorized according to the following grade levels: K-5, 6-9, and 10- 12. It is possible to develop foundational objectives for units of study within subject areas through referencing both the broad goals and the specific learning objectives.

Some examples of foundational objectives from curricula follow:

The student will:

- Develop an understanding of major concepts related to weather through a wide range of language experiences (Communication) K-5 Science
- Develop the ability to access knowledge through seeing people in the home and community as resources for learning (Independent Learning) K-5 Arts Education - Visual Art Strand
- Recognize that understanding the interrelationships among history, climate, resources, and cultural patterns can lead to better understanding of different cultural groups (Personal and Social Values and Skills) Grade 6 Social Studies
- Develop an understanding of how music is created and can be responded to, refined or changed (Critical and Creative Thinking) K-5 Arts Education - Music Strand
- Develop an understanding that technology both shapes and is shaped by society (Technological Literacy) Grade 10 Science

Where possible, objectives for the C.E.L.s are included with subject area objectives in the unit overviews within curriculum documents.

The learning objectives listed for a particular Common Essential Learning can be referenced when developing individual lessons within a unit of study. **These lists of learning objectives are not meant to be complete, final or prescriptive, but rather to provide a source of ideas for further generation and development**.

It is intended that the Common Essential Learnings be developed and evaluated within subject areas. **Therefore, the goal statements contain explicit references to their development within areas of study.** Since the Common Essential Learnings are not necessarily separate and discrete categories, it is anticipated that there may be some overlap among the learning objectives for the C.E.L.s. Working

toward the achievement of one learning objective may contribute to the development of others within the same Common Essential Learning or from other C.E.L.s. For example, many of the processes, skills, understandings and abilities required for the C.E.L.s of Communication, Numeracy, and Critical and Creative Thinking are also needed for the development of Technological Literacy.

In order to familiarize yourself with the objectives in this document, the following steps are suggested:

1. Choose one of the Common Essential Learnings to focus on (e.g., Communication or Technological Literacy or . . .).
2. Read over the **goal statements only** for the one C.E.L. which you have chosen (e.g., Communication has three goal statements).
3. Choose **one of these goal statements** to look at more closely (e.g., the second goal statement for Personal and Social Values and Skills or the third goal statement for Critical and Creative Thinking or …)
4. Before you read over the learning objectives (related to the one goal statement which you have chosen), decide on a subject area and grade level with which you are familiar (e.g., Grade 6 Science or Grade 10 History). Since the development of the C.E.L.s is cumulative, it is most appropriate for Middle and Secondary Level teachers to continue to develop objectives from the previous grade levels. For example, developing students' abilities to "visualize objects, people, or places" can continue throughout Grades 6-9 and 10-12, even though it is listed at the K-5 level.
5. Thinking of a particular subject area and grade level, read over the learning objectives related to the one goal statement which you have chosen (e.g., Grade 7 Social Studies: read over learning objectives for K-5 and 6-9; Grade 11 Biology: read over learning objectives for K-5, 6-9 and 10-12). **Remember, you are looking at the learning objectives related to one goal statement only.**
6. Check off those learning objectives which you think are possible to develop in the subject area and grade level which you have chosen.
7. Develop your own learning objectives which could also work toward the achievement of this goal in the subject area and grade level on which you are concentrating.
8. Repeat this exercise with another goal statement.

The Common Essential Learnings are meant to be developed over a student's entire school experience. That is, the development of the C.E.L.s is cumulative and occurs through all of the subject areas for all of the years which a student attends school.

When developing learning objectives for a lesson within a unit of study, teachers may find it useful to reference the objectives in this document. Reading over the learning objectives related to a grade level may provide some initial ideas around which lessons can be built. When choices are possible, teachers should look toward developing those Common Essential Learnings which have not previously been a major focus in their classroom.

The objectives for the Common Essential Learnings are introduced in the following order:

Communication

The goals of this Common Essential Learning are summarized in the following statements and are pursued in the contexts of school subjects:

- **to use a wide range of language experiences for developing students' knowledge of a subject area**
- **to enable students to use language (listening, speaking, reading, writing) for differing audiences and purposes which are relevant to the students and the subject area**
- **to enable students to understand and use the vocabulary, structures and forms of expression which characterize each area of study**

In order to develop this C.E.L., it is important that the various areas of study provide students with opportunities to:

- use first-hand experiences, whenever possible
- deal with problems and concerns perceived as relevant when observing, discussing, responding to or completing written work for a topic under study
- use expressive language(Note: Expressive language refers to students using their own language in order to better understand the unit under study. See *Understanding the Common Essential Learnings* (1988)), for further discussion regarding expressive language.) to develop understanding of a unit of study
- participate in prelistening, prespeaking, prereading, prewriting, and previewing activities which focus on the important understandings in a unit and which provide linkages to previous experiences and present knowledge
- develop and express understanding within subject areas through a wide range of language activities
- develop their conceptual understanding of vocabulary wherever possible (e.g., through having students determine critical attributes)

To use a wide range of language experiences for developing students' knowledge of a subject area

Learning Objectives

Students will develop their abilities to:

K-5

- discuss or write about the ideas presented using their own language in order to better understand the unit under study

> Note: The emphasis on written work should fall upon writing as one way in which students increase their understanding both of the world about them and of what is presented in lessons. This is opposed to treating writing as storing information (e.g., copying notes) or of assessing achievement (e.g., answering exam and "end of chapter" questions). The central question is: Does the written work being done by the students accurately represent the kinds of learning that are considered to be important in the subject area? The emphasis should be upon

- explore and express the purpose for and the meaning of what they are doing (e.g., in science, students talk about how their `experiment' relates to the principle in question)
- show their understanding of ideas presented by providing an alternate rephrasing, drawing a diagram, making a model, etc.
- summarize important understandings from oral presentations, films, text material, dance performances, discussions, etc.
- identify the message and its purpose in a variety of media (e.g., television, radio, print material, etc.)
- compose questions related to the unit under study and discuss multiple responses (e.g., developing prior questions)

6-9 Continue to develop the abilities in the Elementary Level in addition to the following:

- synthesize ideas gleaned from current reading/discussion/viewing/oral presentations with prior knowledge and understanding
- differentiate main and subordinate ideas
- summarize
- identify critical issues in factual or argumentative messages in print and audio-visual media
- use concept mapping and diagramming for the purposes of understanding ideas, experiences or material
- ask pertinent questions in order to further their own understanding
- clarify the questions of others
- develop questions from titles, headings, sub-headings and topic sentences in text material as one way of developing prior questions before reading

10-12 Continue to develop the abilities in the Elementary and Middle Levels in addition to the following:

- paraphrase and write a précis
- use outlining
- use questions as tools to further their own and others' understanding
- identify critical issues in editorial messages
- explore the influence of media in shaping knowledge, culture and values

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To enable students to use language (listening, speaking, reading, writing) for differing audiences and purposes which are relevant to the students and to the subject area

Learning Objectives Students will develop their abilities to:

K-5

- appreciate and enjoy experiences with literature, picture books, puppet shows, etc.
- listen for various purposes
- share in their own words, ideas which are heard, read, viewed or discussed

Note: When listening to student discussions (in the classroom or on tape), it is important not to bring expectations drawn from written language. It is perfectly normal in conversation for sentences to be incomplete or to change direction, for much of the meaning to be left implicit and not put into words, for speakers not to make explicit the logical relationship of what they are saying to what has gone before, or for their contributions to overlap. It is important to understand what is implicit in the discussion and what capacities the students have which are not often visible in class activities or written work.

- discuss the meaning of a message and the appropriateness of the medium used
- use printing and writing as a means of recording their thoughts
- use their own words to make notes
- use language, vocabulary, structures, pronunciations and volume appropriate to audience and purpose
- interview persons with prearranged questions to acquire information

6-9 Continue to develop the abilities in the Elementary Level in addition to the following:

- skim subject matter material to discover topic inclusion and organization
- organize information for reporting, discussing or sharing
- develop and use point-form notes
- compose paragraphs that focus on one main topic
- compose paragraphs in which points develop logically
- sequence a series of paragraphs so that ideas develop progressively
- identify and understand persuasion and propaganda techniques in all media (e.g., music, loaded words, unsubstantiated claims, etc.)
- respect, understand and empathize with the language, thoughts, artistic expressions and viewpoints of others
- assess nonverbal feedback or messages of listeners, recognize when word choice or structures are not understood and when requests and directions are misunderstood and adjust accordingly
- use the language and concepts of a subject area to develop an argument or present information in formal public modes (e.g., letters, essays, debates, etc.)
- express thoughts and feelings both nonverbally and verbally with appropriate eye contact, facial expressions and speech which enhance the message
- analyze tables of contents of several texts or reference books on the same topic for depth and breadth of topic coverage
- use dictionary, encyclopedia, thesaurus and atlas as references
- use fiction, non-fiction, periodicals and periodical indexes, newspapers, pamphlets and audio-visual materials as resources

10-12 Continue to develop the abilities in the Elementary and Middle Levels in addition to the following:

- demonstrate a cultural sensitivity to the language of others
- use inclusionary language
- clarify, refine, restate, adapt, change, give examples, make analogies, summarize a message when another does not understand
- construct thesis statements and other written constructions required to formulate essays

- synthesize/present the same idea/thought for different audiences (e.g., a business concept for advertisers, board members, managers; a policy change within a company and for the general public, managers, workers; etc.)
- make notes and organize with a system, such as index cards
- chair and summarize the proceedings or discussion of a meeting; take notes
- distinguish between primary and secondary sources of information
- use a variety of resources to cover the breadth and depth of a topic
- use style manuals and government publications as resources

To enable students to understand and use the vocabulary, structures and forms of expression which characterize each area of study

Learning Objectives

Students will develop their abilities to:

K-5

- gradually incorporate the vocabulary of a subject area into their talk and writing

> Note: There is continuous need to work on vocabulary at three levels:
>
> a. useful words necessary to a topic and used in their standard sense. Although these words are not part of the usual vocabulary of a student, these are the words that glossaries do not list and that need to be explained.
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> b. common words used in specialized ways. Sometimes the meaning of a word can change depending on the way in which it is used.
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> c. technical terms, more or less particular to the subject. A word should be introduced as near as possible to the point of use, but it should be part of a program of methodical subject vocabulary building, with the word introduced, used, reviewed, and then put into a subject dictionary by the student. Prior to the teacher's explanation of a word there should usually be a deductive process to help students work toward the meaning of that word from their own knowledge of other uses. Normally it is worth while making use of the relationship between the current meaning and other meanings.

- use text aids (e.g., diagrams, graphs, tables of contents, headings, etc.)
- recognize common visual symbols particular to a subject area use a variety of strategies to interpret or understand the meaning of words (e.g., interpret pictures/charts/diagrams;
- use contextual cues and other systems such as syntactic and graphophonic; etc.)

6-9 Continue to develop the abilities in the Elementary Level in addition to the following:

- understand and use organizational structures within a subject area (e.g., to order ideas sequentially or chronologically, to compare and contrast, to discern cause and effect.)
- look for signal phrases and key words

10-12 Continue to develop the abilities in the Elementary and Middle levels in addition to the

following:

- use the formal procedures required within the subject areas (e.g., lab reports, accounting reports, musical scores, etc.)
- use marginal notes and footnotes
- use headings and subheadings in their writing
- compose reference lists or bibliographies

Numeracy

The intent of this Common Essential Learning is expressed through the following statements pursued in the contexts of the Required Areas of Study and other areas of study:

- **to strengthen students' understanding within subject areas through applying knowledge of numbers and their interrelationships**
- **to strengthen students' knowledge and understanding of How to compute, measure, estimate and interpret numerical data, When to apply these skills and techniques, and Why these processes apply within the particular framework of the subject under study**
- **to develop students' understanding of the uses and abuses of mathematical concepts in everyday life**

To achieve these goals, it is important that the various subject areas provide students with opportunities to:

- participate in activities which focus on real world situations related to the subject area (e.g., developing understanding of Richter scale, perspective in spatial relationships, etc.)
- use a variety of concrete materials to demonstrate their understanding of quantitative information or mathematical concepts
- learn from activities and examples which acknowledge their gender and cultural background through inclusion

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To strengthen students' understanding within subject areas through applying knowledge of numbers and their interrelationships

Learning Objectives Students will develop their abilities to:

K-5

- read and interpret graphs, charts, tables and other common visual representations (questioning or assignments can help students to understand what the numbers mean, the relationship among the numbers and the significance of any number patterns)
- collect and organize quantitative information into a list, table, graph or chart and analyze this information to determine a conclusion
- develop and share their understanding of quantitative information through the use of graphs, tables, charts or timelines
- determine the size of quantities by using some form of a counting procedure (e.g., grouping by twos or tens)
- use fractions and decimals in order to better understand the unit under study
- read commonly seen dials, meters and scales and understand how to interpret these readings
- use benchmarks (non-standard units that are familiar objects or events) as referents in order to estimate (e.g., the library is about as far as the park)

6-9 Continue to develop the abilities in the Elementary Level in addition to the following:

- acquire a "feel" for measurements by learning to associate them with easily understood concrete referents (e.g., doorways are about 2 meters high; milk cartons are usually 1 or 2 litres

in capacity) and use these associations as benchmark values with which to judge the reasonableness of quantitative relationships

- appreciate the concept of scale and proportion in geometric and technical drawings, works of art, maps
- discuss how they obtained estimates in order to help others gain new insights

10-12 Continue to develop the abilities in the Elementary and Middle Levels in addition to the following:

- use the concepts of probability (chance, risk, likelihood, odds, frequency, combination) to enhance understanding in areas of study

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To strengthen students' knowledge and understanding of How to compute, measure, estimate and interpret numerical data, When to apply these skills and techniques, and Why these processes apply within the particular framework of the subject under study

Learning Objectives Students will develop their abilities to:

K-5

- choose the most appropriate means of calculation for particular tasks
- use the language of estimation (e.g., about, close to, just about, a little less than, somewhere between)
- recognize whether a computed answer is sensible
- recognize situations where measurement is necessary and select the appropriate measuring tools (including nonstandard units)
- use, in conjunction with other methods and understanding, quantitative problem solving tools such as calculators or computers
- understand the nature of the quantitative problem/issue and work toward a suitable solution

6-9 Continue to develop the abilities in the Elementary Level in addition to the following:

- understand that divergent thinking and reasoning often precede convergent thinking and solutions to problems
- verify answers by referring to the problem requirements, by checking the validity of each step of the method of solution, by looking for errors in reasoning or information and, wherever appropriate, by using an alternative method of solution
- distinguish between quantitative situations where precision is required and those where approximations are acceptable
- understand the meaning of precision and determine the most appropriate degree of precision for a particular task

10-12 Continue to develop the abilities in the Elementary and Middle levels in addition to the following:

- recognize situations where ratios and proportions can be applied (e.g., handling percentages, determining the better buy of a purchase, and carrying out other types of practical tasks)

- use, in conjunction with other methods and understanding, quantitative problems solving tools such as tables of conversion factors or tables of equivalences

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To develop students' understanding of the uses and abuses of mathematical concepts in everyday life

Learning Objectives Students will develop their abilities to:

K-5

- know when and how to make decisions based on visual observation and interpretation in place of measurement (e.g., the length of a shadow outdoors at noon is shorter than at 4:00 p.m.)

6-9 Continue to develop the abilities in the Elementary Level in addition to the following:

- use an understanding of number to read and complete forms
- understand the meaning and uses of quantitative terms commonly used in everyday life by consumers and workers, business, media, government and other groups
- transfer knowledge of mathematical concepts to everyday applications (e.g., concept of area to carpeting a room)
- understand how statistics can be used to support an argument or claim and be aware that the same statistical figures can lead to seemingly different conclusions
- read and use percentages seen in daily life
- critically examine statements based on percentage increase or decrease

10-12 Continue to develop the abilities in the Elementary and Middle Levels in addition to the following:

- develop an awareness of the reporting techniques commonly used by special interest groups to shape the impact of quantitative data and influence the uncritical reader, listener or viewer
- understand the fundamentals of probability and their use in expressing risks and chances, and making predictions
- read and interpret quantitative information found in newspapers, magazines and government, political and business publications and evaluate the validity of arguments based on such information

Critical and Creative Thinking

See *Renewed Objectives for the Common Essential Learnings of Critical and Creative Thinking (CCT) and Personal and Social Development (PSD) (2008)* for the renewed objectives.

Technological Literacy

The goals of this Common Essential Learning are reflected in the following statements pursued in the contexts of the Required Areas of Study and other areas of study:

- **to develop a contemporary view of technology** (Note: A contemporary view of technology refers to an understanding of technology within the political, cultural and economic frameworks of a society. It includes hardware, "know-how", the use of hardware and people, and the processes of manufacturing, funding and political decision-making within the larger social system. See *Understanding the Common Essential Learnings* (1988) for a fuller discussion of this view.)
- **to develop an understanding that technology both shapes and is shaped by society**
- **to develop students' appreciation of the value and limitations of technology within society**
- **to provide opportunities for students' active involvement in decision-making related to technological developments**

Many of the processes, skills and abilities required for **Communication**, **Numeracy**, and **Critical and Creative Thinking** are also needed for the development of **Technological Literacy**. In addition, the **Learning Objectives** which follow work toward developing an accurate and complete understanding of technology and technological processes within a society.

To develop a contemporary view of technology Learning

Objectives

Students will develop their abilities to:
K-5

- examine their immediate experiences with technology in the home and in the school

> One area in which students may examine the impact of technology on their lives is the development of computer technology. Computers are becoming more common in the school system at all levels. Computer literacy - as one aspect of technological literacy - requires more than programming skills. A curriculum for computer literacy should reflect a blend of the technical, cultural and organizational aspects of computer technology. (From Understanding the Common Essential Learnings, 1988, pp. 38-40.)

6-9 Continue to develop the understandings and abilities in the Elementary Level in addition to the following:

- explore historical developments of particular technologies
- understand the influence of underlying values or assumptions which technological developments
- explore the technical, social and cultural aspects of various media and other technological developments

10-12 Continue to develop the understandings and abilities in the Elementary and Middle levels

in addition to the following:

- understand the existence and influence of decision-makers (Note: For example, technological developments may be guided by the needs of managers who are not necessarily trained in the technical aspects of technology. See *Understanding the Common Essential Learnings* (1988), for further discussion of this issue.) both inside and outside technology
- explore the evolution of technological innovations within subject areas with a focus on the political and social forces that spawned the innovation and the steps involved in the development
- understand how public policy shapes technology
- explore the technical, social and cultural implications of present technology and of impending technological developments as they arise within units of study

To develop an understanding that technology both shapes and is shaped by society

Learning Objectives

Students will develop their abilities to:

K-5

- explore the relationships between the natural and constructed worlds
- explore the impact of technological change on their immediate environment (the natural and constructed world)
- investigate how technology has affected family and community life, past and present
- explore how human needs shape the direction and development of technological innovations within a framework of students' own experiences

6-9 Continue to develop the understandings and abilities in the Elementary Level in addition to the following:

- understand the reciprocal relationships between the natural and constructed worlds
- explore how technological developments cause change in the natural environment (e.g., a bridge over a river) and in society (e.g., distribution of power and status)
- explore the role and influence of technology in the gathering, processing and disseminating of information

10-12 Continue to develop the understandings and abilities in the Elementary and Middle Levels in addition to the following:

- explore the two-way relationship between technology and society (e.g., understand that society can influence the shape of future technologies through funds, public policy, special interest groups and legal routes; and that technology shapes society)
- explore the two-way relationship between technology and science (e.g., understand that technology can influence the course of scientific research and that scientific discoveries can influence technological development)
- understand how technology influences occupational roles within society and affects the workplace (e.g., occupational health, safety, unemployment, etc.)
- critique various media and their influences on values, cultures and ideas

To develop students' appreciation of the value and limitations of technology within society

Learning Objectives

Students will develop their abilities to:

K-5

- explore the distribution and uses of technology in the home, school and community
- understand the benefits and limitations of technological tools used within subject areas
- explore the benefits and risks of technology within the home and community
- use technological innovations as helpful learning tools (e.g., computer, calculator, etc.)

6-9 Continue to develop the understandings and abilities in the Elementary Level in addition to the following:

- explore the evolution of technological innovations within areas of study with a focus on the uses and limitations of the innovation itself
- assess technological developments in terms of usefulness, economic factors, and public and worker health concerns
- explore how various forms of electronic media such as television, video, radio and audio recordings affect the impact of the message
- use media techniques, devices and technology to enhance specific learning situations

10-12 Continue to develop the understandings and abilities in the Elementary and Middle Levels in addition to the following:

- understand the impact of technology on areas of study specifically, and on society in general
- use probabilistic reasoning in relation to analysis of risk related to technological developments
- explore innovations in media technology and their implications

To provide opportunities for students' active involvement in decision-making related to technological developments

Learning Objectives

Students will develop their abilities to:

K-5

- generate and discuss alternatives to particular technological developments
- participate in decision-making processes with regard to technological developments that touch their lives

6-9 Continue to develop the abilities in the Elementary Level in addition to the following:

- participate in decision-making processes with regard to technological developments in the larger community that are relevant and meaningful to students (e.g., civic, provincial, national)
- discuss, explore or debate the appropriateness of a technological innovation in relation to risk/benefit analysis
- examine personal decision-making processes and risk/benefit frameworks as consumers of products of technological developments

10-12 Continue to develop the abilities in the Elementary and Middle Levels in addition to the following:

- understand the interaction of science, technology, society and environment as it relates to local issues, public policies and global problems
- search for, generate, collate and judge the reliability and usefulness of information related to technological developments and decision making
- critically examine technological development with respect to:
  a. arguments presented by developers of technology in support of the innovation
  b. pros and cons of development (e.g., environmental impact)
  c. social forces
  d. economic considerations
- suggest solutions related to technological issues, make decisions regarding their solutions, and where appropriate, take action (e.g., presenting a summary report to a community council)

Personal and Social Values and Skills

See *Renewed Objectives for the Common Essential Learnings of Critical and Creative Thinking (CCT) and Personal and Social Development (PSD) (2008)* for the renewed objectives.

Independent Learning

The intent of this Common Essential Learning is demonstrated through the following statements pursued in the contexts of the Required Areas of Study and other areas of study:

- **to support the development of a positive disposition to life-long learning**
- **to develop students' abilities to meet their own learning needs**
- **to develop students' abilities to access knowledge**

Many of the processes, skills and abilities required for all of the other Common Essential Learnings contribute to the goal of developing independent learners. In order to achieve this goal, it is important that the various subject areas provide students with opportunities to:

- derive pleasure from learning
- grow as independent learners within a classroom environment which promotes self-esteem, curiosity, competence and trust
- experience a wide variety of activities and topics across subject areas so that they can determine what they would like to study in depth
- discover and explore their interests or abilities in various areas of study
- explore issues or topics which address their interests or concerns
- participate in as wide a range of optional ways to learn as possible
- discover meanings and solutions for themselves through active participation in learning activities and experiences
- merge their inner drives (e.g., energies, attitudes, values, curiosities, ideas, needs) with their learning
- participate in experiences which lead to independent exploration or require them to go beyond what the class lesson provides
- share what they have discovered on their own about a particular concept, idea or process introduced in a unit of study
- contribute suggestions into teacher-directed activities
- participate in classroom decision-making processes
- choose among learning options
- participate in learning situations under supervision and direction from the teacher (and others) which allow them to focus on own needs and to draw on own decision-making and problem solving abilities
- take on more responsibility for their own learning as their competence develops
- understand the complexities of information retrieval and use
- grow in confidence and skill in their use of library resources and sustain positive feelings about libraries

To support the development of a positive disposition toward life-long learning

Learning Objectives

Students will develop their abilities to:

K-5

- discover how their efforts can affect their learning

- demonstrate their achievements in a wide range of appropriate ways
- participate in a wide range of learning activities, individually, as well as in cooperation with their teacher(s) or peers
- contribute to the development of objectives, individually, as well as in cooperation with their teacher(s) or peers
- cooperate with and help each other in order to enhance their understanding through sharing information
- appreciate that knowledge of a diversity of ideas, processes and experiences can improve their ability to make choices related to all aspects of learning

6-9 Continue to develop the understandings and abilities in the Elementary Level in addition to the following:

- make choices in learning which reflect their needs and interests
- move from choosing among teacher-directed activities toward self-directed activities that require more student planning and responsibility
- work on in-depth studies of their choice
- develop support strategies and the language of encouragement in order to help their peers persevere at learning tasks
- develop a willingness to take risks as independent learners

10-12 Continue to develop the understandings and abilities in the Elementary and Middle Levels in addition to the following:

- value learning for its own sake and as means to other ends (e.g., for spiritual, intellectual and emotional satisfaction)
- recognize the inevitability of profound change due to advancements in technology, changes in society's values and norms and be prepared to influence change by continuing to learn on an ongoing basis
- recognize that learning is continuous from birth to death (e.g., life experience)

To develop students' abilities to meet their own learning needs

Learning Objectives

Students will develop their abilities to:

K-5

- connect what they already know with what they are learning
- develop questions with a respect for facts, knowledge and social and cultural understanding in order to advance a search for information
- identify their own needs and interests
- focus on and complete learning tasks
- plan brief, self-directed projects and develop criteria for evaluation (with guidance of teachers as required)
- analyze and understand consequences of decisions and results of learning experiences
- work and communicate with others as a means to meeting learning goals
- reflect upon their thinking processes and how they learn

6-9 Continue to develop the understandings and abilities in the Elementary Level in addition to the following:

- look for associations among items of knowledge and extend these relationships through additional inquiries
- learn through synthesizing understandings, experiences, interests and needs
- make decisions based on knowledge of own needs and interests
- cooperate with teachers and others to determine and monitor their learning processes
- organize and manage time and effort with regard to self-discipline, finding resources, etc. in order to meet needs and goals
- construct clear, achievable goals and plan to meet them
- select learning methods appropriate for task and own learning style
- exercise choice with respect to assignment or topic selection, group processes, format for presentation
- negotiate and share responsibilities for own learning in socially acceptable ways
- interpret and report results of learning experiences
- transform their reflections into strategies for action

10-12 Continue to develop the understandings and abilities in the Elementary and Middle Levels in addition to the following:

- determine own learning needs
- decide when and how to request help in meeting learning needs
- develop independence (take more responsibility) regarding planning, monitoring and evaluating of learning experiences (e.g., using contracts; initiating conference with teacher, peers, or others outside of school; planning field trips)
- write up a proposal (Note: Such a proposal could include the following elements: the purpose or objective, a completion date, criteria for assessment, resources to be accessed, preferred method of presentation, suggested audiences for presentation, meeting dates for review and collaboration, etc.) for an individual project
- relate learning outcomes to prior and future needs
- understand that knowledge alone cannot produce wisdom, and that wisdom depends upon the interplay of knowledge, experience and reflection

To develop students' abilities to access knowledge

Learning Objectives

Students will develop their abilities to:

K-5

- understand the importance of libraries as collections of, and links to, information for people of all ages
- understand the role of the teacher-librarian as a guide in meeting individual learning needs
- seek out information from people who may be knowledgeable (e.g., teacher-librarian, other students, parents, teachers, elders, outside agencies and individuals in their community)

- conduct a search for resources or materials (e.g., using card or electronic catalogue, alphabetical order, indexes, Dewey Decimal System, bibliographic information, etc.)
- identify and appropriately use a variety of available resources (e.g., print, human, audio/visual, video/film, electronic database)
- identify and get help in using resources which are not familiar
- use resources individually, in groups and in a one-to-one relationship with another person
- note availability of resources related to a given topic
- scan resources in order to judge suitability
- recognize that limited resources need to be shared equally or returned quickly in order for others to benefit
- contribute to a catalogue of available resources (e.g., people, equipment, sites, experiences)
- use and enjoy the resources and services of the school and public library

6-9 Continue to develop the understandings and abilities in the Elementary Level in addition to the following:

- acquire information at one level, then apply that knowledge to explore other areas
- develop a personal catalogue of available resources (e.g., people, equipment, sites, experiences)
- arrange for guest speakers

10-12 Continue to develop the understandings and abilities in the Elementary and Middle Levels in addition to the following:

- seek information through a steadily expanding network of options, including other libraries, databases, individuals and agencies